

The Development of the Trombone as an Ensemble Instrument During the
Seventeenth and Eighteenth Centuries

by

Monte Hilton Mumford, B.A. Mus. Perf., B.A. Mus. Ed.

Submitted in partial fulfilment of the requirements

for the degree of

Master of Music

University of Tasmania

June 1987

<u>Table of Contents</u>	page
Declaration -----	3
Acknowledgements -----	4
Abstract -----	5
Preface -----	8
Chapter I -----	9
Chapter II -----	22
Chapter III -----	44
Summary -----	74
Appendix - Examples -----	75
Bibliography -----	83

DECLARATION

This thèsis contains no material which has been accepted for the award of any other higher degree or graduate diploma in any University and to the best of this author's knowledge and belief, this thesis contains no material previously published or written by another person, except when due reference is made in the text of the thesis.

ACKNOWLEDGEMENTS

I wish to acknowledge the following people for their invaluable assistance to me during the course of writing this thesis:

Wayne Madden, B. Mus. M. Mus. (Melb.)

Kathleen Mumford, B. Sc. Home Econ. (Seattle Pacific)

Michael McCausland, B.A.S. (New England) B.A. Hons. M.A. (Wales)

Michael Edgar, B. A. Hons. (Leeds) Dip. Ed. (Leeds)

David Cubbin, M. A. (Flinders) M. A. (Adelaide)

ABSTRACT

The Development of the Trombone as an Ensemble Instrument during the
Seventeenth and Eighteenth Centuries

Monte H. Mumford B.A. Mus. (Perf.) 1973, B.A. Mus. Ed. 1974
Seattle Pacific College

Supervisor: Professor David Cubbin

This thesis examines the emergence, decline and re-emergence of the trombone as relating to its use within ensemble music of the seventeenth and eighteenth centuries. It consists of three chapters which include a historical study into the technical development of the trombone, the growth of performance practices pertaining to the instrument and the usage of the trombone within ensembles during this period.

The thesis begins with a discussion on the general knowledge of the trombone's early history and physical development which is mainly drawn from secondary sources. It is concerned with the great Nürnberg instrument manufacturing families, trombone construction specifications and the working mechanics of the instrument.

The second chapter involves a study on the development of the trombone's technical growth in relation to range, technical facility and its ability to control volume, intonation and tone colour. Also contained is an examination of articulation and ornamentation practices that were likely to be employed by trombonists during the seventeenth and eighteenth centuries. The chapter continues with investigation of the various soloistic practices of the instrument. These are supported with musical examples taken from primary sources

dealing with topics covering the instrument's vocal sound, technical ability and its employment by baroque and classical composers.

The third and final chapter of the thesis contains a detailed description of trombone ensemble practices, based on research from primary sources. These include the trombone's participation in the brilliant Venetian polychoral music as well as its use in the major vocal works of the mid- to late Baroque. It also covers the instrument's involvement in Baroque opera, oratorio and vocal chamber works. The chapter continues on with a discussion on the role of the trombone within purely instrumental groups such as *Stadt-pfeifer*, court and church ensembles.

The final section of chapter three contains a thorough investigation dealing with the decline and resurgence of the trombone from mid-seventeenth to the late eighteenth century. Included is a careful consideration of possible reasons behind the decline in the instrument's usage as well as its continued survival during this period. Supporting this section is a study of the trombone's presence in the works of Handel, Mozart and Glück. The chapter concludes with a brief statement on the importance of trombone usage within the Moravian Church of eighteenth century colonial America.

This study arrives at a clearer understanding of the trombone's development, importance, and usage during the seventeenth and eighteenth centuries. Four general conclusions are reached. First, the trombone due to its superior construction was able to meet the high musical standards defined by the early Baroque thus ensuring the instrument's high position of honour. Second, due to this honoured position, trombonists experienced great growth in the area of technical facility encouraging composers of the Baroque to include the instrument in many of their works. Third, the trombone's close association with religious music was undoubtedly a major cause for its decline and the instrument was only saved from total obscurity by early eighteenth-century Viennese court composers. These were men who both valued the trombone's

reputation and realised its potential. Finally the trombone actually flourished in a few localities during a time when many historians considered the instrument to be obsolete.

It is hoped that this study will contribute to the resurgent interest in the trombone's historical involvement during the seventeenth and eighteenth centuries.

PREFACE

There is an enigma in the history of the trombone. Compared with other instruments the trombone has, during its four hundred and fifty years of recorded existence, remained virtually unchanged. It was one of very few instruments to possess complete chromatic potential from its earliest beginnings yet this was only partially realised prior to the nineteenth century. It achieved a highly esteemed ensemble reputation during the early seventeenth century, however, it all but disappeared within one hundred years. The trombone's tone and facility provided it with an ability to produce the breadth of soloistic expression, nevertheless, for the most part it was assigned to the function of reinforcing vocal parts in choral works. The instrument, having reached the limit of obsolescence by the mid-eighteenth century, experienced shortly thereafter a revival that carried it into the nineteenth century romantic orchestra and back to a prominent place among the family of orchestral instruments. This paper is an investigation into the enigma of trombone development during the seventeenth and eighteenth centuries.

HISTORICAL BACKGROUND¹

The early trombone was known by many names. In Spain it was referred to as a *sacabuche* or *saquebute* meaning *draw-trumpet*'. Both the English *sackbut* and the French *saquebute* are related to the Spanish name. In Germany it was known as the *pusine*, which has now become *posaune*, also referred to as the *trumpet of judgement*.² The English term comes from the Italian name *tromba spezzata* or *separated trumpet*. With all these names relating the trombone to some type of trumpet, it is likely that the Renaissance trumpet is the direct ancestor of the trombone.

Early historians believed that the trombone was known to the Romans but modern day scholars have rejected this claim as a case of mistaken identity. It was due in part to the confusion of early terminology relating to the trumpet and trombone within the Italian language. In 1738, some Roman *cornu* (large horns or trumpets) were excavated at Herculaneum. These were described in Italian as *tromba grandi* or *trombone* meaning large trumpet. It is easy to see how confusion was created by the Italian usage of the general term thus relating the trombone to Roman history.

It is impossible to fix a specific date for the first trombone; however, there is evidence pointing to its time of appearance sometime during the early- to mid-fifteenth century. Paintings and rare accounts do exist of public festivals that point towards southern France or northern Italy as the trombone's birthplace. One such painting is an altar work completed between

¹ Contemporary scholarly views of the historical development of the trombone are guided by the work of Phillip Bate, Anthony Baines, Robin Gregory, Henry Fischer and Adam Carse. Much of the following information is drawn from these sources.

² Bate, Phillip, The Trumpet and Trombone, Ernest Benn, London - W.W. Norton, New York, 1978, p. 142.

1460 and 1480 found in a church in Cologne.³ The trombone is also mentioned as being used in the wedding celebration of Charles The Rash, Duke of Burgundy and Margaret of York at Bruges in 1468.⁴

By the late sixteenth century the trombone was in general use throughout Europe with a solid representation in most instrumental ensembles. In the orchestra used in Monteverdi's Orfeo (1607), one finds a consort of trombones, consisting of contrabass, bass, tenor and alto.⁵ By the middle of the seventeenth century trombone usage, due to a complex set of circumstances, began to decline. During the late seventeenth and early eighteenth centuries the instrument underwent very little change with the exception of the addition to the trombone consort of a descant or soprano trombone. This instrument was mainly used for obbligato lines in Viennese religious works. By the mid-eighteenth century trombone usage had been reduced to a minor role of supporting religious vocal works being performed in Salzburg and Vienna. It was at this point that Glück (1714-1787) introduced the trombone into the Classical opera orchestra thus paving the way for revival of the instrument and preparation for its inclusion into the nineteenth century orchestra by Beethoven.

The Great Builders

During the last quarter of the fifteenth century there appeared the first personality of the great brass instrument builders, Hans Neuschel, of Nürnberg who was recorded as the earliest maker of trombones. His skill and reputation were lauded far and wide and he is known to have received orders for his

³ Sauerlandt, Max, Die Musik in Fünf Jahrhunderten der Europäischen Malerei, Königstein im Taunus und Leipzig K.R. Langewiesche, 1922, Plate 9.

⁴ Baines, Anthony, Brass Instruments (Their History and Development), Faber and Faber, London, 1976, p. 108.

⁵ Dorian, Frederick, The History of Music in Performance, W.W. Norton & Co., New York, 1942, p. 67.

instruments from all over Europe. In Papal records an account is given of his demonstration of some of his trombones for Pope Leo X and a subsequent order for some silver trombones for the Pope's chapel. It is apparently Hans Neuschel's genius that is responsible for the development toward the modern trombone. He took a crude instrument and improved the quality of metallurgy and shape thus making it more capable of matching the human voice in tone quality and technical facility. The Neuschel family dominated the craft of trombone building for fifty years.⁶ In 1503 Hans Neuschel died of the plague.⁷ He was succeeded by his son Hans the younger. Hans, with his brother Jörg, in 1557 made the second oldest trombone still in existence today.⁸ This instrument, as attested by many leading trombonists today is very similar to the modern trombone. Only the smaller bell diameter and loose support stays make any noticeable change in appearance. The Neuschel family seemed to form a focal point for craftsmanship which other great builders were attracted to or were apprenticed from.

Another great family of builders located in Nürnberg were the Schnitzers. Albert Schnitzer migrated from Augsburg in 1492 with his son Erasmus and became a Nürnberg citizen in 1547.⁹ Erasmus' tenor trombone built in 1551 is the oldest surviving trombone. It is interesting to note that of the six sixteenth century trombones still remaining today, all but one were made by Nürnberg families: the sixth was a bass trombone made in Rhiems by Pierre Colbert in 1593.¹⁰ This evidence in itself is a statement of the high reputation and

⁶ Lane, George B., 'Instrument Manufacturers' Specifications', International Trombone Association Journal Vol. III Part 1, 1975, p. 13.

⁷ Bate, Loc. Cit.

⁸ Euting, Eric., Geschichte der Blasinstrumente in 16 und 17 Jahrhundert, Berlin, 1889, p. 34.

⁹ Lane, Loc. Cit.

¹⁰ Bate, Loc. Cit.

dominance of the Nürnberg builders. Although no specific date can be fixed for the Nürnberg builders' first trombone, it is believed that they started out as coppersmiths. Hans Neuschel the elder was first listed as a coppersmith and then later named as an instrument maker.¹¹

The Instrument Manufacturing Guilds

As a coppersmith in Nürnberg, Hans the elder would have belonged to a guild. These guilds were known as 'Oath-Guilds' and they were subordinate to the City Council. They were open only to the members' children and the masterworks in demand could only be practised in Nürnberg.¹² However, there were not many brass instrument builders in Nürnberg during the fifteenth century, so the manufacturing of brass instruments was considered a free craft and a guild law was not required. By the early seventeenth century the situation had changed. There were many more instrument builders and the need for protection became evident. In 1625 the Nürnberg Town Council created 'Ordinances and Laws' for the instrument builders to set the number of craftsmen and protect them from unfair competition.¹³ Instrument-making guilds were also to be found in Cremona and in Paris. The prestige of the Nürnberg builders throughout Europe was such that it is easy to see why the masters and the Town Council would be interested in the protection of the honour and livelihood of these important craftsmen.

Technical Development

In a discussion of ensemble usage of the trombone a basic understanding of the construction and specifications of the Baroque instrument is fundamental. For example, there is considerable controversy as to the actual pitch of the tenor trombone. Simply measuring or playing the existing

¹¹ Lane, Op. Cit., Vol. IV, p. 9.

¹² Ibid.

¹³ Ibid.

instruments will not give an immediate answer. One must go back and read what the composers themselves said about the instruments. One must also study their scores which include trombone usage and even then possibly come away no closer to the answer.

Pitch

Most writers¹⁴ for many years have believed the Baroque tenor trombone to be in 'B flat' as the modern trombone is today. More modern research of the Baroque treatises dealing with the trombone by Praetorius¹⁵, Speer¹⁶ and Mersenne¹⁷ now, however, support a tenor trombone in 'A' with varying degrees of evidence. The reason for confusion regarding the actual pitch comes from a possible floating first position.¹⁸ Bates states that this floating first position was necessary to enable trombonists to match the old, high organ pitches, while also allowing them to match the correct *chorton* (choir pitch) which was a fraction lower.¹⁹ This floating first position then can perhaps be considered as the manufacturers' answer to the missing tuning slide. Baines concludes that the trombone was built in a very sharp 'A'.

An interesting argument comes from the music itself. Guion's research into the frequency of 'B naturals' versus 'B flats' in the seventeenth century proves that 'B naturals' overwhelmingly outnumber 'B flats' in Baroque

¹⁴ For instance Philip Bate, Adam Carse, Francis Galpin, Robin Gregory and Kurt Sachs have written supporting a Bb Baroque tenor trombone.

¹⁵ Praetorius, Michael, Syntagma Musicum, Vol. II. Facsimile Reprint by Bärenreiter Kassel, 1958. English Translation of Parts I & II by Harold Blumenfeld, New York, 1980.

¹⁶ Speer, Daniel, Grundrichtiger Unterricht der Musicalischen Kunst Ulm, 1687 - 97, Reprinted by Peters, Leipzig, 1974.

¹⁷ Mersenne, Marin, Harmonie Universelle: The Book on Instruments. Paris, 1639. Translated by Rodger E. Chapman, The Hague, 1957.

¹⁸ Baines, Op. Cit, p. 105.

¹⁹ Ibid.

trombone parts.²⁰ If we accept Guion's interpretation of Speer's position chart as accurate, then 'B flat' is found in seventh position and 'B natural' is found in sixth position making 'B flat' much more difficult to play. Why build a 'B flat' trombone when most Baroque trombone parts would be difficult to perform on it? However, Fischer states in his research that 'B flats' outnumber or match 'B naturals' in the fifteenth and sixteenth centuries so it seems that not even Guion's argument provides firm proof for the 'A' trombone. Considering Speer's slide positions and Praetorius' instructions on finding the correct choir pitch²¹ one might conclude that there were two systems of positions in use. There are so many variables to take into consideration such as the actual shape, bore and even bell position of the Baroque trombone that it is difficult to reach a solid conclusion. The fact that Speer, Praetorius and Mersenne were not themselves trombonists should also be noted. Even what was meant by 'A' or 'B flat' is unclear by today's understanding of pitch. Given that at least two known systems of pitch and possibly more were in use, there is support for Baines' view that the trombone must have been conceived in a very sharp 'A'. This would enable the trombone to move from a middle ground position to either the lower or higher semi-established pitch systems. This becomes even more credible when one realizes that the early trombone did not possess a tuning slide.

The lack of a tuning slide might not create such a situation today, as the trombone is viewed as a completely chromatic instrument. This allows the trombonist to make slide adjustments in the presence of major accompaniment pitch problems. However, it now appears, from all available information, that the trombone was considered a diatonic instrument. Not only does this support the floating first position, but may also be a partial answer to some other

²⁰ Guion, David, 'The Pitch of Baroque Trombones, I.T.A. Journal Vol. VIII, 1980, p. 25.

²¹ Fischer, Henry, The Renaissance Sackbut and its Use Today, The Metropolitan Museum of Art, Stinehour Press, New York, 1984 pp. 6 - 7.

persisting questions about the trombone's role in music history. It might even be considered as one possible reason for its decline in the late seventeenth century. The trombone's decline will be considered in a discussion in Chapter Three of ensemble practices.

The argument for this diatonic concept of the trombone is supported by the early builders' use of crooks. Several sixteenth century instrument inventories list trombones with crooks included. This would mean that crooks were needed to enable the trombonist to change keys like the natural trumpet and that the chromatic possibilities had not been fully explored on the instrument. Praetorius' statement might point to crooks being used as tuning devices. He states that while they were available they were not essential since talented trombonists of his time were able to alter the pitch by use of the mouthpiece and embouchure alone.²² Crooks would not have been used often to change tenor trombones to bass trombones, firstly because the crooks would have made slide movement difficult and secondly because bass trombones had been in existence since the mid-sixteenth century and were readily available. Speer's conception of the trombone's slide positions further supports the diatonic concept of the instrument.²³ Speer reported the trombone as having only four positions relating to the second, fourth, sixth and seventh positions of the modern trombone. However, Speer did recognize the chromatic potential of the trombone in his discussion of 'altered' tones and their production. (See Example 1 for Speer's position chart comparison.²⁴)

Bore, Shape and Bell Size

Concerning construction and specifications of bore, shape and bell size, there exist fine examples from which to study these details in surviving

²² Praetorius, Op. Cit., p. 31.

²³ Speer, Op. Cit., pp. 254 - 255.

²⁴ Fischer, Op. Cit., p. 5.

trombones of the sixteenth, seventeenth and eighteenth centuries.²⁵ The majority of these surviving tenor trombones²⁶ from the earliest period possess narrow bores, that are, roughly nine to ten millimetres.²⁷ There is common belief that the bigger bore instruments were possibly intended to be interchangeable between tenor and bass by the use of a crook dropping the tenor down a fourth. However, this could have created problems already discussed in the previous section. Bass trombones had, relatively speaking, the same bore size as the tenor trombones.

The most prominent feature of the Renaissance sackbut is the shape of the bell section and flare of the bell. While there is considerable variation between existing models, all share many common characteristics.

Firstly, the bell stay is located well back from the bell opening and side connection. Consequently the bell remains free almost to its source (see Example 2). Secondly, the bell continues beyond the third position which marks its termination on modern trombones. The bell itself is rather funnel-shaped, than bell-shaped (see Example 2). The funnel shape is created by the bore of the bell section increasing from its source rather than the middle of the section. Also the bell opening is rather small in diameter, rarely more than 10.5 centimetres.²⁸ This is believed to be a carry-over from the trombone's ancestor, the Renaissance trumpet. This bell shape contributes to a more

²⁵ Personal observation while travelling in Europe in 1977, as well as pictures studied in Fischer, Baines and Groves.

²⁶ Erasmus Schnitzer, tenor sackbut 1551, Nuremburg Collection, Germanisches, National Museum. Anton Schnitzer, tenor sackbut 1579, Verona. Conrad Linczer, tenor sackbut 1587, Hamburg. Anton Drewelwecz, tenor sackbut 1595, Nürnberg Collection.

²⁷ Fischer, *Op. Cit.*, p. 9.

²⁸ *Ibid.*

mellow sound. The bell is reinforced by a collar referred to as a garland, which contains the builder's name, town and date made (see Example 3).²⁹

Mouthpieces

With regard to early mouthpieces one has much less information. Due to their size and the ravages of time, there are fewer examples left to study. Two fine existing examples from the workshops of Anton Schnitzer³⁰ and Isaac Ehe³¹ of Nürnberg with other examples supposedly contemporary, support the notion of some common characteristics: firstly, a flat rim which tends to soften the tone; secondly, a deep hemispherical cup which tends to darken the tone and thirdly, a tight-edged throat opening at the bottom of the cup which tends to give a more defined attack. These distinctive effects of bore, bell and mouthpiece characteristics were largely responsible for the resonant, wide compass of sounds that composers rated so highly during the early Baroque.

Decoration

With regard to decoration, one is looking back to a time when all craftsmen viewed each of their creations as pieces of art. They are personalized signatures of men proud of the works of their hands and their reputations. Trombone builders were no different; great care was taken to embellish each detail of the instrument. There are fine examples of their work to be seen on existing sackbuts of the period. All stays and their connections were minutely engraved, especially the garland around the bell edge (see Example 3). Special ornaments or crests were also to be found at the bell

²⁹ Ibid.

³⁰ Schnitzer, Anton, Mouthpiece circa 1579, Verona Museum.

³¹ Ehe, Isaac, Mouthpiece circa 1612, Nürnberg Collection, Germanisches National Museum.

section bow where the modern trombone tuning slide is normally located (see Example 4).³²

Metals

It is also important to consider the trombone's metal composition and construction when dealing with its tone and the ease of facility in operating its slide. The construction of the surviving early trombones is that of hammered brass or silver with the joints being fitted together.³³ The brass in most cases has a composition of seventy percent copper and thirty percent zinc. This ratio is close to that of today's brasses.³⁴ The tubing and bell are created from flat, hammered brass rolled and brazed together. Both the inner and outer slide tubing are made of seamed brass tubing that must have created much more friction than today's trombone. The modern trombone reduces friction through the use of a stocking which is a raised section 10 centimetres from the end of the inner slides. Also the use of two unlike metals (brass and nickel-silver) helps greatly to reduce friction. The use of the slide for quick technical passages required by some composers of the period must have been difficult to execute due to the friction of the Baroque slide. There is some controversy over the thickness of brass used in the bell section tubing. The master builder had the ability to make both thick and thin walled tubing. The question is did they have a particular sound in mind when they chose a particular thickness to use? Most of the existing sackbuts have walls that measure 0.5 millimetres.³⁵ However, there is one example of a seventeenth century sackbut that differs from the rest. G.B. Lane in an article on

³² Fischer, Op. Cit., p. 10.

³³ Carse, Adam Musical Wind Instruments, Da Capo Press, New York, 1965, p. 223

³⁴ Fischer, Op. Cit., p. 11.

³⁵ Baines, Op. Cit., p. 21.

instrument specifications quotes Robert Sheldon on a seventeenth century sackbut in Stearn's collection with 'paper-thin walls'.³⁶ Sheldon draws two conclusions from this example: firstly, that the paper-thin walled sackbuts were less likely to survive than the thicker-walled instruments hence the lack of surviving examples and secondly, that there was no set standard of thickness used.

It is generally accepted that thicker-walled instruments should produce a darker tone and thin-walled instruments a brighter tone. With this in mind, it is quite possible to conclude that trombones were made to suit the demands of performers and their varying needs, just as today's performers select horns for various musical demands. Since the most common usage of the trombone during the sixteenth, seventeenth and eighteenth centuries was as an accompaniment or ensemble instrument, it was clearly conceived as a soft-toned instrument. This theory is generally supported by comments drawn from Praetorius' and Mersenne's theses regarding the desired tone quality of the sackbut.³⁷

Braces

Most of the existing examples of sixteenth, seventeenth and eighteenth century sackbuts show the instrument to be fully detachable. This is made possible by the use of removable braces (see Example 5).³⁸ The function of the brace is to make the trombone rigid enough to play with as little impendence to the resonance of the instrument as possible. The slide braces were at first flat and were lined with leather probably to avoid scratching the tubing and also to avoid dampening the vibrations. It is a matter of conjecture as to why removable stays were used. Since no instrument cases exist they may have

³⁶ Lane, Loc. Cit.

³⁷ Fischer, Op. Cit., p. 2.

³⁸ Baines, Op. Cit., p. 111.

been used as a means of breaking down the instrument so as to keep it from being damaged. However, it is much more likely a builder's technique for keeping the dampening effect of the brace to a minimum. The bell stay is flat, ornamental and usually soldered to the bell section close to the slide connection but well back from the slide brace (see Example 2).³⁹ This would have restricted the holding position to the slide brace. It is likely that a modern trombonist would generally find this an awkward position creating a balancing problem.

As the difficulty of musical passages increased, the old practice of moving the slide by grasping the lower tube of the slide was changed to holding the slide brace.⁴⁰ Most certainly, the flat slide braces were replaced by round ones shortly after this transition. The holding and moving of a stiff slide by a flat, sharp-edged brace, would have become very uncomfortable over a period of time.

Conclusion

From the evidence of most brass scholars it is likely that the trombone came into being sometime during the fifteenth century and is related to the Renaissance trumpet. Master brass manufacturing families, led by the Neuschels and Schnitzers centred in Nürnberg, developed the trombone close to its present state.

It is now generally accepted that the trombone was pitched in 'A' and conceived as a diatonic instrument. It is the author's belief that the diatonic conception of the trombone, linking it with the cornett, was partly responsible for its decline during the eighteenth century.

³⁹ Ibid, p. 13.

⁴⁰ Numerous examples of iconographic evidence of the Fifteenth and Sixteenth Centuries almost invariably depict trombonists grasping the lower branch of the slide as if to effect its movement.

The bore, shape and bell size of a Renaissance trombone are such that there are only a few recognizable differences between it and a modern trombone. The Renaissance trombones have a narrower bore size, funnel shaped bells and possess fewer braces. The narrow bell and funnel bell combined with the sharply defined characteristics of the Renaissance mouthpiece, give the instrument a mellow, dark, resonant sound contrasting with the bolder, brighter sound of the modern trombone.

Renaissance trombones are finely crafted and in many cases possess beautiful detail and fine engraving. They are made from brass or silver with the techniques of hammering and brazing. There is a varying degree of thickness in tubing used in the bell construction. This probably relates to the kind of tone desired of the instrument, thick walls producing darker tones and thinner walls producing brighter tones. The braces of the earlier trombones are removable. This might have been for the purpose of easy storage. However, it is more likely that it was a device to make the trombone more acoustically resonant, allowing especially the bell section, to vibrate more freely. At first all braces were flat but later the round variety predominated. These were easy to hold and enabled the slide to be moved with finger and thumb tips. The above reasons enabled the trombone to participate in the magnificent polychoric style of music of the early seventeenth century, a truly golden age for brass.

TECHNIQUE DEVELOPMENT AND PERFORMANCE PRACTICES

Three hundred and fifty years separate Baroque music from the modern trombonist who considers the performance practices and technique development of the trombone during that time. As the author has sought to study those practices and developments he has been confronted with a myriad of problems and questions which at the outset have created confusion for many performers. Some of these problems can be resolved by musicianship and sensitivity, others by compromise or discretion. A primary influence helpful in resolving many questions regarding early music has been the resurgence of interest in early brass performance. During the last forty years this interest has spurred research into several areas of early brass performance practices such as articulation, tone, vocalization and ornamentation. This research has caused many brass musicians to reconsider previous beliefs and conceptions of early trombone performance and to rediscover techniques helpful to present day performance of the trombone's Baroque repertoire.

Basic Performance practices

Little concrete evidence exists concerning techniques of performance on the trombone before the nineteenth century. Techniques of performance were considered as secrets of the trade by the various brass guilds and were held in strict confidence amongst their members.¹ It was well into the eighteenth century before teachers and teaching methods appeared. The three existing treatises mentioning the trombone during the Baroque² contain mostly general information which, more often than not, has only created confusion. Of these three, Daniel Speer's Grundrichtiger Unterricht der Musicalischen Kunst contains the most accurate information and understanding of the trombone.

¹ The New Grove Dictionary of Music and Musicians 20 volumes, edited by Stanley Sadie, London: MacMillan Publishers Ltd., 1980, p. 810.

² Praetorius, Op. Cit.

Considering the fact that the trombone has changed so little over the past 350 years it is safe to assume that the tenor trombone was then, as it is now, the most important instrument of the trombone family. Further support for this assumption comes from the fact that Praetorius referred to the tenor as the *gemeine* (ordinary) trombone, implying that other members of the trombone family were used for special requirements. With this in mind, the author will confine this study of technique development and performance practices to the tenor trombone.

Range

An important aspect of seventeenth and eighteenth century trombone technique was range of compass. According to Praetorius, the range of the tenor trombone was from E¹ with the slide fully extended to A³ or basically two and a half octaves. Most music that contains designated trombone parts (Gabrielli, Schütz, Monteverdi, Speer and others) keeps to the middle register and moves within an octave and a fifth. Having viewed or played many examples of these composers' works, the author believes that extreme ranges in ensemble playing were generally avoided. The tenor clef was used consistently for tenor trombone parts but should not be considered as an accurate guide for the choice of instrument for the tenor trombone was quite often capable of playing alto trombone parts. In support of this concept, Antony Baines quotes Praetorius as having a preference for the tenor trombone to the alto trombone commenting that good trombonists on the tenor could play "a pedal 'A' also a 'C' and 'D' in falset, and some extra high notes." ³

Technical Ease and Difficulty

There is an attitude that is common to the twentieth century mind that tends to view craftsmanship and technical knowledge of earlier centuries as being relatively crude and rustic with little ability in precision workmanship. One need not assume that early brass instrument builders lacked the technical knowledge to create serviceable and musically effective trombones. In fact

³ Anthony Baines, article on trombone in Grove's Dictionary of Music and Musicians Vol. VIII, 5th edition, 1966, p. 556.

several fine examples exist to this day. The early trombone slide may not have had the quick action of the modern, light, hydraulically drawn, chromium plated slides with space age silicon lubricants but they were certainly not as sluggish and awkward as some authorities have surmised. Praetorius⁴ in his Syntagma Musicum reports a Munich trombonist as performing "....diminutions with rapid coloraturas and jumps as is done on the viola bastarda or the cornett". The description of technical facility is quite in line with most of today's technical requirements of the trombone repertoire. Further examples can be found in the music of Heinrich Schütz (1585-1672) who composed many religious works scored especially for trombone. One concerto, 'Attendite Populus Meus' from Sacred Symphony Book I (1629) scored for bass voice, four trombones and organ contains several semi-quaver figures in all four trombone parts. Considering the text and overall mood of this work, this piece was probably performed at approximately MM crochet = 104 making it technically demanding.

Lewis⁵, in his fine paper on seventeenth century practices, makes a strong case for a compatible relationship between the technique of the trombone and the tonalities most frequently selected by the composers for their works scored for trombone. In other words, technical problems of slide movement were made easier by selecting keys closely related to the fundamental pitch of the tenor trombone. This was, as discussed earlier, in the key of 'A'. In Lewis' research of several musical examples containing trombone parts, the majority were found to be in the key of 'G' or 'C' major which supports the relationship of key and technical ease. Technical passages lie much easier on the trombone when they are in a key close to the fundamental. The further from the fundamental, the more awkward slide movement becomes.

⁴ Michael Praetorius, Syntagma Musicum (Wolfenbüttel 1614) Vol II, pp 31 - 32.

⁵ Lewis, Edgar Jay Jr, 'The Use of Wind Instruments in the Seventeenth Century Instrumental Music', University of Wisconsin, 1964, pp 236 - 240.

In relation to technique development there is another aspect to consider, that being development through challenge. Man is constantly stretching the limits of achievement. The trombone, because of its shape, size and slide mechanism, has for the past 350 years challenged the apparently impossible, in terms of the extent of technical difficulty. Yet composers' demands and inner expectations of sound possibilities continue to push trombone technique to the furthest limits. Trombone slide technique did not develop just because of fine instruments or easy keys. The players themselves must have been very dedicated to their craft so as to meet the composers' challenges and, by succeeding, encouraged more variety in musical approaches to trombone writing.

Volume

It has been assumed for quite some time that the Baroque trombone, because of its construction, bore diameter, and ensemble associations, was a soft sounding instrument. First of all, it is assumed that the few surviving trombones of the sixteenth and seventeenth centuries are indeed truly representative of the hundreds of other trombones that have not survived for one reason or another. Secondly, it is assumed that, because trombones played with voices, violins, cornettos and block flutes, they were considered a 'soft' instrument. Kurt Sachs, describing the construction of the Baroque trombone states that "The earlier trombone had thicker walls and the bell expanded less than ours. Therefore its sound was softer and more appropriate for playing in small ensembles together with stringed instruments and pipes".⁶

The soft, timid trombone may be a false assumption when one considers the discussion earlier in this paper on the existence of a trombone with paper thin walls in the Sterns Collection, for it follows that if one considers that thick-walled instruments produce dark, softer sounds then thin-walled instruments should produce brighter, louder sounds. There is also considerable iconographic evidence which not only supports the soft 'indoor' ensembles but

⁶ Sachs, Kurt, The History of Musical Instruments W.W.Norton, New York, p.326.

also large 'outdoor' ensembles, which include powerful shawms, trumpets and percussion with trombones.⁷ Indeed, Karl Geiringer, in his Musical Instruments states "Its [the trombone's] tone must always have been characterized by the same nobility, power and solemnity that we admire to this day".⁸ No-one disagrees that the early trombones are quieter than their modern counterpart; it is with the deduction that disagreement arises.

One may conclude that if the Nürnberg trombone builders had been asked to build a louder trombone, they would have built it. The instruments they produced created the desired sound, quite capable of playing in balance with the many diverse ensembles of the time and for that reason were used extensively by so many composers in the early to mid- Baroque. In view of the many fine recordings today of early music, using reproductions of early trombones, it is clear that the volume of Baroque trombones is related to many factors such as bore size, bell shape, mouthpiece size and shape and most importantly the conception of sound. A comment by Mersenne in his Harmonie Universelle reveals that the concept of sound was as important then as it is today for he states that the trombone should not be sounded in imitation of the trumpet but should approach the quality of the human voice to avoid distorting the harmony and covering the voices and other instruments with which it should blend.⁹

As to dynamics, there is scant information to be found in existing music examples, even though dynamic markings were not unknown to composers. There are some works of Schütz and Gabrielli that contain the occasional 'forte' or 'piano', but it seems that there was a general practice of adjusting the levels of sound within the phrase without the use of markings. Praetorius supports

⁷ Nicholson, Joseph, 'Performance Considerations of Early Music for the Trombone With Other Instruments.' I. T. A. Journal, Vol. IV, (1976), pp. 20-21.

⁸ Geiringer, Karl, Musical Instruments: Their History in Western Culture from the Stone Age to the Present, translated Bernard Miall, Oxford University Press, New York, 1945, p. 109.

⁹ Mersenne, Marin, Harmonie Universelle, translated Roger E. Chapman, The Hague, Martinus Nijhoff, 1957, p. 343.

this practice in his Syntagma Musicum by suggesting that the occasional adjusting of the dynamic levels of instruments and voices "adds to the attractiveness of the ensemble".¹⁰ Another authority for this practice is Rodger North who in his autobiography (c.1695) states

"Learn to fill and soften a sound, as shades in needle work, in sensation so as to be like also a gust of wind which begins with a soft air, and fills by degrees with a strength as to make all bend and then softens away again into a temper (temperate strength) and so vanish".¹¹

Donington confirms the presence of expressive dynamics in Baroque music in his book The Interpretation of Early Music. He implies that volume must relate to the music and must be subject to subtle variation. This implies movement within the traditional Baroque concept of terrace dynamics.¹² This practice would be true of trombone usage, as the trombone was considered as an ideal accompaniment instrument for vocal music during the Baroque. It seems clear that there was room for movement to adjust the volume to the flow of the melodic line to achieve proper balance between the trombones and the rest of the ensemble.

Intonation

One of the most important advantages of the trombone during the Baroque, as in present day usage, was its ability to be manipulated so as to control intonation through sensitive adjustment of the slide. This ability to adjust pitch alone would have made it a very popular accompaniment instrument. Montagu supports this view in his book The World of Medieval and Renaissance Instruments by stating "The sackbut was the natural accompaniment for voices because its slide enabled it to play absolutely in

¹⁰ Praetorius, Op. Cit. , Vol III, p. 79.

¹¹ North, Rodger, Autobiography , c. 1695, edited Jessopi, London, 1886, section 106.

¹² Donington, Robert, The Interpretation of Early Music, New Version, Faber and Faber, London, 1975, p. 482.

tune, something that was far more difficult to achieve with the finger holes of most other wind instruments".¹³ This would mean that the trombonist would not have to sacrifice tone quality by having to make lip adjustments to match pitch. This matching would be accomplished by the hand and ear of the trombonist. With this important advantage in mind there can be little wonder why the trombone was held in honour by the leading composers of the early to mid-Baroque.

Tone Colour and Quality

The quality of the early trombone tone was dependent on many factors, both physical and mental. It is important to remember the discussion earlier in this dissertation on the basic construction of the early trombones with regard to bore diameter, bell shape, tubing, mouthpiece and support stays. It was likely that these design features were significant resources employed by early trombonists in determining the quality and colour of tone of the instrument. A narrow bore, such as early trombones possessed, is more likely to produce a thin, light, brilliant sound. As discussed earlier, the Baroque trombone possessed a funnel-shaped bell. This type of bell tends to produce a brightness of tone, because this shape radiates more efficiently the higher partials than the lower ones.¹⁴ The mouthpiece also provides an important contribution toward tone production, although there are some conflicting views regarding the precise shape of early mouthpieces. Since so few of these exist, it is impossible with any degree of certainty to match them with the existing early trombones. Nevertheless, important conjectures about tone quality can be made from the study of these few remaining mouthpieces. As discussed earlier, two fine examples bear some noted characteristics: a flat rim, a deep, funnel-shaped cup and a tight throat. These characteristics that tend to

¹³ Montagu, Jeremy, The World of Medieval and Renaissance Musical Instruments, Ure Smith, Sydney, 1976, p. 104.

¹⁴ Gregory, Robin, The Trombone: The Instrument and its Music, Faber and Faber, London, 1973, p. 30.

soften the tone and darken the sound would also tend to offset the brilliance created by the bore diameter and bell shape of the early trombone.

As to the use of stays and thickness of walls, one must again consider earlier discussion, for these two important aspects of construction figure more prominently than earlier presumed. From the study of existing trombones it becomes clear that trombone makers, like other instrument makers of the period, were concerned about the tone quality of their instruments, since their trombones were designed to resonate easily. Ehmann supports this conclusion in his article 'New Brass Instruments Based on Old Models' when he states "Because of the narrow bore, the exact relationship between conical and cylindrical sections, the narrow bell, the thin walls of tubing and the minimum number of stays, we have obtained a tone which is rich in overtones".¹⁵ This article was written in relation to an experiment Wilhelm Ehmann and trombone builder Helmut Finke were involved in during the early 1950's. The experiment was centred on trying to reconstruct new trombones from the dimensions of old museum piece trombones. The success they enjoyed may be judged from Ehmann's following statement "The tone comes at once. No great effort is needed to bring forth the notes. The tone springs from the lips .. it is impossible to blare with these instruments .. it comes directly from the player and it is as though a part of nature itself has sounded".¹⁶ This must surely be a fitting description of not only these fine reproductions but of the trombones made in the seventeenth and eighteenth centuries.

As significant as these construction considerations may be there is an even more important consideration to take into account, that of personal sound concept. Many writers have agreed that, although the trombone has changed little in its general appearance, performance on the early instrument demonstrates marked tonal differences from its modern counterpart. This tonal difference is not only derived from physical characteristics but from a

¹⁵ Ehmann, Wilhelm, 'New Brass Instruments Based on Old Models', Brass Quarterly, 1/4 June 1958, p. 223.

¹⁶ Ibid.

concept of sound that, it may be concluded, existed during the Baroque. This point is made more relevant by Donington's comment "...the character of Baroque trombone parts undoubtedly suggest a more reticent quality, in the main, than we are used to now; and this must lie with the player still more than with his instrument".¹⁷ It is a well known fact that tonal conception begins in the mind. It is developed through the study of good 'vocal' style, by incorporating a teacher's suggestions and fostering a desired goal of tonal beauty which is inspired by comparative listening to professional role models and one's own sound. Owning a good instrument is helpful in achieving this goal but as Donnington points out: "Reproductions of Baroque trombones are extremely desirable ... but it is the player's conception of his part which is going to be the decisive factor".¹⁸

Therefore during the seventeenth and eighteenth centuries as today, it is likely that a good personal concept of tone was considered most important in developing the ideal trombone sound. What tone the Baroque trombonists considered as characteristic must have had a great effect on the actual tone produced; and surely the composer who, more often than not, conducted his own works, would have defined the type of tone for which he was searching. As a result of these two factors the desired tone would have been achieved. At this point, it is good to consider J. F. Ohl's comment on personal tone conception:

".....every instrumentalist of every period carries in his mind an 'ideal' tone which he tries to produce and is, when playing, continually making small adjustments in the details of his technique in order to achieve this end, regardless of the instrument he is playing at the time....in this aspect of taste, as in all others, there is no absolute".¹⁹

It can be seen then that tone colour and quality depended greatly on musical attitude as well as trombone construction. It would seem that in an age when

¹⁷ Donington, Robert, A Performer's Guide to Baroque Music, Faber and Faber, London, 1973, p. 101.

¹⁸ Ibid.

¹⁹ Ohl, John F., 'The Orchestration of Bach's Vocal Works', unpublished Ph. D. dissertation, Harvard University, 1941, pp. 56 ff.

the human voice reigned supreme, the ideal tone to be imitated would have been that of the human voice. A further investigation of this concept will follow later in this study.

Articulation and Vocalization

The tone production of the trombone was affected by two very important factors, one of shaping the tone through the use of articulation syllables and the other dealing with the need for the instrument to imitate the human voice. In their attempt to emulate the human voice it seems that seventeenth century brass players developed a greater vocalization of tone production through the use of a fairly complex system of multiple tonguing. Until recently modern trombonists have used a fairly straightforward set of articulation syllables; "tu", "du", "ta", "da", "tuku" and "tutu ku". There is now evidence²⁰ that articulation on all wind instruments took on quite a different concept during the Baroque period. It stands to reason that if the human voice was considered the ideal medium, then experimentation by wind players would result in methods of achieving a close approximation of the qualities of the human voice. It should be noted that one of the most important roles for the Baroque trombone was that of vocal accompaniment. A consort of three trombones and two cornettos was considered the ideal in the doubling of choir parts, a widespread practice during the Baroque. There would have been a great demand on trombonists to blend with the voices they were to be unobtrusively doubling and hence there came the development of articulations that would help them achieve a vocal blend. Fromme in his Evidence and Conjectures on Early Trombone Techniques points out that ".....all the Renaissance and Baroque wind tutors admonished the player to emulate the human voice as the ideal model for all wind instruments".²¹

²⁰ Fromme, Arnold, 'Performance Technique on Brass Instruments during the Seventeenth Century', Journal of Research in Music Education, Vol 20, 1972, p. 330.

²¹ Fromme, Arnold, 'Evidence and Conjectures on Early Trombone Technique', I.T.A. Journal Vol. I, 1971-72, p. 4.

As instrumental music drifted away from its strong vocal connections within the Baroque period, it is easy to see how this vocalization was lost, especially when one considers the developments of brass treatment and usage in the developing nineteenth century orchestra. It has only been in recent times, with the revival of early music performance, that the concept of vocalized articulations is once again being considered. With simple experimentation one can hear the difference in sound created by changing the placement of the tongue. As stated above, there are no existing trombone tutors from the Baroque, but other wind tutors such as recorder and trumpet methods have survived. Since all of those contain sections devoted to multiple tonguings relating to tone vocalization, there is no reason to doubt that trombonists would have used similar methods to achieve a more 'vocal' sound with their tone. It is interesting at this point to discuss some of these multiple tonguings and their sound implication. The placement of the tongue, as it affects the shape of the mouth, can have a real influence over the type of sound produced on a trombone. Using the mouth as a resonating body as well as the head cavities, by changing the oral cavity shape, one can produce a wide variety of tone colours. Horsley²², discussing the Baroque wind instrument multiple tonguings refers to Ganossi's recorder tutor Fontegara of the seventeenth century in support of the multiple tonguing concept. Her findings in his tutor report three basic types of tonguing. The first, "téké téké téké", produces an edgy, penetrating attack. The second, "tere tere tere", produces a moderate, even sounding attack and the third, "lere lere lere", produces a mild, legato attack²³. These tonguings may be interchanged to produce a wider variety such as "tere lere téké ta". The beginning consonants may also be altered as well such as 'd' being used instead of 't' or 'l' being replaced by 'r'. The subtle changes in tone colour achieved by the use of a wide range of vocal syllables provides real insight into the sensitivity of Baroque wind player's musical performance. Not

²² Horsley, Imogene, 'Wind Techniques in the Sixteenth and Early Seventeenth Centuries', Brass Quarterly Vol. IV, 1960, p. 58.

²³ Ibid.

only would multiple tonguings have aided tone conception but would also have aided technical ease of movement on the trombone, especially in the area of register change and the performance of rapid passages. As one moves into the upper register of the trombone the mouth must not only contract but also shape the air flow to achieve the desired tonal quality. In the lower register the mouth must open up thus allowing more resonance for the lower pitches. With the use of multiple tonguing syllables, every note can be catered for. As for rapid passages, the smoothest execution involves the least amount of tongue resistance. With the multiple tonguing concept there is a greater ability to match the right syllables to the passage being performed. This certainly would have aided Baroque trombonists in matching the agility of the human voice. This multiple tonguing concept may be one of the most important aspects to seventeenth and eighteenth century trombone performance, and the impact of the rediscovery of this syllabic approach is just beginning to be felt by today's trombonists.

Soloistic Practices

The trombone does not possess a distinguished history of soloistic performance but, throughout its long history, it has enjoyed moments of brilliance. During the early Italian Baroque and eighteenth century Viennese period, the trombone experienced a popularity and prestige in which its potential was realized and its use as a soloistic instrument encouraged. A discussion of the development of the trombone's soloistic practices during these periods is important to understanding its overall development during the seventeenth and eighteenth centuries.

Ornamentation and Improvisation

Any discussion of improvisation techniques of the Baroque period will always contain a certain degree of speculation, for improvisation has always been considered a matter of personal as well as musical taste. One must remember that until recent times the ability to improvise was considered an

essential part of a performer's soloistic ability. Before the sixteenth century the practice of ornamentation was passed on by word of mouth, probably because of the limitations of printing, but by the mid- sixteenth century many treatises were appearing in the art of ornamentation.²⁴ It should be noted at this point that there were both regional and national differences in approaches to ornamentation. Instrumental ornamentation was strongly influenced by the vocal practices of the day, partly because of the desirability to imitate the human voice and partly because of its role in vocal accompaniment. It was also common practice for instrumental groups to perform vocal works as background music for various functions. The 'vocal' concept would have been strong in the minds of the instrumentalists as they played these works, therefore it is most likely that their ornaments would have reflected the desired 'vocal' style.

The Renaissance types of ornamentation generally entered the Baroque period with very little change. Basically there were two types: one dealing with melodic interest and the other dealing with the creation of cadential dissonance, which can be accomplished either harmonically or rhythmically²⁵. Ornaments available to the seventeenth and eighteenth century trombonists would have, no doubt, been the same available to vocalists and other wind players of the time including; the trill, the mordent, both the simple and double appoggiatura, as well as the turn or gruppetto. When considering the performing of ornaments on the Baroque trombone one must also consider the ease in executing these specific types of ornaments. The trill was certain to have presented the greatest difficulty for the early trombonist. True trills are only possible on the trombone in the upper register, which is to say above the seventh partial. Trills were accomplished most likely in the same fashion as they are today, that is by changing syllables rapidly, such as 'ooeeooee' etc.

²⁴ Donington, Robert, The Interpretation of Early Music Faber and Faber, London, 1975, p. 163.

²⁵ Hill, John, 'Performance Practices of the Sixteenth, Seventeenth and Eighteenth Centuries: A Few Practical References for the Trombonist', I.T.A. Journal Vol. IX, 1981, p. 21.

Speer supports this point when he states "Note well: the trills are made with the chin as was mentioned before with trumpets."²⁶ When an authentic trill was not possible, then it is very probable that the mordent would have been used. The rest of the listed embellishments posed no particular technical problems in execution and would have been used frequently to achieve the two basic aims of Baroque ornaments already mentioned. Along with these standard types of ornaments used to create tension and interest in music, rhythmic improvisation was also used by trombonists to embellish the musical line. Common practices included doubling, dotting or creating triplets on ascending and descending quaver lines, breaking into thirds, ascending or descending quaver lines and the use of tempo variation.²⁷

As the use of ornaments increased toward the end of the Baroque and moved into their refined state in the Classical period, embellishments became the mark of the virtuoso trombone soloist. Embellishments were used to show off the performer's ability on his instrument and the ability to trill on the trombone reached a peak under the eighteenth century Viennese composers.

When considering ornamentation practices one must be aware that in all areas of music where individual interpretation is concerned, the musical sensitivity of the trombonist is a primary factor. Such sensitivity was considered important in the seventeenth and eighteenth centuries as well as today, for it seems a great many composers were concerned about the use of 'taste' when embellishing. Donnington in his chapter on Early Baroque Ornamentation quotes the Baroque composer Agazzari as stating (of the instruments of ornamentation):

"The instruments which blend in with the voices in a variety of ways blend in with them for no other purpose, I think, than to add spice to the aforesaid consort thus whoever performs on the lute, the noblest instrument of any, must perform nobly, with great fertility and diversity, yet not, like some who have an agile hand, making continual

²⁶ Speer, Op. Cit, p. 223.

²⁷ Hill, Op. Cit, p. 22.

runs and divisions from start to finish, particularly in combination with other instruments all doing the same, which leaves nothing to be heard but noise and confusion, distasteful and distressing to the hearer."²⁸

Agazzari's comment on ornamentation leads one to believe that there were those who lacked sensitivity in improvising during the Baroque.

Soloistic Capabilities

It is ironic that important developments of trombone performance would occur during a major fall in the instrument's popularity. While there was a general decline in the trombone's use from the mid-seventeenth century up to the end of the eighteenth century, there were important developments under Italian, Viennese and Bohemian composers as previously mentioned. There had been a long tradition of the trombone's importance at the Imperial Court of Vienna going back to the reign of Maximilian. A monumental engraving by Burgkmair in 1516 entitled 'The Triumph of Maximilian'²⁹ prominently displays a trombonist reputed to be none other than Hans Neuchel, the famous trombone builder of Nürnberg. While the popularity of the trombone waned throughout the rest of Europe, for a variety of reasons during the late seventeenth century, it flourished and developed into a highly respected soloistic instrument in Austria and Bohemia under relatively unknown Italian, Austrian and Bohemian composers such as Antonio Bertali (1605-1669), Pavel Vejvanousky (1640-1693), Phillip Rittler (1637-1690), Heinrich Biber (1644-1708) and Johann Schmelzer (1623-1680). The trombone experienced a usage that developed beyond the traditional seventeenth century practice of vocal doubling and consort combinations. These composers put the trombone in a class with the other emerging soloistic instruments of the period such as the violin, oboe, bassoon and cornetto. In studying the scores of the above mentioned composers that contain trombone parts, one can easily see the soloistic expectations placed upon the trombone. These expectations become

²⁸ Donnington, Op. Cit, pp 172-173.

²⁹ Bessler, Heinrich, Die Musik des Mittelalters und Renaissance, Potsdam: Akademische Verlagsgesellschaft Athenaion, 1931, Plate XVII.

even more evident when compared with earlier seventeenth century composer's trombone parts. Consider, for example, this comparison between a soloistic section taken from Heinrich Schütz's 'Attendite Popule Meus' from the Sacred Symphony Book I, for bass voice, four trombones and continuo, and Antonio Bertali's Sonata á 3 for two violins, trombone and continuo (see Example no. 6).

The example from Schütz's Sacred Symphony Book I represents the typical soloistic writing from one of the most renowned composers of the seventeenth century. It should be noted that even though semi-quaver passages are employed, there is no great technical difficulty. The tempo is moderate and the semi-quaver passages are conceived diatonically and lie well on the slide for either alto or tenor trombone. Another appropriate example is the excerpt from Bertali's Sonata á 3.³⁰ (see Example no. 7).

It can be seen that the trombone's entrance is in imitation of, and treated on an equal basis with, the two violin parts. Also the use of skips and leaps that are employed require a keen ear and good slide technique, especially at the allegro tempo required. One is further convinced of the growth and demand of technical facility by studying the three examples from the same sonata (see Examples 8, 9 and 10). Not only does the performance of this sonata demand fluid slide technique but also a very flexible embouchure as demonstrated by the ' B natural' lip trill found in Example 9 and the execution of the demi-semi quaver figures of Example 8 . It is obvious to see that Bertali wrote this sonata with a virtuoso in mind and his writing certainly influenced later Viennese and Bohemian composers of the eighteenth century.³¹

Another interesting comparison can be made concerning the soloistic development of the trombone. Comparing works of the Polish born composer Daniel Speer (1636-1707), who represents the generally accepted trombone writing of the seventeenth century, and that of his contemporary J.H. Schmelzer

³⁰ Wigness, Robert, The Soloistic Use of the Trombone in Eighteenth Century Vienna, The Brass Press, Nashville, 1978, p.12.

³¹ Ibid, p. 13.

(1623-1680) who represents the more progressive expectations of the trombone by Bohemian composers (see Examples 11 and 12).

In comparing this example with the Bertali examples there is a definite conservatism present. Notice the absence of rhythmic and melodic contrast. In fact it is very predictable with very little technical demand placed on the trombonist, even in regards to range. It appears very much the ensemble instrument.

Consider now the demand placed on the trombonist by the excerpt from Schmelzer's Sonata á 3 for violin, trombone, bassoon and continuo (see Example 12). This example demonstrates a technique of range and endurance that far exceeds the demand Speer places on his trombonist. Notice both the rhythmic and melodic interest present in this solo. Virtuoso technique is needed to execute smoothly this passage, a great degree of slide facility, embouchure and slide flexibility are needed here that are conspicuously lacking in Speer's sonata. It is possible that Speer was already feeling the effects of the musical decline of the trombone and that the trombonists he had in mind for this composition were incapable of anything more difficult. This possibility will be examined below.³² It should be noted that the virtuosic ability displayed by eighteenth century Viennese Court trombonists is in direct relationship to the support the trombone received at the hands of the above-seventeenth century composers. While elsewhere in Europe the trombone continued to sink into oblivion, the eighteenth century Court of Vienna saw the trombone develop into a solo instrument. One of the most important Viennese court composers during the eighteenth century was Johann Fux (1660-1741). He was appointed court composer in 1698 by Emporer Leopold I and in 1715, Imperial Conductor.³³ Fux is among the earliest eighteenth century composers to write soloistically for the trombone, and his works show a deep understanding for its soloistic capabilities. An example of his soloistic trombone writing can be found in his Sonata á Quattro written for violin,

³² See p. 60.

³³ Encyclopedia Britannica, Vol. 9, London, 1957, p. 955.

cornetto, trombone, bassoon and organ³⁴ (see Examples 13 and 14). A careful look at these examples will reveal its virtuosic nature in the demands of range and embouchure endurance needed of a trombonist to perform it. There are several such passages as these to further prove that this trombone part was not written for an ordinary musician but one of the highest calibre. Consider the closing bars of this work. There is such slide and embouchure facility displayed here that there can be no doubt as to the soloistic treatment intended for the trombone by Fux in this sonata.³⁵ The influence of Schmelzer's writing on Fux's style of composition for the trombone can be readily identified.

When looking back in time it is always difficult to determine the exact progress of events. Such is the case of the brilliant though isolated Viennese trombone treatment that existed in a sea of decline throughout most of Europe. It is possible that the eighteenth century Viennese composers wrote beautiful challenging soloistic parts for trombone because of the existence of virtuoso players such as the Christian family which produced five brilliant players during the course of the eighteenth century.³⁶ It is also possible, though, that these trombonists' talents were more fully developed by the demands placed upon them by the composers' desire to use more fully the trombone's undeveloped potential. As usual, when trying to find an acceptable solution to questions of this kind, the answer probably lies with a combination of both possibilities. In Vienna two primary factors were present and the reason for the ultimate decline of the trombone elsewhere in Europe may, in part, be attributed to an absence of one of the above factors. Even so the trombone had to wait until the mid- eighteenth century for its first solo concerto appearance.

The earliest known solo concerto comes from the pen of Viennese composer Georg Christoph Wagenseil (1715-1777) and was probably

³⁴ Wigness, Op. Cit, p. 14.

³⁵ Ibid, p. 16.

³⁶ Ibid, p. 41.

composed during the early 1760's.³⁷ As a student of the influential Fux, Wagenseil evidently assimilated his teacher's respect for and use of, the trombone. The high standard of trombone playing available to Wagenseil at the Imperial Court, coupled with the apparent popularity of the instrument, no doubt led him to write this first concerto. As one studies the score of this work one becomes sure that it too was intended for a virtuoso trombonist. The range and endurance level required of the work points to the fact that it was probably conceived for alto trombone. It is possible though to be played by either alto or tenor trombone. However, utilizing an alto trombone does not lessen the embouchure facility or technique needed to render a musical performance of the work (see Example 15).

The Concerto is in two movements: the first Adagio, and the second Allegro Assai. By observing this segment of the first movement one can easily see how the demand for solo virtuosity had developed in all areas of performance. Notice the use of ornamentation, especially the trills, the execution of which demands sensitivity in the embouchure and suggests a high degree of embouchure control. This concerto is not a work for a dying instrument but a work that is, while pleasing to the senses, exploring new soloistic possibilities.

The nineteenth century revival of the trombone owes its successes to the Viennese and Salzburg composers, such as Fux, Wagenseil, Albrechtsberger (1736-1807) and Michael Haydn as well as the virtuosic trombonists of these courts that inspired such innovative solo writing for the trombone.

The Role of the Guilds

No discussion on the development of the trombone as an ensemble instrument can be complete without considering the impact of the music guilds during the seventeenth and eighteenth centuries. The word 'guild', from a musician's standpoint, implies the gathering of musicians into a professional society. There were many benefits to be gained from forming guilds such as

³⁷ Ibid, p. 19.

exclusive performing rights, set performance and teaching standards, monopoly interests, development of behaviour and dress codes, establishment of a hierarchy based on ability and the establishment of provision for sick and invalid members.³⁸ While many of the functions of the guilds were socially based, the most important functions with regard to this discussion are those that deal with teaching and performance practices.

The trombone, being a brass instrument, was considered a thoroughly professionalized instrument, first of all it was expensive to purchase being made of brass, and hand crafted by special order. Secondly, to study and eventually perform on the trombone, a musician had to be a member of one of the brass guilds. To become a member one either had to purchase entrance or be a close relative of a guild member. During the late seventeenth and eighteenth centuries there existed a large body of amateur musicians who enjoyed playing instruments such as the viol, recorder, lute and small keyboards. Their presence created a demand for more information and music on these instruments. This was not so for brass instruments. The playing of brass instruments by amateurs was strongly discouraged in order to maintain high standards of performance and protect to Guild members' positions. As has been already mentioned, the teaching of non-guild members was forbidden. Therefore brass instruments were mainly limited to professional players. This led to high performance standards and economic security being achieved for brass performers. The end result of the guilds' policies and practices led ultimately to stagnation and is another good reason for the trumpet's and trombone's fall in popularity during the first half of the eighteenth century.

The earliest trombone tutor in existence is from the mid-nineteenth century. Almost all of the presently available information in trombone performance practices of the seventeenth and eighteenth centuries comes from secondary sources or conjecture. This then is the legacy of the brass guilds. They produced a small elite set of professional performers who evidently

³⁸ Grove, *Op. Cit.*, p. 8.

created a high standard of brass performance which in turn inspired Baroque composers to write some of the finest brass music we possess today. However, by their exclusiveness they not only doomed their own existence, but also helped to delay trumpet and trombone performance progress in the eighteenth century and came close to robbing future generations of the ability to reproduce their brilliant achievements. On a positive note, many of their social ideals are embodied in today's modern musician unions all over the world.

Conclusion

The last forty years has witnessed a renewed interest in early music performance. The quest for authenticity in these performances has led to varying degrees of research into early performance techniques, in this case, relating to the trombone, one of the few instruments of the late Renaissance that has survived the ravages of time virtually unchanged. Through research one will have noted that in the areas of range, technical facility and intonation, performance on the early trombone is little different from its modern counterpart. However, in the areas of volume, tone colour and articulation, one discovers a different personality of the trombone, a personality akin to that of the human voice, the most prestigious instrument of the seventeenth and eighteenth centuries. Volume was controlled to conform to and blend with the texture of the human voice, and tone colour was employed to imitate its rich sonority. Articulation was accomplished by the use of human vowel shapes to facilitate a more vocal sound and increase flexibility. Even in the area of ornamentation, trombone usage follows that of vocal practices of the period.

Research has also found that during the eighteenth century, a period in which many had previously believed the trombone dead, it in fact flourished at two major courts of the Holy Roman Empire. Not only did it flourish, but it developed into a recognized solo instrument capable of virtuosic performances.

All through the seventeenth and eighteenth centuries the trombone was considered a 'professional' instrument and therefore under guild protection.

Guild laws did much to enhance the trombonists' livelihood, however in their zeal to secure the members' position, the guilds must bear a partial responsibility for restricting further development of the trombone in the eighteenth century through their policy of secrecy.

ENSEMBLE PRACTICES AND USE OF THE TROMBONE

The seventeenth and eighteenth centuries have long been regarded by many brass musicians as a 'golden age' of composition for brass instruments. That the trombone figured prominently in ensemble music during this period is attested by the large amount of iconographic evidence left to us, the great many literary references made to its merits, as well as its use by the most respected composers of the Baroque. During this period, and that which followed, there appeared for the first time compositions calling for specific brass instruments. The importance of the trombone as an ensemble instrument at this time is conveyed by its inclusion in most of the contemporary music of the period. Furthermore, the situations in which the trombone was employed were of major prominence in the musical activities of the cities, courts and churches of Western Europe.

Trombone In Early Baroque Venetian Music

At the beginning of the seventeenth century musicians were becoming aware of a new sonority achieved by the grouping of brass instruments together so as to utilize their colour in terms of dynamic range, compass and powers of expression. It was discovered that this colour was sufficient to exist independently, or be employed quite effectively with voice or other heterogeneous instrumental choirs, as well as its spectacular use in the *Cori Spezzati* style.

The Baroque placed a severe process of selection on existing wind instruments. Those that could emulate the human voice were retained and improved. The trombone possessed those vocal qualities Baroque composers were seeking and thus became an important instrument within the first great music of the seventeenth century, the Venetian polychoral music of Giovanni Gabrielli and Heinrich Schütz.

The Trombone in Instrumental Music of the Early Baroque

It is a generally accepted fact that the practice of designating specific instrumentation began sometime around the turn of the seventeenth century. It may be noted that the Gabriellis were among the first to make such designations, although this practice did not find full acceptance until the first half of the eighteenth century. Indeed, many of Giovanni Gabrielli's works are void of specific instrumentation instructions although their texture and style certainly point to their 'instrumental' intention.

During the Baroque there was considerable freedom given in the selection of instrumentation so it is quite safe to assume that brass ensembles were employed in works not written specifically for their use as long as the given composition was in an appropriate style. This practice is supported by directions to performers in many seventeenth century compositions. Consider this comment found on many Italian ensemble collections: "Buoni da cantare et sonare con ogni sorte di strumenti" (good for singing and playing on any sort of instruments).¹ The flexibility of Baroque musicians comes from the important Renaissance practice of 'doubling'. Musicians were expected to be able to perform competently on several instruments. Evenson refers to a joint letter from six 'Pifari' to the Duke of Parma in 1546 seeking employment stating "...that they could offer six complete ensembles of as many different types of instruments."² This practice of doubling, coupled with the freedom of instrumentation, opened unlimited possibilities for performance practice, and it is probable that Baroque trombonists

¹ Kenten, Egon F. , 'The Brass parts in Giovanni Gabrielli's Instrumental Ensemble Compositions', Brass Quarterly I, (December 1957), p. 74.

² Evenson, Patlee Edward, 'A History of Brass Instruments :The Usage Music and Performance Practices in Ensembles During the Baroque Era', U.S.C. DMA, Music 1960, pp. 210-211.

possessed a wide range of experience in performance practices. This is due to the fact that they were being called upon not only to play many different styles of music, but also to be competent performers on other instruments as well.

The trombone figured prominently in early Baroque instrumental ensembles; in fact the trombone is found in the earliest scores requiring specific instrumentation. Giovanni Gabrielli was the first composer to specify complete instrumentation for his works. In at least one of his compositions, Canzon Duodecimi Toni á 10 for two choirs, he employs three cornetts and one trombone. The combining of cornetts with trombones was to become standard procedure for most of the Baroque. This practice is strongly related to the vocal concepts ruling musical thought throughout the seventeenth and eighteenth centuries. The trombone was expected to cover the bass, tenor and alto voices while the cornett covered the soprano voice. The particular tone quality of the cornett, exuding a velvety dark richness, was particularly suited to match with the trombone's vocal tone qualities, previously mentioned.³ The early trombone possessed a tone quality and timbre that not only allowed it to balance within a homogenous brass choir but also with strings and woodwinds as well. In fact, a favourite heterogeneous instrumental combination was that of trombones supporting a treble line carried by the viola di bastarda or violin.⁴

In Venice, the trombone was held in such high esteem that great numbers were required in some of Giovanni Gabrielli's works. One composition required twelve trombones in three separate choirs.⁵ One needs little imagination to conjure up the sound of twelve trombones in

³ See p. 31.

⁴ Miller, Frederick Staten, 'A Comprehensive Performance Project in Trombone Literature with an Essay on the Use of Trombone in the Music of Heinrich Schütz', University of Iowa, 1974, p. 10.

⁵ Grove, Op. Cit., p. 635.

ensemble with organ, strings and cornettos in the magnificent cathedral of San Marco, Venice. Reverend F. W. Galpin quotes the English traveller Thomas Croyat commenting on the use of trombones which he heard during his stay in Venice at the Feast of Saint Roche in 1608:

"This feast consisted principally of musicke which was both vocal and instrumental - so good, so delectable, so rare, so admirable, so super excellent that it did even ravish and stupefie all those strangers that never heard the like. But how others were affected with it I know not; for mine own part I can say this, that I was for the time even rapt up with Saint Paul unto the third heaven. Sometimes there were sixteen or twenty men together having their master or moderator to keep them in order: sometimes sixteen played together on their instruments - ten sagbuts and four cornetts and two viol de gambae of extraordinary greatness..."⁶

The use at this time of pure instrumental music in the Church was a relatively recent innovation. The most common use of instrumental music was to provide brilliant introductions and interludes to sacred vocal works. Later these would expand into larger self contained works that would be performed as incidental music during various functions of liturgy during the Mass.⁷ These works for instruments alone were written in the forms of canzoni, sonatas and sinfonias. It was, no doubt, this type of instrumental music to which Thomas Croyat was referring.

The Trombone and Vocal Polychoral Music

In 1609 Heinrich Schütz arrived in Venice for the first of his two visits, to study with Giovanni Gabrielli. Schütz's association with this great composer was to have major musical significance for trombone usage. In Venice during this period, Schütz would have found the trombone a popular and widely used instrument. First he would have noticed the

⁶ Galpin, Rev F.W., 'The Sackbut: Its Evolution and History', Proceeding at the Royal Music Association 1906 - 1907, p. 16.

⁷ See p. 60.

trombone being specifically called for in scores. Second, he would have heard the trombone being used to reinforce parts in vocal performances. Besides these, he would he would have witnessed the trombone's heavy involvement in the polychoral technique.

The Practice of Vocal Doubling

One of the most common practices of the Baroque was the reinforcement of vocal parts with trombones, cornetti and strings. These instruments played an important role in augmenting and strengthening vocal choirs performing music in churches. This practice is well documented by written accounts from the period, as well as church records of payments to musicians. Dennis Arnold in his article 'Brass Instruments in Italian Church Music of the sixteenth and early seventeenth centuries mentions a number of these records.⁸ The practice of vocal doubling was much too widespread to suggest that Schütz would have first encountered this practice in Venice. Nevertheless, he is certain to have been influenced by the brilliant combinations of voices and instruments as displayed by Gabrielli in the cathedral of San Marco. One might ask what form the Psalmen Davids (1619) might have taken had Schütz studied in a less 'instrumental' environment. As it is, the Psalmen Davids, Schütz' first major work contains compositions that specifically call for trombones. These works are made quite effective through the use of trombones supporting the vocal line and text and most certainly reflect a strong Venetian influence. Schütz, in his introduction to this work, points out the importance of instrumental support by his suggestion that the works "designated as motets and concerti can be performed more instrumentally than the psalms."⁹ The trombone was ideally suited for

⁸ Arnold, Dennis, 'Brass Instruments in Italian Church Music of the Sixteenth and Early Seventeenth Centuries', Brass Quarterly, 1/2 Dec. 1957, pp. 81 - 92.

⁹ Müller, Erich H., Heinrich Schütz, Leipzig, Breitkopf & Härtel, 1925, p. 63.

the support of vocal lines, especially male voices. The tonal qualities already discussed earlier would make it possible to match and blend unobtrusively with voices as well as enhancing the projection and warmth of the vocal line without distracting from the text. Indeed, Schütz was even able to reinforce the text with the use of trombones.

Trombone Use in the Seventeenth Century Polychoral Style

One of the most important uses of the trombone in the early Baroque is found in the traditional polychoral style which had developed during the late Renaissance and was well established when Schütz arrived in Venice to study with Gabrielli. It was in Venice that polychoral writing had developed, mainly through the compositions of Adrian Willaert (1485 - 1562), and Andrea Gabrielli (1515-1586), at the Cathedral of San Marco. No doubt the development of this unique style was greatly influenced by the acoustical properties inherent in San Marco's construction. It is clear now that even though Gabrielli was noted for specifying instrumentation, he was not consistent in this novel practice. It is generally accepted that trombones were regularly employed in Gabrielli's compositions for split choirs but few of his works contain indications as such. Of the compositions that contain specific instrumentation the trombone is usually grouped heterogeneously with cornetti and or strings, or as a separate homogeneous consort of trombones. Consider, for example, Gabrielli's 'Sonata Pian' e Forte' from Sacrae Symphoniae (1597) for two choirs of instruments: choir one calling for one cornetto and three trombones and choir two calling for one violino and three trombones (see Example no. 16). Another fine example of Gabrielli's compositions demonstrating trombone usage in a homogeneous choir is found in the 'Sonata no. XVIII' from Canzoni e Sonate (1615) where the third choir is scored for four trombones.

Although there are no known purely instrumental compositions from the pen of Heinrich Schütz, his use of instruments, especially that of the trombone, presents some of the most brilliant examples of the seventeenth century polychoral style. The influence of Gabrielli is quite obviously present in Schütz's polychoral works. Schütz's treatment of the trombone bears a strong resemblance to that of Gabrielli in that each composer views the instrument as an equal and independent voice. The differences between the two composers are more likely to be found in compositional technique rather than the fundamental possibilities of the trombone.¹⁰ A fine example of Schütz's use of the trombone can be found in the motet, Die Mit Thranen Saen, from Psalmen Davids (1619). It should be noted that in this work the two trombone choirs present are being used independently of one another in supporting the two opposing vocal lines. Schütz' works frequently required the trombones to work independently so as to take advantage of their unique technical abilities, their range and tonal capacity and to a lesser degree, their colour.¹¹

The Use of Trombone as Accompaniment of Vocal Works in the Mid- to Late-Baroque

Another important function of the trombone in the Baroque and Classical eras was that of vocal accompaniment. The importance of the trombone in vocal doubling has already been mentioned. It is now appropriate to discuss its further growth and development through its continued use as an important instrument in the great vocal works of the mid- to late Baroque.

Baroque Opera

In 1607 Monteverdi's opera Orfeo was performed in Mantua. This work firmly establishing opera as the great music-drama achievement of the Baroque also marks the beginnings of the modern orchestra. Despite

¹⁰ Miller, Op. Cit., p. 21.

¹¹ Ibid., p. 26.

the fact that the trombone was considered a 'religious' instrument, Monteverdi used it in a secular manner. The score of Orfeo calls for five trombones in which they cover the bass parts of the Toccata and other sections.¹² In the third and fourth acts, the five trombones are found supporting the five vocal parts of the various '*Coro di Spiriti*' in the traditional doubling manner.¹³ These two acts take place in the underworld and the use of trombones points to an earlier tradition which associates the instrument with the spiritual realm. This tradition comes from the sixteenth century in which the trombone was 'used to conjure up darkness in the 'Masquerades and Interludes' of the Italian Courts.'¹⁴ Even though the trombone was included in the first important opera score its success was short lived. By the second half of the seventeenth century independent trombone parts disappeared from opera scores, although trombones were still used in the traditional manner of vocal doubling. The trombone does not reappear with significant orchestral parts until Glück's opera Orfeo et Euridice in 1762. The neglect of the trombone in opera is associated with the general decline of trombone usage in the second half of the seventeenth century.¹⁵

Baroque Oratorio

One of the earliest uses of trombone in oratorio is found in Heinrich Schütz's Historia von der Geburt Jesu Christi (1664). In 'Intermedium V' Schütz uses two trombones as accompaniment to the High Priest's recitation of Isaiah's prophecy of the coming Messiah. Schütz' association of the trombone representing the voice of God is implied in Luther's translation of the Bible.¹⁶ The trombones state a brief sinfonia to set the

¹² Pierce, Terry, 'Monteverdi's Use of Brass Instruments', I. T. A. Journal Vol.IX, 1981, p. 7.

¹³ Ibid.

¹⁴ Donington, Robert, Music and its Instruments, Methuen and Co. Ltd., 1982, p. 158.

¹⁵ See p. 61.

¹⁶ I Corinthians, Chapter 15, Verse 52.

mood of the section then continue throughout the work without doubling the vocal line but following independent parts.¹⁷

The next composer to specifically score for trombone in oratorio was the great master of oratorio, Georg Frideric Handel (1685-1759). It has long been assumed that Handel did not have a very high regard for the trombone. It was first believed that only two works, notably the two 'Dead Marches' from Saul (1638) and Samson (1743), contained any trombone parts.¹⁸ However, research has proven the usage of trombones in eight movements of Saul as well as in thirteen choruses of Israel in Egypt (1739).¹⁹ It is interesting to note that prior to Saul, Handel did not make use of trombones, and after Israel in Egypt, with one exception of a dubious appearance of Samson, he never utilised the instrument again. In Saul Handel scores the trombones in four choruses following the traditional church practice of vocal doubling but in the other four sections, he employs them in instrumental sinfonias. At some points within the sinfonias they are the only brass instruments represented. The Oratorio Saul makes a strong case for the fact that Handel knew and understood the potential of the trombone as is well displayed in the work. Israel in Egypt differs from Saul in that there are no separate instrumental sections containing parts for trombone. However, there are several choruses in which trombones again appear as the only brass instruments. Since it is obvious that Handel wrote so skilfully for the trombone one wonders why he ceased to score for it after 1743. The most probable reason is the lack of readily available trombonists. Philip Bate quotes Charles Burney, accountant for the musical activities at Westminster Abbey, relating to his difficulty in finding trombonists for

¹⁷ Evenson, Op. Cit., p. 273.

¹⁸ Blanford, W. F. H., 'Handel's Horn and Trombone Parts', The Musical Times, Dec. 1939, p.794.

¹⁹ Montgomery, James, 'The Use of the Trombone by G. F. Handel', I.T.A. Journal, Vol. XIII no. 3, July 1985, p. 32.

the Handel Festival in 1784 "...the sackbut or double trumpet, was sought; but so many years had elapsed since it had been used in this kingdom that neither the instrument nor performer could easily be found."²⁰ It is rather unfortunate that Handel, who possessed the ability to write well for the trombone was, in all probability, forced to stop writing for it for the lack of players and instruments.

The Lutheran Chorale and Cantata

It is of major importance in the history of brass performance that the chorale is so musically suited to the idiomatic ability of brass instruments. The vocal nature of brass in flowing chordal progression is a moving experience, both for performer and listener. Praetorius (1571-1621), another famous student of Gabrielli, was one of the first Baroque composers to designate specific brass instruments in chorale compositions. It should be noted, however, that within Praetorius' works there are no fundamental differences between vocal and instrumental parts. The text always remains predominant, as the instruments are present to support the text and never detract from it. Again, as previously mentioned, the tonal characteristics of the early trombone seemed perfectly suited to its supportive role in the chorale.

This trend in trombone usage within the Lutheran chorale was continued in J. S. Bach's (1685-1750) sacred cantatas. Trombones appear occasionally in Bach's scores but are always used in the traditional manner of supporting the vocal lines. He never appeared to think of the trombone as an orchestral instrument but perceived it only in the light of a choral voice.²¹ There are twenty-five movements in Bach's sacred

²⁰ Bate, Op. Cit., p. 146.

²¹ Pierce, Terry, 'The Trombone in the Eighteenth Century', I.T.A. Journal VIII, p. 7.

cantatas scored for trombones²²: in all but one movement the trombone is used to double the vocal line.

This particular usage of the trombone by one of the greatest composers of the Baroque can be related to three important points about the trombone as an accompaniment instrument during this period; first, the trombone's strong association with church music; second, its role as a vocal reinforcement; and third, a decline in its importance and exclusion from the emerging orchestra. In spite of the fact that most of the seventeenth and eighteenth centuries saw the trombone performing a secondary function relating to these earlier Church and vocal connections, vocal music requiring trombone accompaniment includes some of the greatest masterpieces of the Baroque. Sadly, many of these works are not yet published and available for modern performance. The trombone today owes its unique vocal ability to its involvement in the great choral works in the seventeenth and eighteenth centuries and these works should be restored to the trombonist's repertoire so as to reunite him with his unique heritage of this period.

Trombone Use in Vocal Chamber Works of the Seventeenth Century

The vocal association of the trombone did not stop with the grand polychoral works of Gabrielli and Schütz. It also found importance within the developing vocal chamber works written in the style referred to by Monteverdi as the 'Second Practice'.²³ An important part to this 'Second Practice' was a departure from the strict Renaissance polyphony and the use of various compositional and orchestrational devices to amplify the emotion of the text. Of the many composers who were influenced by this new Italian Style, Schütz is recognized as one of the undisputed masters. A collection of the richest trombone music of the Baroque is to be found in

²² Terry, Charles Sanford, Bach's Orchestra, Oxford University Press, London, 1932, p. 187 - 237.

²³ Grout, Donald J., A History of Western Music, W.W. Norton and Co., New York, 1960, p. 291.

Schütz's Sacred Symphony Book I. Trombones are included in five of the twenty compositions contained in this book. Found within these five fine vocal/trombone works is the masterpiece 'Fili Mi, Absalon', (SWV 269), the best known of all Schütz's trombone works. Over the years trombonists have come to treasure 'Fili Mi, Absalon' as one of the most profound works in the history of trombone repertoire. This work is written for four trombones, bass voice and continuo and is an excellent example of the 'Second Practice'. Schütz uses bold harmonic progressions and pleading repetitions within the melodic line. He also makes dramatic use of the four trombones in assisting David's Cry "Absalom My Son, Absalom". These all combine to enhance the emotional impact of the lament. The structure consists of a sinfonia, bass solo, sinfonia, bass solo. The trombones return at the end of each bass solo so as to reinforce and emphasize the name 'Absalon' (see Example 17).

Another important composer who utilised trombones to support vocal chamber works was Andreas Hammerschmidt (1612-1675). Harold Mueller quotes Leichtentritt, commenting on Hammerschmidt as "without a doubt the most popular church composer of his time in Germany".²⁴ Hammerschmidt's sonata 'Nun Lob Mein Seel Den Herren' from Kirchen und Taffel Music (1662) contain examples that are representative of Hammerschmidt's orchestrational abilities for the trombone. This work is scored for four trombones, two clarini, solo soprano and continuo. The setting is in the style of a chorale concertato using homophony and imitative counterpoint with contrasting sections. In the first section the trombone quartet carries the weight of the accompaniment in four part imitative chorale style with the clarinos being added to reinforce cadential points. Within the middle section the three top trombones, demonstrating their flexibility, are involved in semi-quaver imitative

²⁴ Mueller, Harold, Editorial Notes on My Soul Now Bless Thy Master, Concordia Publishing House, St. Louis, 1972.

counterpoint between the clarini and solo soprano. In the third and final section, Hammerschmidt scores the trombones and clarini together homophonically contrasting against the solo soprano in towering chords (see Examples 18, 19, 20). This work with its varied use of the trombone provides a fine example of the importance placed on it as a vocal/chamber accompaniment instrument during the mid-Baroque.

It is interesting to note, however, that Hammerschmidt's works scored for the trombone come at the time when trombone usage was diminishing throughout most of Europe. Heinrich Schütz had all but stopped writing for trombone in 1629, apparently because of the lack of trombonists available.²⁵ Again it seems that wherever players existed, composers wrote for the trombone. Soon after the death of Hammerschmidt the instrument entered a period of obsolescence throughout most of Europe. Only within the town bands of Germany and in a few city centres such as Vienna and Salzburg did the instrument retain its importance.

Instrumental Music of the City Courts and Churches Utilizing Trombone

Another important area to be considered in the development of the trombone as an ensemble instrument is that of its involvement within the purely instrumental ensembles of the mid- to late Baroque. Although the trombone had, by the mid-Baroque been considered best suited towards religious vocal accompaniment it had also found favour within the town, court and church ensembles of the period. As early as the mid-sixteenth century the trombone had been considered of major importance to the town musicians throughout Europe.

Tower and City Musicians

At the close of the Middle Ages, Europe was experiencing a significant period of social and economic change. The expansion of trade,

²⁵ See pp. 63-64.

brought on by the Crusades, saw the growth of cities in wealth, size and population. With this growth in population came a breakdown of the old feudal system, as an increasingly ambitious nobility broke itself into smaller units headed by lesser leaders.²⁶ Many of the nobility became less content to live off what their own estates could provide and turned to rob the growing cities and their merchant class. To protect themselves and their riches from their vulnerability to the robber barons, cities of importance built walls and employed watchmen to warn of approaching enemies.²⁷ These men who were stationed in towers on city walls, municipal buildings or churches became known as *Thurmer* or *Towermen*.²⁸ The city supplied them with instruments with which to sound the alarm and also the hour.²⁹ It is from Germany that most information about the employment and activities of these tower musicians derives.

At some point in time during the fifteenth century, the duties of Towermen were increased so as to include attendance at all civic functions, major church activities and festive processions. During this period the title of *Stadtpfeifer* came into use in some cities referring to Town Pipers or Town Musicians in some cases replacing the term 'Thurmer'.³⁰ Aside from their civic duties, Stadtpfeifer could also work for private functions such as weddings or parties to supplement their income. It was the fear of losing these private jobs that caused the Stadtpfeifer to form guilds. These guilds protected the Stadtpfeifer from the competition

²⁶ Swain, John, The Harper History of Civilization, Vol.I, Harper Bros., pub. New York, 1958, pp.457-475.

²⁷ Bowles, Edmonds A., 'Tower Musicians in the Middle Ages', Brass Quarterly 5, 1961/62, p. 91.

²⁸ Downs, Anneliese, 'The Tower Music of a Seventeenth Century Stadtpfeifer; Johann Pezel's Hora Decima and Funffstimmigte Blasende Music', Brass Quarterly XVII, Jan. 1931, p. 3.

²⁹ It is possible that the towermen were requested by the city officials to sound the hour so as to monitor their reliability as watchmen.

³⁰ Bate, Op. Cit., p. 241.

of 'Wandering Musicians'. During the seventeenth century the Stadtpfeifer continued to be the most important group of city employed musicians. They were more numerous than the court and church musicians. Through their guilds they continued to increase the standard of performance, improve the training of apprentices and raise the quality of working conditions for their members.³¹

The growing importance that brass instruments enjoyed during the Renaissance witnessed a major increase during the Baroque to where the sound of brass instruments became more and more associated with the spiritual symbolism that regulated daily lives. Evenson supports this when he states "The sound of brass instruments in particular, was regarded as an awakener of human virtues....".³² The trombone's religious connotations by its association to the voice of God through the Lutheran Bible, quoted earlier, made it one of the most important instruments of the Stadtpfeifer ensemble. Many ascribed spiritual qualities to its tone and it was generally believed that hearing the pure sound of the trombone would inspire true morality and spiritual contemplation. Because of the importance of the instrument, a high level of executant proficiency was considered essential for the Stadtpfeifer. In reality versatility rather than virtuosity was viewed as having greater value to the performer. It was considered important to be proficient on several instruments rather than a virtuoso on a single one, the reason being the variety of commitments required of the musicians. Bate refers to a contract between some French city musicians and a company of Paris hatters that required ten musicians for the Feast of St. Michael in 1569. The contract reflects the versatility required of a typical city musician as

³¹ Evenson, *Op. Cit.*, p. 84.

³² *Ibid.*, p. 83.

Bate states "These men were to play cornetts and violins if it did not rain and flutes and trombones if it did."³³

Although Stadtpfeifer were required to play a wide variety of heterogeneous instruments throughout the fifteenth and sixteenth centuries, the Baroque period saw a change of emphasis in this practice. Cornetts and trombones were now progressing toward being recognized as principal instruments of the Stadtpfeifer ensemble.³⁴ With this process came the establishment of a basic instrumentation consisting of two cornetts and three trombones.³⁵ Doubling of other wind and string instruments was still considered essential but brass instruments were well on their way to becoming recognized as an established ensemble in their own right.

One of the most documented town bands is that of Leipzig. This is most likely because of its close associations with J.S. Bach and the research relating to his twenty year tenure at Thomaskirche, Leipzig.³⁶ There is little reason to suspect that the use of trombone in the Leipzig town band would be much different from that of most influential cities on the continent and it therefore provides a good picture of the trombone's development through the Stadtpfeifer ensembles during the seventeenth and eighteenth centuries. Leipzig town records show that the first Stadtpfeifer was employed in 1479.³⁷ In 1599 a balcony was built on the town hall which provided for outdoor performances of the Stadtpfeifer.³⁸ With the completion of this balcony the Stadtpfeifer developed a tradition of performing two daily concerts, one at 10 am and another at 6 pm, utilizing two cornetti and three trombones.³⁹ The combination of these

³³ Bate, Loc. Cit.

³⁴ Terry, Op. Cit., p. 14.

³⁵ Downs, Op. Cit., p. 36.

³⁶ Bate, Op. Cit., p. 242.

³⁷ Downs, Op. Cit., p. 4.

³⁸ Ibid.

³⁹ Terry, Op. Cit., p.21.

two instruments had been firmly established through its highly favoured use by Venetian composers of the early Baroque. Even though these instruments were very different in design, their tonal qualities, as demonstrated today by performances on facsimile instruments, blended well and produced a mellow, haunting, sonorous sound suited for either indoor or outdoor performances.

It is important at this point to raise the question of why the trumpet/trombone combination did not develop within the town band ensemble. Surely the trumpet possessed better sound projection for outside performance and being made of brass should have been the natural soprano counterpart to the trombone. The answer to this question is twofold. One reason is related to the fact that the trumpet still possessed limited ability in playing diatonically under the seventh partial,⁴⁰ therefore reducing its versatility. However, the major reason for its exclusion from the town band was to do with the exclusive nature of the court trumpet guilds, which prohibited the playing of trumpets by anyone other than a Court Trumpeter. While it is not within the scope of this paper to deal with trumpet guilds and their effect in the development of brass performance, it can be considered probable that the trombone's close association with the cornett was one of the major reasons for its decline in usage during the late seventeenth and early eighteenth centuries. It is interesting to speculate on the fate of the trombone in the classical orchestra. Had it been strongly associated with the trumpet instead of the cornett, within Stadtpfeifer ensembles, the immediate future of the trombone as an orchestral instrument may well have been much more successful.

⁴⁰ The physical characteristics of the brass overtone series do not allow one to produce diatonic scales below the first seven pitches playable on brass instruments.

The trombone's function in the town band was similar to that of its role in other ensembles of the period, filling the alto, tenor and bass lines of the instrumental choir. Again, because of its tonal characteristics, it was able to blend and project well with winds, strings or brass. The repertoire of the town bands consisted of chorales, stylized dance suites and sonatas. Two surviving collections from the Leipzig Stadtpfeifer Johann Pezel (1639-1694) Hora Decima (1670) and Funff-Stimmigte Blasende music (1685) demonstrate many fine examples of the types of compositions commonly performed by Stadtpfeifer of the period.

The importance of the trombone within these ensembles was not restricted to German cities. As previously mentioned, Paris maintained city musicians and at the height of Venice's glory, pomp-loving Venetians required large choirs of trombones for their many festive occasions. For example, one Venetian composer Tiburito Massaino (1550 - 1609?) wrote a work, Canzona á 8 (1608) for eight trombones. Nevertheless, German Stadtpfeifer enjoyed prominence and popularity long after the town musician in non-German cities experienced major decline.⁴¹

Trombone Use in Instrumental Music of the Courts

During the seventeenth and eighteenth centuries the courts of Europe continued to expand their use of brass instruments. The splendour that surrounded everyday court life called for music to contribute to this grandeur. Brass instruments were well suited to this demand. Court musicians, on the whole, enjoyed greater honour, better salaries and, in general, more secure living conditions than most musicians employed by towns and churches. Therefore courts were able to draw the best players to their ensembles.⁴²

While the trumpet appeared to be the most important brass instrument in use by the courts, the trombone did serve with cornetts and

⁴¹ See pp. 64-65.

⁴² Evenson, Op. Cit., p. 128.

other instruments performing religious, vocal and instrumental music for the royal chapels. One impressive use of the trombone within a heterogeneous ensemble of wind instruments is recorded as being included in the music provided for the Austrian Equestrian Ballets of 1667.⁴³ This event took place at the Burghof grounds at Vienna celebrating the Royal Wedding of Margherita Theresa of Spain and Leopold I of Austria. The contemporary woodcuts⁴⁴ displaying mounted trombonists reflects the magnificent pageantry of this unique occasion.

Another important use of trombones in instrumental court ensembles was that of providing consort music for banquets, with each course being heralded with the sound of music.⁴⁵ The kind of food served would, on many occasions determine what type of ensemble would be used. As to the many other types of court music the trombone most likely participated in, one can only speculate, because of the lack of information concerning its use. Most information is scant and deals mainly with records concerning pay and instrument inventories. There is, however, enough pictorial evidence to indicate widespread use of the trombone within the courts of the royalty and nobility.

Trombone Use in Instrumental Music of the Church

While the association of the trombone with large and small vocal groups within the church has already been discussed, it should be noted that the trombone also played an important, if smaller, role in chamber music arising from more intimate situations within religious functions. Instrumental chamber groups utilizing the instrument were common during the seventeenth and eighteenth centuries and much of what these ensembles played can be ascertained from church music publications in

⁴³ Ibid.

⁴⁴ Kinskey, Georg, , The History of Music in Pictures, M. Dent, 1930, p. 186.

⁴⁵ Duffin, Ross, Radio interview entitled 'Recipes for a Renaissance Banquet', Case Western University, broadcast Nov. 16th 1981.

which are found several pieces for instruments alone.⁴⁶ The most common forms used were canzonas, sonatas, ricercar and sinfonias. These forms were mostly used as introductions or interludes to vocal works. Some of these works, however, had total independence from vocal associations and may have served the same function that the organ fulfils in church today; that of providing contemplative, devotional stimulus for meditative worship.

The Church and its high esteem of the trombone is, without a doubt, mostly responsible for its preservation as well as its decline. The trombone's use and importance as a chamber instrument developed in the seventeenth century Church, prepared it for its brilliant, if limited inclusion by the early eighteenth century Viennese composers. Such men as Johann Fux (1660-1741), Franz Tuma (1704-1774) and Georg Christoph Wagenseil (1715-1777) realized the trombone's potential through their bold, imaginative use of it and elevated the instrument to solo status as previously discussed. It is important to remember when assessing these three groups' influence on the development of the instrument, that there was hardly a segment of city, court or church life where people were not touched regularly by the sound of the trombone.

The Decline in Trombone Performance

The mystery of the decline in use of the trombone during the seventeenth and eighteenth centuries has long attracted the attentions of trombonists and musicologists alike. The high favour in which it was held among early Baroque composers appears contradictory to its fall in popularity beginning about the mid-seventeenth century and continuing through to the end of the eighteenth century. In the past few years several questions dealing with the instrument's chromatic potential, tonal versatility, technical facility and universal popularity have been raised.

⁴⁶ Arnold, Loc. Cit.

If the trombone possessed all of these attributes, why then did it come so close to demise during the early Classical period? Why was it excluded from the Classical orchestra? The answers to these questions are apparently bound up in a complex set of circumstances.

The Roots and Causes of the General Decline of Trombone Performance

Early in the late sixteenth century seeds were sown in trombone usage that were to bear the disappointing fruit of decline later on. One factor can be found in the Venitian polychoral practice of vocal doubling which paired the trombone with the cornett. The cornett was a Renaissance hybrid woodwind instrument that utilised the 'lip-reed' mouthpiece principle. The instrument possessed both diatonic, technical agility and tonal beauty. A major reason for its popularity was found in its ability to emulate the human voice. A more subtle reason for popularity lay in its ability to replace the 'forbidden' trumpet. Since the Middle Ages trumpets had been considered the instruments of Royalty. Trumpet players formed powerful fraternities that strongly discouraged non-members from playing the instrument. These fraternities jealously protected their playing techniques as well as their membership through sworn secrecy and sometimes violence. Consider the account of a Hanover Stadtpfeifer's experience which vividly shows this principle in action "The electors' trumpeters once broke into the house of the chief town musician...took his trumpet on which he was practising and knocked out several of his front teeth with it."⁴⁷

No such exception existed for the cornett though, therefore making it available to lower classes. The trombone's tonal adaptability made it a suitable companion to the cornett and thus the musical relationship was formed, but this association had a somewhat limited nature. First, it helped to cast the trombone into a 'church' instrument because of the vocal

⁴⁷ Menke, Werner, History of Bach and Handel, London, 1934, p. 39.

reinforcer role the combination implied. By its vocal quality, this association also created an illusion of the trombone being somewhat more sacred than secular in composers' minds. Secondly, the cornett, due to its inherent weaknesses, was doomed to eventual extinction, as it simply did not possess the tonal properties the exuberant High Baroque demanded. The sound was that of a subtle nature more in keeping with the ideals of the early Baroque whereas the tone of the trumpet possessed both projection and brilliance that made it more fitting to the demands of the late Baroque. When the combination of the cornett/trombone moved into the eighteenth century their association was so firmly fixed that it had developed into a tradition. It had become almost impossible to separate the identities of the two instruments. This therefore led the trombone to continue in the mundane role of vocal doubling and the highlighting of 'spiritual' associations. As the emerging trumpet took its place in the orchestra, putting to rest the cornett, it was the horn, not the trombone, that became the trumpet's partner.

Another factor in the instrument's decline which developed during the sixteenth century was related to the many spiritual associations ascribed to the trombone in the Lutheran Bible. In the translation of the Bible from Latin to German, a vowel shift in the word *busine*, referring to a mediaeval trumpet, occurred resulting in the German word *posaune*, which refers to the trombone. This was in turn used by Luther to describe the 'Trumpet of Judgement'.⁴⁸ This association was to have far reaching implications for trombone performance during the seventeenth century. As previously mentioned, devout Lutheran City Fathers believed that the tone of the trombone possessed the ability to inspire religious piety;⁴⁹ thus the instrument's religious associations were increased by employing

⁴⁸ Bate, Op. Cit., p. 139.

⁴⁹ This most certainly relates to Luther's Translation the 'Trumpet of God' (1st Corinthians, chapter 15, verse 52).

trombones to play chorales from city towers so as to inspire the citizens.⁵⁰ A 1784 quotation by David Schubert from Carse's book The Orchestra of the Eighteenth Century best sums up the general eighteenth century view which derives from the trombone's century long religious cornett/vocal associations "As it is so neglected nowadays, and is played only by wretched cornett players our musical leaders should make an effort to revive this sacred instrument. Nevertheless, there are still some good trombone players, especially in Saxony and Bohemia. Decidedly, the tone of the trombone is best suited for religious, and not for profane, music."⁵¹

A third major cause for decline can be attributed to the impact of the 'Thirty Years War'. One of the most important measurements of trombone popularity is found in Heinrich Schütz's use of the instrument. Early in the seventeenth century he demonstrated an ability to score for the instrument in both the polychoral and concerto styles that has left the trombone with some of the finest masterpieces in its Baroque repertoire. Why did he then generally exclude the instrument from his compositions after 1729? Miller refers to comments made by Schütz in his preface to the Kleine Geistliche Konzert (1636) mentioning the decline of music and other arts throughout Germany at this time on account of war.⁵² The disruptive nature of the 'Thirty Years War' was worsened by the destructive way in which it was fought, especially when one considers the nature of the 'Wolf Army' whose only pay was the loot they were able to plunder from the countryside.⁵³ The tremendous toll taken on the population would also have greatly reduced the numbers of musicians as well as reducing the amount of money available to pay them. Miller points

⁵⁰ Starkey, Willard, Arlington, 'The History and Practice of Ensemble Music for Lip and Reed Instruments', University of Iowa, 1954, p. 175.

⁵¹ Carse, Adam, The Orchestra of the Eighteenth Century, Cambridge, Witleffer and Sons, 1940, p. 43.

⁵² Miller, Op. Cit., p. 43.

⁵³ Each side made use of the 'Wolf Army Principle' for throughout most of the war these armies roamed the country wreaking death and destruction over large areas of central Europe.

out that at one stage, the once magnificent chapel of the Court at Dresden could not muster enough musicians to perform the most basic of musical functions.⁵⁴ Moser states that in 1642 Schütz was forced to beg for singers and even had to borrow a bass from the city of Halle "since there was available in Dresden no foundation part such as contra-bass, bass trombone or contra-bassoon."⁵⁵ Since there were few musicians available to play the trombone and as the likelihood of any performers becoming available in the near future was uncertain, it then becomes easier to understand why Schütz stopped writing for it. In all probability the economic ravages brought about by the 'Thirty Years War' created a scarcity of trombonists. This should be considered as a major contributing factor to the trombone's decline in the second half of the seventeenth century at least in central Europe.

Apart from these elements of decline there exists less obvious factors possibly contributing to the trombone's fall in popularity and perhaps worthy of note at this point. During the early eighteenth century there occurred a singular and relatively abrupt decline of the stadtpfeifer. Since the trombone was strongly linked to these ensembles their demise would have undoubtedly affected the instrument's future use. The decline of the stadtpfeifer has been attributed to the rise in city populations. The cities failed to compensate for the stadtpfeifer's increased duties with the hiring of more musicians. This allowed non-guild member musicians to fill the ever-increasing duties due to increased demands, thus breaking the two century stadtpfeifer monopoly. This changed situation brought with it increased economic difficulties for the stadtpfeifer. As the overall loss in benefits became apparent it grew more difficult to attract talented

⁵⁴ Miller, Loc. Cit.

⁵⁵ Mosser, Hans, Joachim, Heinrich Schütz: His Life and Work, translation from 2nd rev. ed. Carl F. Pfatteicher, Concordia Publishing House, St. Louis, 1959, p. 171.

apprentices. This in turn affected the overall performance standards. The town bands had provided a major opportunity for trombone performance. The demise of these ensembles created a major loss of exposure for trombone performance. As the town bands grew weaker the trombone was increasingly associated with a group of musicians whose reputation was rapidly diminishing. This had the effect of making it a less desirable instrument to use.

There is one last factor for consideration on the subject of the trombone's decline. As ironic as it may seem, it is possible that the trombone's absence in the classical orchestra may have been due, in part, to its advanced state. At this time the orchestra was being built around families of instruments. By the mid-eighteenth century both the string and woodwind families had become harmonically self-sufficient, thus discarding the keyboard as the orchestra's harmonic support. The brass section, however, was still incomplete; whereas the trombone possessed a chromatic facility, the horn and trumpet did not. Consequently the trombone did not yet have a chromatic, treble counterpart. The trumpet and trombone, to a lesser degree, were generally assigned harmonically reinforcing parts, a role not particularly in keeping with contemporary trombone practices of the period. While there is no one simple answer to this complex question of the trombone's decline the above conclusions may dispel some of the misconceptions concerning the instrument's overall decline.

Trombone use continued throughout the eighteenth century as will presently be seen. It appears that the trombone went through a period of re-evaluation in which composers grappled with the traditional concept of trombone sound and practice. When this process was complete it would emerge to take its place as an important individual instrument prepared

for the many diverse responsibilities placed upon it in the coming nineteenth and twentieth centuries.

Trombone Ensemble Performance During the Classical Period

In spite of its decline the trombone made notable appearances in both sacred and operatic works of the eighteenth century Classical composers. Johann Joseph Fux, conductor of the Imperial Court Chapel at Vienna, made much use of the trombone. He often scored them in their traditional role of vocal support but he also assigned them to other roles as well. Pierce mentions the independent nature of the trombone parts in Fux's Missa Corporis Christi (1713).⁵⁶ Pierce points out that the two trombone parts called for in the work not only double the vocal line but have prominent parts in most of the ritornelli as well as carrying the main melodic interest in the sonatina preceeding the actual Mass.⁵⁷

Important Salzburg composers also writing for the trombone included Michael Haydn (1737-1807) and Ernst Eberlin (1702-1762). The most famous of Salzburg composers to write for the trombone was Wolfgang Amadeus Mozart (1756-1791). He too followed the tradition of doubling the vocal line with trombones for the most part. There are two notable exceptions. In Mozart's first mass, Missa Solemnis K139, he includes three trombones within an ensemble of strings which also include two oboes, four trumpets and timpani. In writing for trombones in the mass Mozart departs from the standard practice of doubling, by using them soloistically in sections of the 'Kyrie', 'Credo' and 'Agnus Dei'. In spite of this imaginative use by Mozart in his first complete mass, the rest of his church works revert to using the trombone in the traditional practice with one last exception. Mozart's Requiem K626 provides one of the most moving solos in the trombone repertoire, the 'Tuba Mirum'. It is

⁵⁶ Pierce, Terry, 'The Trombone in the Eighteenth Century', I.T.A. Journal Vol. 8, 1980, p. 7.

⁵⁷ Ibid.

quite possible Mozart's selection of the trombone as an accompanying instrument in the *Tuba Mirum*, *Trumpet of Judgement*, was related to its Germanic association with the 'voice of God.' This solo provides a fine example of the trombone's potential in the hands of a master and foreshadows its nineteenth century orchestral use.⁵⁸ The trombone was on the edge of revival.

Christoph Wilibald Glück (1714-1787) was the first composer to reintroduce trombone into the opera orchestra. Glück's use of the trombone was limited to associations with the underworld and quasi-religious themes which reflects the early Baroque tradition, for example Monteverdi's Opera *Orfeo* in which trombones underscore the underworld theme. However, its appearance at this time still represented new thought on how the trombone might be optimally employed. Glück's scoring represented a considerable change in the manner of writing for the instrument during this period. In his operas he normally wrote for three trombones in order to create harmonic background by scoring their parts close together.⁵⁹ Consider his use of trombones in the opera *Orfeo et Eurydice* (1762). In the 'infernal' scenes he still uses the presence of the trombone to emphasize the realm of the underworld. However, his unique use of the trombone is achieved by a simple harmonic punctuation of the quick moving string parts in the 'Dance of the Furies', which creates a dramatic effect. Once Glück began to use the trombone in opera, other Classical composers imitated his innovative use.

Mozart's style of operatic trombone writing closely resembles that of Glück's. Mozart usually wrote for three trombones as Glück did, using alto, tenor and bass trombones, following Glück's practice of using the instrument to symbolise spirit/underworld associations as well as creating

⁵⁸ It is doubtful that Mozart wrote the trombone parts for the Requiem. However, this does not take away the importance of the solo. If anything, it enhances its value in relationship to the trombone's recovery.

⁵⁹ Bate, *Op. Cit.*, p. 231.

special effects. In his great opera Don Giovanni (1787) the trombone received important dramatic roles. This is especially true in its use at the graveyard scene in the beginning of Act II and again at the end of the opera when the trombones are used to accompany the statue's voice as he comes to drag Don Giovanni to Hell. Although Mozart's operatic use of the instrument may not have contained the technical challenge of his religious works, they were harmonically innovative. For the most part his concept of the trombone remained in the seventeenth century tradition. Nevertheless, his harmonic and dramatic treatment of the instrument was preparing the foundations for nineteenth century trombone usage.

The Moravian Use of the Trombone in Eighteenth Century America

A practice of wind instrument playing similar to the Stadtpfeifer tradition, developed in Germany, was brought to North America by members of the Moravian Community (a religious sect) in the eighteenth century. The Moravians came to America from Moravia and Bohemia because of religious persecution during the early eighteenth century and eventually established several colonies along the Eastern Seaboard. This community brought with them a rich musical heritage, for music played an important role in Moravian daily life. Trombone choirs were particularly favoured by the sect for their religious associations. The earliest account of Moravian use of trombones in America is reported to have been at a birthday celebration in 1731.⁶⁰ Their churches tended to follow the European practice common to the Baroque where the instrument was used for chorale accompaniment and for playing without voices. It appears that the Stadtpfeifer custom of playing chorales from church steeples was retained by the Moravians and the sounds of trombones could be heard at such solemn outside occasions as funeral

⁶⁰ Leaman, Jerome, 'The Trombone Choir of the Moravian Church', I.T.A. Journal Vol. V, 1977, p. 45.

processions.⁶¹ In fact, there is little evidence referring to their indoor use.⁶²

Besides playing at solemn occasions, trombones were also included in many other church functions such as building dedications, special visits, Christmas feasts and Easter services. The prominence of the instrument in the Moravian community is captured in this account of a typical Easter celebration:

"At two o'clock on Easter Sunday morning, the trombone choir or bands (according to the musical wealth of the community) go through the streets of the city playing traditional Easter chorales. Just before sunrise, they gather with the congregation before the church. In the quiet dawn the minister appears in the doorway and announces: "The Lord has risen! He has risen indeed!" A short ritual follows affirming the great promises of God concerning immortality. The minister and congregation, preceded by the trombone choir, then go to the graveyard, and there the service is concluded just as the sun is rising." ⁶³

Considering the isolation of colonial America, it is easy to appreciate that the use of the instrument in these communities was localised and therefore played little if any part in the overall development of the trombone at this time. However, the fact that the instrument survived its transplant to the New World, and held an honoured position there, is worth mentioning. It is important to note that the Moravian use of exclusive trombone choirs is unique in the instrument's history.⁶⁴

⁶¹ Ibid., p. 46.

⁶² Ibid.

⁶³ Keen, Alvin J., 'Musical Aspects of the Moravian Church', Unpublished Masters Thesis, University of Iowa, June 1935, pp. 47 - 48.

⁶⁴ Trombone choirs within the Moravian church are experiencing an exiting revival today. Jeff Reynolds, an American trombonist, has contributed to this revival in recent years with two fine articles in the I.T.A. Journal providing a good rationalization for Moravian trombone choir use as well as providing a serviceable list of compositions suitable for the choir.

Conclusion

Throughout its long history the trombone has rarely been considered a soloistic instrument. Most of its notable achievements have occurred within the context of either ensembles accompanying voices or ensembles accompanying specific functions. At the beginning of the seventeenth century the trombone achieved the height of importance in the polychoral music of Giovanni Gabrielli and Heinrich Schütz. The success of the instrument in this spectacular music also led to its general inclusion in most of the important instrumental forms of the early Baroque, such as opera and the new concerto principle. The strong associations with polychoral music, however, cast the trombone in a role as a vocal church instrument, a position that was to have far reaching implications for the next two centuries. Perhaps the trombone's Church associations were in part responsible for its significant decline in the second half of the seventeenth century.

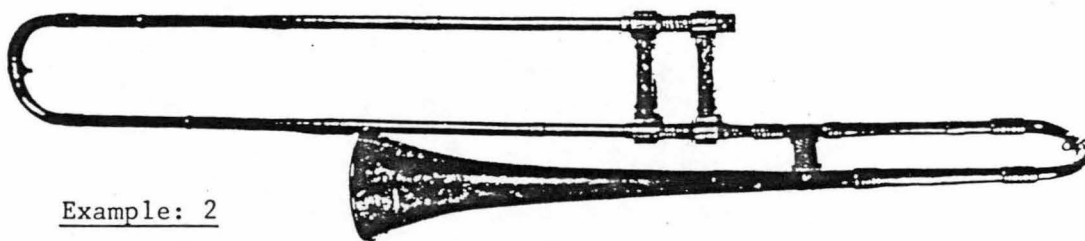
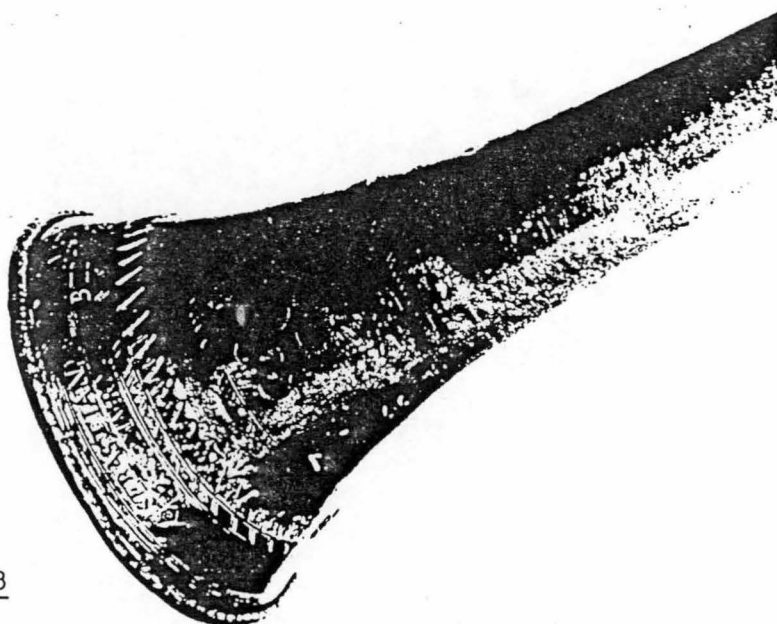
Important strides were made in trombone usage by early eighteenth century Viennese and Salzburg composers, but Glück and Mozart were most responsible for realizing the trombone's potential by developing a change in sound concept. They demonstrated the dramatic possibilities of the instrument through their works and the trombone began to emerge as an instrument capable of powerful presence. With this realization of untapped potential, it began to assume orchestral uses along with its vocal roles, thus preparing it for the nineteenth century Romantic Orchestra.

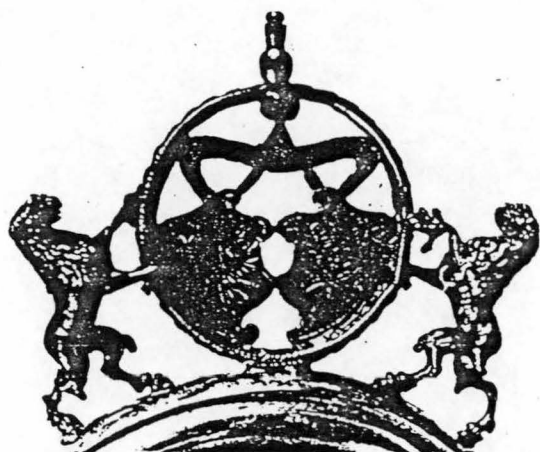
SUMMARY

The development of the trombone during the Seventeenth and Eighteenth Centuries was affected by many variables. The great brass manufacturing families of Sixteenth Century Nürnberg refined the instrument to a high degree of excellence thus providing it with the capability of expressing the vocal expectations of major early Baroque composers. Their apparent high regard for the trombone gave it a place of prominence which also provided opportunities of extensive use in most contemporary music of the period. However, because of its important involvement in Venetian polychoral music, the trombone became linked with the cornetto, an instrument incapable of competing with the emerging trumpet. In addition, the trombone's polychoral affiliations contributed to its strong religious associations. This, in turn, led to the instrument's general neglect, as a majority of Eighteenth Century composers viewed the trombone suitable solely for religious contexts. Nevertheless during this period of relative obscurity certain Viennese court composers continued to write brilliantly for the instrument. These composers' compositions encouraged further development by lifting expectations of both its ensemble and soloistic capabilities. Their contribution prepared the ground for the re-emergence of the trombone and its inclusion into the ranks of Nineteenth Century music ensembles. It is hoped that the trombone music of this vital Eighteenth Century will, in the near future, become more accessible to today's trombonists thus bringing us into closer contact with an important body of literature as well as providing a better understanding of the trombone's historical importance.

APPENDIX

EXAMPLES

Example: 1Example: 2Example: 3



Example: 4



Example: 5



Example: 6 Schütz, 'Attendite Popule Meus', Sacred Symphony Book I

Musica Rara, London, 1962.



Example: 7 Bertali, Sonata à 3, Measures 9-11

Musica Rara, London, 1971.



Example: 8 Bertali, Sonata à 3, Measures 35-40



Example: 9 Bertali, Sonata à 3, Measures 96-98



Example: 10 Bertali, Sonata à 3, Measures 106-110



Example: 11 Speer, Sonata à 3, Measures 5-33

Musica Rara, London, 1979.



Example: 12 Schmelzer, Sonata à 3, Measures 26-70

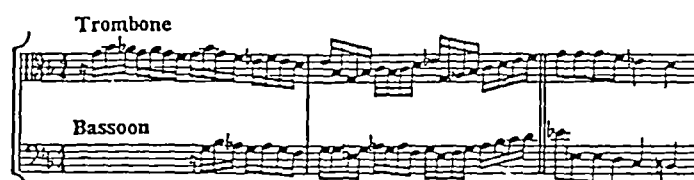
Musica Rara, London, 1972.

Allegro



Example: 13 Fux, Sonata à 4, Measures 158-178

Musica Rara, London, 1976.



Example: 14 Fux, Sonata à 4, Measures 205-207.



Example: 15 Wagenseil, Trombone Concerto, First Movement,
Measures 31-42. Willy Muller, Sueddeutscher
Musikverlag Heidelberg, Pub. 1963.

Sonata pian' e forte

Example: 16 G. Gabrielli, 'Sonata pian'e forte',
Sacrae Symphoniae 1597, Measures 1-29

Example: 17

Schütz, 'Fili Mi,

Absalon.' SacredSymphony Bk. I,

Measures 132-156.

Bärenreiter, Leipzig,
1949.

135

Ab - sa - lon, fi - li mi, fi - li mi, fi - li mi, fi - li
Ab - sa - lon, fi - li mi, fi - li mi, fi - li mi, fi - li

140

Ab - sa - lon, fi - li mi, fi - li mi, fi - li mi, fi - li
Ab - sa - lon, fi - li mi, fi - li mi, fi - li mi, fi - li

145

mi, Ab - sa - lon, fi - li mi, fi - li mi, Ab - sa - lon, Ab - sa - lon
mi, Ab - sa - lon, fi - li mi, fi - li mi, Ab - sa - lon, Ab - sa - lon

150 155

sa - lon, Ab - sa - lon, Ab - sa - lon
sa - lon, Ab - sa - lon, Ab - sa - lon

[illegible][illegible][illegible]

The musical score for "The Rose Tree" is presented in a standard orchestral format. It includes staves for Violins I and II, Violas, Cellos and Double Basses, Flutes, Oboes, Clarinets, Bassoons, Horns, and a full Percussion section. The score is in 2/4 time, with a key signature of one flat (B-flat). The tempo is marked "Allegretto". The score is divided into measures, with a rehearsal mark "①" appearing in the first measure of the Violin I staff. The score is written for a full orchestra, with parts for each instrument clearly delineated.

Example:20

The musical score for Example 20 consists of two systems of staves. The first system covers measures 154 to 164, and the second system covers measures 165 to 168. The instruments are Soprano (Sop.), Tenors I and II (Ten. I, Ten. II), Trombones I, II, III, and IV (Trb. I, Trb. II, Trb. III, Trb. IV), Bassoon (Bop.), and Cello/Viola (Cel. and Vln.). The lyrics are in German. Measure numbers 154, 155, 164, and 165 are indicated above the Soprano staff.

Lyrics for measures 154-164:
 His yearn-ing pit - y o'er dis - tress, Nor treats us
 es man-gelt an sei-ner Er - bar-mung nicht; sein Zorn lässt

Lyrics for measures 165-168:
 as we mer - it, But lays His an - ger by,
 er bald fah - ren, straft nicht nach un - serer Schuld,

Hammerschmidt, 'Nun lob, Mein Seel, den Herren',

Kirchen und Taffel Music (1662),

Example 18, Measures 1-14.

Example 19, Measures 98-105.

Example 20, Measures 154-168.

BIBLIOGRAPHY

BOOKS

APEL, Willi. 'Trombone', Harvard Dictionary of Music. Cambridge, Mass.: Harvard University Press, 1958.

BAINES, Anthony ed. Musical Instruments Through The Ages. Baltimore: Penguin Books 1961.

-----Brass Instruments. London: Faber and Faber, 1976.

-----'Trombone.' Groves Dictionary of Music and Musicians. Edited by Eric Blom, 5th Edition, New York: St. Martins Press, Volume Eight, 1966.

BATE, Philip. The Trumpet and Trombone: An Outline of Their History and Development and Construction. London: Ernest Benn, 1978.

-----'Trombone', The New Grove Dictionary of Music and Musicians. Edited by Stanley Sadie, London: MacMillan Publishers Ltd, 1980.

BESSELER, Heinrich. Die Musik des Imttelatters und Renaissance. Potsdam: Akademische Verlagsgesellschaft, 1931.

BROWN, Howard Mayer. Instrumental Music Printed Before 1600. New York: University Press, 1965.

BUKOFZER, Manfred F. Music in the Baroque Era: From Monteverdi to Bach. New York: W.W. Norton Co. Inc., 1947.

BURNIE, Charles. A General History of Music. London: 1776-89 [Original]. London: Foulis, 1935.

CARSE, Adam. The History of Orchestration. London: Kegan, Paul, 1925.

-----Musical Wind Instruments. New York: Da Capo Press, 1965.

CARSE, Adam. The Orchestra in the Eighteenth Century. Cambridge: Englas W. Heffer and Sons Ltd., 1940.

DAVISON, Archibald T. and APEL, Willi, Eds. Historical Anthology of Music. Volume I: Oriental, Medieval and Renaissance Music. Volume II: Baroque, Rococco and Pre-Classical Music. Cambridge, Mass.: Harvard University Press, 1954, 1956.

DONINGTON, Robert. The Instruments of Music. London: Metheun Co. Ltd., 1949.

-----The Interpretation of Early Music. London: Faber & Faber, 1963.

DONINGTON, Robert. The Interpretation of Early Music. New Version, London: Faber & Faber, 1975.

-----A Performers Guide to Baroque Music. London: Faber & Faber, 1973.

DORIAN, Frederick. The History of Music in Performance. New York: W.W. Norton & Co, 1942.

Encyclopaedia Britannica, Encyclopaedia Britannica. Twenty Four Volumes. Edited by Walter Yust. Chicago, 1957.

EUTING, E. Zur Geschichte de Blasinstrumente in Sixteen u. Seventeen Jahrhundert. Berlin: By the author, 1899.

FINK, Reginald H. The Trombonist's Handbook. Athens, Ohio: Accura Music, 1977.

FISCHER, Henry G. The Renaissance Sackbut and its Use Today. New York: The Metropolitan Museum of Art, 1984.

GALPIN, Francis William. A Textbook of European Musical Instruments, Their Origin, History and Character. New York: E.P. Dutton and Co. Inc., 1937.

GEIRINGER, Karl. Musical Instruments, Their History in Western Culture from the Stone Age to the Present. Translated by Bernard Miall. New York: Oxford University Press Inc., 1965.

-----, Instruments in the History of Western Music. New York: Oxford University Press, 1978.

GREGORY, Robin. The Trombone. London: Faber & Faber, 1973.

GROUT, Donald J. A History of Western Music. New York: W.W. Norton & Co., 1960.

The New Grove Dictionary. The New Grove Dictionary of Music and Musicians. Twenty Volumes, Edited by Stanley Sadie, London: MacMillan Publishers Ltd., 1980.

HARRISON, Frank and RIMMER, Joan. European Musical Instruments. London: Studio Vista, 1964.

KINSKI, George. A History of Music in Pictures. London: Dent, 1930-37.

KLEINHAMMER, Edward. The Art of Trombone Playing. Evanston: Summy-Birchard Co., 1963.

MARCUSE, Sybil. A Survey of Musical Instruments. New York: Harper and Row Publishers, 1975.

MENKE, Verner. History of the Trumpet of Bach and Handel. Translated by Gerald Abraham, London: W. Reeves, 1934.

MERSENNE, Marin. A Harmonie Universalle. The Books on Instruments. Translated by George E. Chapman (Originally published 1636). The Hague: Martinis Nyhoff, 1957.

MOSER, Hans Joachim. Heinrich Schütz, His Life and Work. Translated from Second Revised Edition by Carl F. Pfatteicher. St. Louis: Concordia Publishing House, 1959.

MONTAGU, Jeremy. The World of Medieval and Renaissance Musical Instruments. Sydney: Ure Smith, 1976.

MUELLER, Erich. Heinrich Schütz. Leipzig: Breitkopf and Hartel, 1925.

MUELLER, Harold. Editorial Notes on Andreas Hammerschmidt's My Soul now Bless thy Maker. St. Louis: Concordia Publishing House, 1972.

NORTH, Roger. Autobiography. c. 1695, Edited by Jessopi, London: David Nutt, 1887.

PRAETORIUS, Michael. Syntagma Musicum. Volume II, 'De Organographia'. Wolfenbüttel, 1619. Facsimile reprint by Bärenreiter, Kassel, 1958, Parts I & II by Harold Blumenfeld. New York: Da Capo Press, 1980.

REESE, Gustave. Music in the Renaissance. New York: W.W. Norton & Co. Inc., 1959.

REMNANT, Mary. Musical Instruments of the West. London: B.T. Batsford Ltd., 1978.

SACHS, Curt. The History of Musical Instruments. New York: W.W. Norton & Co., 1940.

SAUERLANDT, Max. Die Musik in Fünf Jahrhunderten der Europäischen Malerei. Königstein im Taunus und Leipzig, K.R. Langewiesche, 1922.

SPEER, Daniel. Grundrichtiger Unterricht der Musikalischen Kunst. Ulm: 1687, 1697, Reprinted by Peters, Leipzig, 1974.

SWAIN, John. The Harper History of Civilization, Vol. I. New York: Harper Bros., 1958.

TERRY, Charles Sanford. Bach's Orchestra. London: Oxford University Press, 1932.

WIGNESS, Robert. The Soloistic Use of the Trombone in Eighteenth Century Vienna. Nashville: The Brass Press, 1978.

ARTICLES

ANDERSON, Stephen. 'The History and Music of Tuma'. International Trombone Association Journal Vol. XIV no. 3, [Summer, 1986], pp. 48-53.

ANDERSON, Stephen. 'Selected Works from the Seventeenth Century Music Collection of Prince - Bishop Karl Liechtenstein - Kastlkorn: A Study of the Soloistic Use of the Trombone'. International Trombone Association Journal Vol. XI no. 1, [January 1983], pp. 17-20. no. 2 [April 1983], p.35-38. no. 3 [July 1983], pp. 29-31 no. 4 [November 1983] pp.20-22. Vol. XII no. 1 [January 1984] pp.33-37, no. 2, [April 1984], pp. 32-38.

ARNOLD, Dennis. 'Brass Instruments in Italian Church Music of the Sixteenth and Early Seventeenth Centuries'. Brass Quarterly, Vol. I [December 1957], pp. 81-92.

BOWLES, Edmond. 'Tower Musicians in the Middle Ages'. Brass Quarterly no. 5, [1961/62], p.91.

BLANDFORD, W.F.H. 'Handel's Horn and Trombone Parts'. Musical Times no. 80 [December 1939], p. 794.

BRYAN, Paul. 'A Look at Some Eighteenth Century Source Material for the Trombone'. International Trombone Association Journal Vol. IV, [1976], pp .6-8.

COHEN, Albert. 'A Study of Instrumental Ensemble Practice in Seventeenth Century France'. The Galpin Society, Vol. XV, [March 1962], pp. 3-17.

DOWNS, Annelesse. 'The Tower Music of Seventeenth Century Stadtpfeifer: Johann Pezel's Hora Decima and Funffstimmigte Blasende Music'. Brass Quarterly, Vol. VII, [January 1931], pp. 319-329.

DURERKSEN, George. 'The Voice of the Trombone'. The Instrumentalist, Vol. XIV, [October 1964], pp. 98-101.

EHMANN, Wilhelm. 'New Brass Instruments Based on Old Models'. Brass Quarterly, Vol. I no. 4, [June 1958], pp. 214-225.

FETTER, David. 'Daniel Speer'. International Trombone Association Journal, Vol. VI, [1978], pp. 5-6.

FROMME, Arnold. 'Performance Technique on Brass Instruments During the Seventeenth Century'. Journal of Research in Music Education, Vol. XX no. 3, [Fall 1972], pp. 329-343.

-----, 'Evidence and Conjectures on Early Trombone Techniques'. International Trombone Association Journal, Vol. I, [1971/72], pp. 3-7.

GALPIN, Francis. 'The Sackbut, Its Evolution and History'. Proceedings of the Musical Association, London, [1906], pp. 1-25.

GLOVER, Steven. 'A List of Brass Dissertations, 1976/77'. International Trombone Association Newsletter, Vol. V no. 2 [December 1977], p. 5.

GUION, David. 'The Pitch of Baroque Trombones'. International Trombone Association Journal Vol. VIII, [1980], pp. 25-27.

HILL, John. 'Performance Practices of the Sixteenth and Seventeenth Centuries: A Few Practical References for the Trombonist'. International Trombone Association Journal Vol. IX, [1981], pp. 20-23.

HORSLEY, Imogene. 'Wind Techniques in the Sixteenth and Seventeenth Centuries'. Brass Quarterly, Vol. IV, [Winter 1960], pp. 49-63.

HAWES, Frank. 'Notes on Monteverdi's Orfeo'. Musical Times, Vol. LXV, [June 1924], pp. 509-511.

KENTON, Egon. 'The Brass Parts in Giovanni Gabrieli's Instrumental Ensemble Compositions'. Brass Quarterly, Vol. I no. 4, [December 1957], pp. 73-80.

LANE, George. 'Instrumental Manufacturers' Specifications'. International Trombone Association Journal Vol. III Part 1, [1975], pp. 12-15, Vol. IV Part 2, [1976], pp. 9-11, Vol. IV Part 3, [1976], pp. 9-11.

LANGWILL, L.E. 'London Wind Instrument Makers of the Seventeenth and Eighteenth Centuries'. Music Review, Vol. VII, [1946], pp. 88-102.

LEAMAN, Jerome. 'Trombone Choir of the Moravian Church'. International Trombone Association Journal Vol. V, [1977], pp. 44-49.

LEWIS, Maggie. 'The Sackbut, King of Instruments'. International Trombone Association Journal Vol. X no. 2, [April 1982], pp. 25-26.

MONTGOMERY, James. 'The Use of the Trombone by G.F. Handel'. International Trombone Association Journal Vol. XIII no. 3, [July 1985], pp. 32-34.

NETTL, Paul. 'Czechs in Eighteenth Century Music'. Music and Letters, Vol. XXI no. 4, [October 1940], pp. 362-370.

NICHOLSON, Joseph. 'Performance Considerations of Early Music for the Trombone With Other Instruments'. International Trombone Association Journal Vol. IV, [1976], pp. 20-21.

OTTO, Craig. 'A Checklist of Compositions With Significant Trombone Parts in the Liechtenstein Music Collection'. International Trombone Association Journal Vol. IX, [1981], pp.11-13.

PIERCE, Terry. 'The Trombone in the Eighteenth Century'. International Trombone Association Journal Vol. VII, [1980], pp. 6-9.

-----, 'Monteverdi's Use of Brass Instruments'. International Trombone Association Journal Vol. IX, [1981], pp. 4-8.

REYNOLDS, Jeffery. 'Moravian Trombone Choir Music'. International Trombone Association Newsletter Vol. VIII, no. 1, [September 1980], pp. 24-26.

-----, 'The 'Moravian Trombone Choir'. International Trombone Association Newsletter Vol. VIII, no. 2, [December 1980], pp. 24-25.

ROBERT, James. 'Works With Trombone in the Alfred Einstein Collection of Sixteenth and Seventeenth Century Instrumental Music: A Descriptive Catalogue'. International Trombone Association Journal Vol. VIII, [1980], pp. 25-32.

SCHAEFER, Jay. 'The Use of the Trombone in the Eighteenth Century'. The Instrumentalist, Vol. XXII, Part 1, [April 1968], pp. 51-53, Part 2, [May 1968], pp. 100-102, Part 3, [June 1968], pp. 61-65.

STREETER, Thomas. 'Survey and Annotated Bibliography on the Historical Development of the Trombone'. International Trombone Association Journal Vol. VIII, [1980], pp. 27-32.

STUART, David. 'Brass Research Projects'. International Trombone Association Journal Vol. X, no. 4, [January 1982], pp. 4-7.

TUCKER, Wallace. 'The Trombone Quartet: Its Appearance and Development Throughout History'. International Trombone Association Journal Vol. VII, Part 1 [1979], pp. 2-7, Volume VIII, Part 2, [1980], pp. 2-5.

WAGNER, Irvin. 'A New Original Seventeenth Century Solo: A Sonata for Trombone and Basso Continuo'. International Trombone Association Journal Vol. V, [1977], pp. 41-43.

WHEELER, Joseph. 'Review of the Trumpet and Trombone by Philip Bate', Galpin Society Journal, Vol. XX, [March 1967], pp. 106-117.

WESTRUP, Jack. 'Monteverdi and the Orchestra'. Music and Letters, Vol. XXI, no. 3, [July 1940], pp. 230-245.

UNPUBLISHED THESES

EVENSON, Pattee. 'A History of Brass Instruments, Their Usage, Music and Performance Practices in Ensembles during the Baroque Era'. [D.M.A. 1960, University of Southern California]

FETTER, David. 'Daniel Speer, Stadtpfeifer 1636-1707'. [M.A. 1969, American University, Washington D.C.]

KEEN, Alvin. 'Musical Aspects of the Moravian Church'. [M.A. 1935, University of Iowa]

LEWIS, Edgar. 'The Use of Wind Instruments in Seventeenth Century Music'. [Ph.D. 1964, University of Wisconsin-Madison]

MILLER, Frederick. 'A Comprehensive Performance Project in the Trombone Literature with an Essay on the Use of Trombone in the Music of Heinrich Schütz'. [D.M.A. 1974, University of Iowa]

NICHOLSON, Joseph. 'A Historical Background of the Trombone and its Music'. [D.M.A. 1967, University of Missouri-Kansas City]

OHL, John. 'The Orchestration of Bach's Vocal Works'. [Ph.D. 1941, Harvard University]

RUNNER, David. 'Music in the Moravian Community of Lititz'. [D.M.A. 1976, University of Rochester, Eastman School of Music]

STARKEY, Willard. 'The History and Practice of Ensemble Music for Lip-reed Instruments'. [Ph.D. 1954, State University of Iowa]