A CRITIQUE OF BAROQUE PERFORMANCE PRACTICE,
WITH SPECIFIC REFERENCE TO THE ORGAN
PRELUDES AND FUGUES OF JOHANN SEBASTIAN
BACH

By

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Submitted in partial fulfillment of the requirements for the
degree of Magister Musicae in the Faculty of Arts at the Nelson
Mandela Metropolitan University

January 2009

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DECLARATION:

In accordance with Rule G4.6.3, I hereby declare that the above-mentioned treatise is my own work and that it has not previously been submitted for assessment to another University or for another qualification.

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ACKNOWLEDGEMENTS

It is with much gratitude and appreciation that I acknowledge:

- The Lord, who in His great love and mercy granted me all the necessary strength to complete this treatise

- My supervisor, Professor Zelda Potgieter, for all her expert advice, guidance, and everything she did for me throughout my studies

- My family, friends and especially my wonderful parents, Annette and Noël Murphy and grandparents, Rosa and Willem Deysel, who never ceased to encourage me throughout my studies

- Mr. Colin Campbell, Mr. Antonio Lawack, and Professor Albert Troskie for their highly valued contributions towards this treatise.

- Madeleine Clare for her help during the research conducted for this study
DECLARATION OF ETHICS

I hereby declare that this research was conducted with due cognizance of the ethical considerations involved. To this end:

• Research subjects were informed of the aims and the objectives of this study
• Research subjects participated in this research on a voluntary basis
• Research subjects gave the researcher permission to use their responses in the writing of her treatise.

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This study aims to provide a critique of Baroque performance practice, with specific reference to the organ Preludes and Fugues of Johann Sebastian Bach. Drawing from the extensive body of literature pertaining to Bach’s keyboard music, a number of relevant issues are explored in so far as these may provide understanding of the manner in which the organ Preludes and Fugues should be performed today. These include:

- The notion of Bach’s ‘generic’ keyboard works. Were the generic keyboard works as a whole intended to be performed on more than one keyboard instrument? The instrumental designations given by Bach in these works are a valuable source of information in answering this question.

- The type of organ that was known to J.S. Bach and typical registration used in the Baroque, called the plenum.

- Identification of the grey area that persists in the interpretation of Bach’s organ works with regard to registration, tempo, rhythm, articulation, phrasing, fingering and ornamentation.

This study also engages with the current authenticity debate in musical performance as seen from the modernist and postmodernist points of view. The modernist ideal of authenticity is to “re-create” or “reconstruct” performances of Bach’s music with as much accuracy as the evidence of historical musicologists can provide. For the postmodernist, however, authenticity lies in embracing the human element of contingency in musical performance, along with a thorough grounding of such performance in historical evidence.
In aligning itself with the postmodernist point of view, this study ultimately argues that we cannot learn everything there is to know about Baroque performance practice from books. Instead, in addition to historical evidence, we draw much of our understanding in this regard from our innate or tacit levels of knowing. In this regard the scholar of Bach’s organ works can draw valuable lessons from the levels of tacit knowledge of leading organ pedagogues and performers on the subject of Baroque performance practice.

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**KEY WORDS**

Johann Sebastian Bach; Preludes and Fugues for Organ; Baroque Performance Practice.
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CHAPTER 1
INTRODUCTION TO THIS STUDY

1. AIM OF THIS STUDY
This treatise will aim to critique the notion of authenticity in Baroque performance practice as it pertains to the organ music written by Johann Sebastian Bach. Its focus will be on Bach's Preludes and Fugues for the organ in particular. It will align itself with the postmodern notion of authenticity in performance, one that embraces two things. Firstly, this notion acknowledges that it is important for the performer to be informed by the historical limitations of composer and composition, but, secondly, it also acknowledges the contingency of human involvement in musical performance in the here and now.

Towards this end, this treatise will begin by providing a historical context for the organ Preludes and Fugues of Bach by examining the circumstances under which they were composed, by interrogating the notion of the so-called “generic” keyboard works, and the types of instruments on which Bach would have conceived his organ works. It will also examine historical evidence pertaining to Baroque performance practices in registration, tempo, rhythm, articulation, phrasing, fingering and ornamentation, and will identify a certain grey area that may be said to exist in this regard, one, it will be argued, which cannot be answered by historical evidence alone.

In order to address the grey area in question, this treatise will conclude by examining the element of human contingency in musical performance. Polanyi’s idea of tacit knowledge will be adopted in order to theorise this element of contingency (Polanyi, 1983). In traditions of musical performance tacit knowledge accounts for that level of innate knowing not found in books on the subject, but passed on from teacher to student, or that we can learn from listening to the performances of others, comparing recordings by well-known organists, interviewing leading organ pedagogues, and by critically reflecting on our own performance.
2. **CONTEXT AND RATIONALE**

Much has already been written on the topic of Baroque performance practice pertaining to keyboard and organ music. Such sources include Badura-Skoda (1993), Bodky (1960), Ferguson (1987), Gleason (1996), Goode (1964), Schweitzer (1945) and Stauffer (1986).

Gleason (1996) provides a method that encompasses much more than just a focus on the Baroque; starting off by giving us a general description of the pipe organ (1996: 3-4). Other topics under discussion include organ stops and their function, as well as different classes of pipes found in an organ. With regards to registration, Gleason (1996:12-20) gives us an overview of various organ-playing traditions, also commenting on the registration of Bach’s organ works.

C.P.E. Bach and J.F. Agricola, stated in Bach’s obituary (1754) that Bach used to combine various stops “in the most skillfull manner” and displayed each stop “according to its character, in the greatest perfection.” Gleason (1996:14) states that, according to C.P.E. Bach, Forkel believed no one understood the art of registration better than Bach himself. Forkel also said that “many organ builders and organists were frightened when they saw him (Bach) pull the stops” but these people “were much surprised afterwards when they perceived that the organ sounded best just so.”

It is of the utmost importance that very special care be taken in selecting the appropriate stops in Bach’s organ music, as well as the works of all other composers on contemporary organs (Gleason, 1996:15). Goode (1964:114-115) gives some general suggestions on how to choose appropriate registration when performing Bach. The performer should always avoid extensive manual changes or any kind of registration alterations with variety being the prime objective. The addition or subtraction of stops must coincide in the most natural way, with the phrasing of the music. Terraced dynamics play an important role in some works and contrast is achieved by a change of volume and color involving a change of manuals.
The term *Organo Pleno*, translated as “full organ”, does not mean full organ in the sense that all the stops are employed. The term originally implied the full diapason chorus of the *Hauptwerk*. The use of stops such as orchestral oboe or flute, clarinet, voix celeste should be avoided, as well as the use of the crescendo pedal (Goode, 1964:114-115).

Badura-Skoda (1993) highlights various aspects pertaining to the keyboard music of J.S. Bach. The book is divided into two parts; the first part concerns itself with general problems of interpretation such as the following:

- Rhythm
- Tempo
- Articulation.

The second part of the book focuses on ornamentation used by Bach. In his discussion on rhythm, Badura-Skoda (1993) states that metre must in general be observed as being stricter than in works of other periods. The performer should keep the same tempo throughout the piece, not going faster or slower. The section on tempo discusses some of the tempo indications found in the works of Bach.

Badura-Skoda (1993:75) states that Quantz spoke of four classes into which Bach’s tempo marks could be divided:

- Allegro assai
- Allegretto
- Adagio
- Adagio assai.

All of these could be sub-divided. With regards to articulation, Badura-Skoda (1993:93) states that the unarticulated style of so many keyboard players (including organists) could be due to the fact that Bach hardly ever provided articulation marks, thus trusting in the player’s own knowledge of such matters.
According to Bodky (1960:201) very few articulation marks are found in Bach’s keyboard works. The dictum, “Let the lines speak for themselves”, has been used too often as an attempt to minimize the importance of this problem. However, articulation marks such as slurs and staccato’s do occur in Bach’s works for stringed and wind instruments (Bodky, 1960:204). Could the articulation marks in these compositions perhaps fill the gaps with regard to keyboard articulation?

I believe, furthermore, that there exists a grey area in the interpretation of Bach’s organ Preludes and Fugues that no historical sources thus far have properly clarified. Standard sources on the interpretation of early keyboard music, such as those mentioned above, all tend to focus more on the keyboard works that Bach wrote for the harpsichord, clavichord and fortepiano. Books like these discuss in particular the famous “48”, the interpretation of the Preludes and Fugues of the Well-Tempered Clavier I and II written for the clavier, with very little reference if any, to the interpretation of the organ Preludes and Fugues. They generally include a discussion of factors such as rhythm, tempo, fingering, articulation and dynamics. The organ is different to these keyboard instruments in terms of sound production, action and technique. For this reason I believe that greater clarity is required on the performance practice of J.S. Bach’s organ Preludes and Fugues. My reason for making this statement is due to my belief that it is not possible to derive a method of performance practice for Bach’s organ Preludes and Fugues from books on generic keyboard interpretation.

In light of the above, it seems that notation and historical evidence do not always clarify everything. In addition, we should consider that today we play on organs that are very different from the typical Baroque organ with regards to action and registration. We can’t possibly render an authentic performance of Bach’s organ works today, not even on the best Baroque style instruments. Furthermore, we should also ask ourselves why we should feel driven to want to recreate the past with as much accuracy as possible, and whether, in fact, this is actually possible, bearing in mind that the audiences of Bach’s day are not the audiences of today, and that Bach’s music can therefore never be heard or understood in exactly the same way it was more than 250 years ago. This, in
essence, is what literary critic Roland Barthes has referred to as the inevitable “death of the author” (Barthes, 1977: 30). For much of the twentieth century Baroque scholars have insisted that we recreate the music of Bach and others with as much historical accuracy as possible. For reasons such as the above, however, there has recently been an increasing tendency in musicology to accept that this modernist myth is untenable for two reasons:

- Too many factors remain unanswered by hisorical evidence
- The contingency of human involvement in performance is not accounted for.

Thus for Richard Taruskin, that which modernist musicology understands as authentic performances do not in actual fact represent “historical prototype” performances, nor do they represent a revival of older performance practices. Rather the term authentic in this context “embodies a whole wish list of modern(ist) values, validated in the academy and the marketplace alike by an eclectic, opportunistic reading of historical evidence” (Taruskin, 1995:5).

However, in acknowledging this much we should not assume that any attempt at historical authenticity in contemporary performance is a waste of time. The performer should never “throw out all evidence of historical performance practice” (Taruskin, 1995:5). Becoming acquainted with appropriate social, cultural and performance contexts means that the performer engage in so-called “performance-practice research”, defined by Taruskin as “an attempt, on the basis of documentary or statistical evidence, to bridge the gap between what is written … in musical texts… and what was actually heard in typical contemporary performances” (Taruskin, 1995:18). But this is not all that performers must do. Taruskin believes that true authenticity in performance practice does not lie in historical reconstructionism alone, but in embracing the contingency of music as process in the here and now. The notion of music as process requires that we put the practitioner of music – the performer and the pedagogue – at the center of musicological enquiry. Accordingly, in addition to our study of historical sources, we can learn a lot about appropriate Baroque performance practice from listening to the performances of others, listening to recordings of well-known organists,
and by interviewing leading organ pedagogues. In this manner we tap into valuable stores of what Polanyi has called “tacit knowing” (Polanyi, 1983). Tacit knowledge in the case of music performance and music education is an especially valuable resource because musicology has a long and deeply inscribed history of neglecting to theorise about musical performance and music education. With regards to this, Silverman reflects, “It is as if learning to perform has not been an acceptable academic subject” (Silverman, 1995:307). In the absence of fully developed academic traditions in this regard Woody believes that “by examining the experiences that most successful musicians have in common, teachers can learn how to help all their students build their musical abilities”, because “studying expert musicians is, in effect, studying what works” (Woody, 2004: 17-18).

3. RESEARCH DESIGN: THEORETICAL UNDERPINNING AND RESEARCH METHODS

The theoretical underpinning for this research is qualitative rather than quantitative in nature. In the qualitative paradigm, researchers “attempt always to study human action from the perspective of the social actors themselves [also referred to by anthropologists as the “emic perspective”]” (Babbie and Mouton, 2001:270).

Qualitative research is closely linked with the phenomenological or interpretivist tradition, in so far as:

- The research takes place within the natural surroundings of the “social actors”
- Its goal is to provide an understanding (Verstehen) rather than an explanation of people; thus placing emphasis on the insider’s perspective
- The interpretivist researcher views people as “conscious, self-directing, symbolic human beings” rather than regarding them as scientific objects
- The phenomenologist emphasizes the differences between the object of study in the natural sciences and the object of study in the social sciences (Babbie and Mouton, 2001: 28; 270).
Phenomenologists place emphasis on the fact that people are “engaged in the process of making sense of their (life) worlds” (Babbie and Mouton, 2001:28) in the sense that they constantly strive to “interpret, create, and give meaning to, define, justify and rationalize” their actions (Babbie and Mouton, 2001: 270). A metatheory that is related to phenomenology is hermeneutics; due to the fact that it also places emphasis on the “subjective understanding or interpretation (Verstehen) of human action” (Babbie and Mouton, 2001:30). For the qualitative researcher hermeneutics is important because, in the same way that we understand the meaning of any given text by interpreting it, “we should aim in a similar fashion, to interpret ideas, purposes, and other mental states expressed in the world of human action” (Babbie and Mouton, 2001:31). What this implies is that meaning should be explored in both a textual and a contextual sense. In the case of the Bach organ Preludes and Fugues, this means that we need to explore performance practice in two ways. First, we need to come to an understanding of texts such as the following:

- Bach as composer
- The musical texts or compositions
- Documented historical evidence or written texts that pertain to the organs, the organ works, and to performance traditions of Bach’s time.

Second, we need to engage with those contexts that will allow us to ‘fill in the gaps’ as far as the lack of historical evidence and the contingency of human involvement are concerned. These contexts may include:

- Traditions of organ pedagogy from Bach’s time until the present day
- Traditions of organ performance from Bach’s time until the present day
- Traditions of organ building from Bach’s time until the present day
- Traditions of Bach scholarship from Bach’s time until the present day
- Traditions of performance practice research from Bach’s time until the present day.

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1 See Boorman for more on the idea of “the composer as text”, Boorman 1999:403-423.
Two research methods will therefore be employed in this study. First, existing texts will be interpreted by means of a critical analysis of sources. Second, an attempt will be made to fill in the gaps as far as the lack of historical evidence and the contingency of human involvement are concerned by the following means:

- I shall provide an analysis of the performances of Bach’s organ works as presented by two leading contemporary organists: Marie-Claire Alain’s interpretation of the Prelude and Fugue in A Minor, BWV 543, and Barry Jordan’s interpretation of the Toccata and Fugue in D Minor, BWV 538.
- I shall distribute a questionnaire to three well-known South African organists and pedagogues: Albert Troskie, Colin Campbell and Antonio Lawack. This questionnaire (see attached Appendix A at the end of this treatise) contains open-ended questions, designed to elicit their responses to questions of Baroque organ performance practice regarding many of the grey areas identified in the literature, especially as these pertain to registration, tempo, rhythm, fingering, articulation, phrasing and ornamentation.

4. DELIMITATIONS OF THIS STUDY AND OUTLAY OF CHAPTERS

This study is about critically analyzing both what has been written on Baroque performance practice as well as what is currently practiced by highly regarded performers and pedagogues, with regards to the organ Preludes and Fugues of J.S. Bach. In so doing its aim is to derive a method of organ playing that teachers may use to teach the organ Preludes and Fugues of Bach to their students, one that is based in historical accuracy but that also acknowledges the reception history of these works and the manner in which leading practitioners of today approach their performance.

This study is not about testing the truths of what has been written on Baroque performance practice. In the qualitative paradigm the question of truth based on empirical evidence or scientific experiment is an irrelevant one. Rather it is research done to learn from all of the above sources, to provide an “emic perspective” from the point of view of all the musicians and musicologists – both past and present – who
collectively perform their role as “social actors” in shaping our present understanding of performance practice in the case of Bach’s organ Preludes and Fugues (Babbie and Mouton, 2001: 270).

Following this introductory chapter, the treatise will be set out as follows. In the forthcoming chapter I shall provide an overview of the life of J.S Bach, the works he composed for organ, and the type of instrument for which these works were written. In the third chapter I shall discuss performance practice and interpretation as seen by various authors, as these pertain to the organ Preludes and Fugues. Here I also identify a number of grey areas, where documented historical evidence does not appear to provide the performer and teacher with clear-cut answers. In order to address these grey areas, the fourth chapter of this treatise interrogates the notion of authenticity, ultimately arguing for our adoption of the more inclusive postmodern understanding of this concept. This is followed by a chapter wherein I engage with the extent to which answers are provided in the tacit knowledge of leading practitioners – performers and pedagogues – in the field. Finally, in chapter six I draw conclusions arrived at from the knowledge gathered in the previous five chapters.
CHAPTER 2
J.S. BACH: HIS LIFE, ORGANS AND ORGAN MUSIC

In this chapter I give a historical overview of the life of Johann Sebastian Bach and discuss the context in which we see his generic keyboard works; could they have been intended to be performed on more than one keyboard instrument? I also include the organ of Bach’s time and how knowledge of this instrument can enable the performer of today to assure a historically informed performance of his works.

1. AN OVERVIEW OF THE LIFE OF JOHANN SEBASTIAN BACH

Johann Sebastian Bach was born on 21 March 1685 at Eisenach, a town in the region of Thuringia, Germany. Bach received his first lessons in music from his father Ambrosius Bach, who taught him the violin as well as the viola. At the age of ten, Bach was left an orphan when first his mother and, not long afterwards, his father died (Meynell, 1934:15). Young Bach and another one of his brothers, Johann Jacob, went to live with his elder brother Johann Christoph, an organist in Ohrdruf (Meynell, 1934:15). Both Johann Sebastian and his brother Jacob were sent to the Lyceum. Bach finished his education there at the age of 15 (Emery, 1983:46). Johann Christoph taught Bach to play the clavier and, according to Meynell (1934:16), confined his younger brother to simple pieces he considered suitable to the latter’s age. Several authors have written about how Johann Christoph apparently possessed a certain manuscript containing the keyboard works of well-known composers of the day, and how he would not allow his younger brother to study these works. Johann Sebastian found a way to secretly smuggle the manuscript out of the latter’s cupboard, and he made a copy for himself at night by moonlight. This task took him six months to complete, only to be confiscated from him by Johann Christoph when he discovered how disobedient Johann Sebastian had been.
According to Emery (1983:47) it is assumed that Johann Christoph died in 1700, after which Johann Sebastian found the manuscript that his elder brother had taken from him. However, it has been discovered that Johann Christoph lived until 1721 and that he and Bach had been on good terms with each other (Emery, 1983:47). In 1700-1702 Bach, who had a good soprano voice, joined the Mettenchor (Matins choir) at the Michealisschule in Lüneburg. However, his voice broke soon afterwards and for eight days he could speak and sing in octaves. Afterwards, it is not certain if he continued to sing, but there’s no doubt that he acted as an accompanist or a string player (Emery, 1983:49). The organist Georg Böhm had a profound influence on Bach during this time and, according to Emery (1983:50) Carl Phillip Emanuel Bach stated in writing that his father had been taught by Böhm. Another organist who had a great influence on Bach was Adam Reinken. In 1702 Johann Sebastian traveled on foot to Hamburg to hear the great Reinken play the organ. Bach did not only listen to organists during this time, but occasionally he also went to Celle. Here he became familiar with the rich ornamented French music of the 17th century, which he heard at the Court of Duke George Wilhelm. In 1703 Bach was employed as a violinist at the Court of the Duke of Weimar. Hadden (1929:37) states that Bach “had never taken very kindly to the violin”, because the organ was his favourite instrument, and a year later Bach was appointed organist of the Bonifaciuskirche (New Church) in Arnstadt (Emery, 1983:53). The organ at the Bonifaciuskirche was a newly built organ and Bach had been requested to examine the instrument, write a report on it, and to inaugurate the new organ in a public recital to be held the Sunday after the examination of the organ had been completed.

Johann Sebastian took as his models the organists Bruhns, Reincken, Buxtehude (all Northerners) as well as some fine French organists (Emery, 1983:53). At the Bonifaciuskirche Bach had some trouble in getting along with the boys from the gymnasium choir as well as with the church authorities, who were dissatisfied with Bach’s habit of elaborating on the accompaniments to the chorales; their reason was that they thought Bach confused the congregation (Hadden, 1929:38; Emery, 1983:55). While Bach was at Arnstadt he got leave to go and listen to Buxtehude’s performance of his “Abendmusik” in Lübeck. Bach stayed away for four months and this got him into
serious trouble with the Arnstadt church authorities. They demanded to know why he had overstayed his leave, while Bach defended himself, arguing that he honestly did not think the church authorities would mind, as his cousin was filling in for him and was doing a really good job. The church authorities also complained that Bach gave up the performance of figural music, and that he had bad relations with the students of the gymnasium choir. According to Meynell (1934: 30) Johann Sebastian had repeated his request that the Church should appoint a *Director Musices* to train the choir which had been refused on an earlier occasion. On one occasion the church authorities complained that Bach had allowed a “stranger maiden” in the organ gallery and that they heard her singing there while Johann Sebastian was practicing. The so-called “stranger maiden” was Maria Barbara Bach, a cousin of Johann Sebastian, and his future wife.

The attitude of the church authorities made Bach very unhappy, and other circumstances caused him to move to Mühlhausen, where the organist had died. In 1707 Bach was appointed organist at the church of St. Blasius and married his cousin Maria Barbara Bach on 17 October 1707 at Dornheim, a village that was close to Arnstadt. According to Emery (1983:58) Bach is said to have encouraged music that was “well-regulated church music, not only in his own church, but also in the surrounding villages where the harmony was often better-fashioned”. Bach had more trouble at Mühlhausen and he did not remain there for long. There were difficulties of a religious nature that existed between orthodox Lutherans and those who were Pietists, and this made Bach feel uneasy, interfering with his desire to serve God with his music. The Pietists saw the existence and growth of most of the art forms as being unnecessary and even as being detrimental to the human soul. Partly because of the Pietists and partly because his salary at Mühlhausen was not enough for him and his wife to live on, Bach asked to be dismissed from Mühlhausen and moved to Weimar in 1708, where he was appointed at the Court of Duke Wilhelm Ernst. In his new post at Weimar Bach had nothing to do with a choir, because his duties were to act as court organist and chamber musician. Spitta (1951:381) states that Bach's role in the Court orchestra was to play the pianoforte as well as violin, so that he was afterwards
promoted to being *Konzertmeister* (the leader of the orchestra). There were twenty-two musicians employed at the court, including singers. Most of the instrumentalists were expected to be able to perform on at least two instruments and some of them had knowledge of several instruments.

Aside from his interest and participation in chamber music during this period, it is Bach’s Weimar organ works that stand out, and that have the greatest relevance to this study. For Meynell (1934:44), Bach’s works from the Weimar period, in particular the organ works, are in a class of their own. This may be due to the organ that Bach had at his disposal in the chapel church of the Court at Weimar. The organ was not a large instrument, but Schweitzer (1945:104-105) states that the organ must have had a very fine tone according to its specification: it had two manuals and a good full-toned pedal, and Williams (1980:124-125) gives the following stop list:

**Upper Manual**
- Principal 8’
- Quintadena 16’
- Gemshorn 8’
- Grobgedackt 8’
- Quintadena 4’
- Octava 4’
- Mixture VI
- Cymbel III
- Glocken Spiel

**Lower Manual**
- Principal 8’
- Viol di Gamba 8’
- Gedackt 8’
- Trompete 8’
- Klein Gedackt 4’
- Octava 4’
Waldflöte 2’
Sesquiltera IV

**Pedal**
Gross Untersatz 32’
Sub-Bass 16’
Posaun Bass 16’
Violon Bass 16’
Principal Bass 8’
Trompete Bass 8’
Cornett Bass 4’

The Castle chapel had received the name, *Weg zur Himmelsburg* (*The Way To The Heavenly City*). Sumner (1961:14) states that the Castle chapel was decorated with a blue sky and with white angels ascending towards the organ which stood in the top gallery, giving it a celestial appearance. There is a very strong possibility that the situation of the organ and the visual biblical symbolism of the Chapel were both reflected in Bach’s organ works from the Weimar period. It is believed that the greater part of his compositions for the organ date from his Weimar period. Bach had already been a master of the organ when he went to Weimar at the age of twenty three (Grew, 1947:60). Meynell (1934:46) describes Bach’s Preludes from the Weimar period as developing “only a single thought”, and the Fugue themes as being “simple, concise, unornamented, almost austere.” Well-known organ works from the Weimär period include the following:

- Prelude and Fugue in D Major BWV 532
- Prelude and Fugue in C Major BWV 545
- Prelude and Fugue in E minor BWV 548
- Prelude and Fugue in A minor BWV 543
- Prelude and Fugue in G Major BWV 541
- Toccata and Fugue in D minor BWV 565
- The “Little” Prelude and Fugue in E minor BWV 533
• Canzona in D minor BWV 588
• Passacaglia in C minor BWV 582

Towards the end of the Weimar period, Bach wrote the *Orgelbüchlein* BWV 599-644, a real treasure of organ music, given this very humble title by Bach himself: “A Little Book for the Organ, wherein the Beginner may learn to perform Chorales of every Kind and also acquire skill in the Use of the Pedal, which is treated uniformly obligato throughout. To God alone the praise be given For what’s herein to man’s use written” (Meynell, 1934:47).

After he had left Weimar, Bach wrote little music for the organ. Later works that stand out include the G minor Fantasia and Fugue BWV 542. In his last years he wrote great music on chorales and even greater music on free themes. Examples of these works include the arrangement of *Vater unser* BWV 682 and the Prelude and Fugue in B minor BWV 544.

Bach was in great demand as the rumours of his wonderful organ playing spread amongst his countrymen, where he tested new organs, examined new organists and gave recitals. It may be assumed that Bach was a humble person, in the light of the following statement he once made when being praised on his superb playing: “There is nothing very wonderful about it; you have only to hit the right notes at the right moment, and the instrument does the rest” (Meynell, 1934:51).

In 1713 the *Liebfrauenkirche* in Halle was in need of an organist to play upon its very fine and newly built organ which had 63 speaking stops. Bach had travelled to Halle and played on the organ, making such an impression on the citizens that they sent him a “Vocation” to Weimar stating how much they wanted him to take up the position of organist at the *Liebfrauenkirche* (Meynell, 1934:52). Bach was very tempted to accept this post, not because of the salary, but because of the fine organ he would have at his disposal. But he had to consider this opportunity very carefully, as he was in the employ of a patron who would not grant dismissal from his service easily and the requirements
of the post at Halle would have to be modified to suit Bach’s needs. During this time Duke Wilhelm Ernst made Bach his Konzertmeister and this caused the Halle church authorities to accuse Bach of using the possibility of accepting the post of organist at the Liebfrauenkirche to his advantage in order to be advanced by the Duke to the position of Konzertmeister (Meynell, 1934:52). This was not true, because Bach had acted with caution as he always did and considering what would be best for him and for his growing family.

According to Schweitzer (1945:105), from the time that Bach had been promoted to Konzertmeister, he had to provide cantatas for the church service. At the time the Kapellmeister of the Duke was a certain Johann Samuel Drese, who was already advanced in his years; his son Johann Wilhelm acted as his father’s deputy, but apparently was a musician of little account (Schweitzer, 1945:106). In 1716 a new Kapellmeister had to be chosen when Drese passed away. The Duke wanted to offer the post to Telemann, who was in Frankfort during that time, but did not accept the offer. Bach was passed over for this position, and it was given to Drese’s son instead. According to Meynell (1934:60) the Duke’s unfair treatment of Bach in this matter was not the only reason for his decision to leave Weimar. The Duke had a nephew, Duke Johann Ernst August, with whom he had a very bad relationship and that he had forbidden any members of his Court to even talk to. Bach unfortunately got involved in this family feud, because he found the young Duke to be a very pleasant person as well as being very musical. It was through his friendship with Duke Ernst August that Bach met his new patron, Prince Leopold of Anhalt-Cöthen. Prince Leopold was also very musical and as soon as he met Bach, he wanted the latter to become his Kappelmeister. Bach asked for his dismissal from Weimar, which had the most unpleasant consequences, because Duke Wilhelm Ernst was a patron who did not easily grant the dismissal of his servants (Meynell, 1934:61). According to Grew (1947:73) the more the Duke refused Bach’s dismissal, the more the latter demanded to have his dismissal granted. The Duke had Bach summoned before him in his hall of justice and arrested him because Bach refused to withdraw his request for dismissal. However, this “imprisonment” does not mean that Bach was physically locked up in a
cold and damp prison cell, but instead he was placed under house arrest, and all his duties in the church and castle were suspended. During the month that he was under house arrest, Bach put his time to good use. According to Meynell (1934:61) Bach started to plan the *Orgelbūchlein* during this time, partly writing it as well. The *Orgelbūchlein* contained ninety two sheets, bound in paper boards with leather back and corners. It had been Bach’s intention to write 164 Chorale Preludes for the organ, but he only completed 46 and on the blank pages were only the names of the compositions he intended to write.

Weimar was the last place where Bach would officially be employed as an organist. Never after Weimar was he to hold the post of organist again. Instead his next position was to be that of *Kappelmeister* and composer of chamber music (Meynell, 1934:62). By the Christmas of 1717, Bach and his family were settled in Cōthen. Hendrie (1974:94) states that Bach’s Cōthen years were some of his happiest. It is said that Bach thought he might stay in Cōthen for the rest of his life, in almost ideal surroundings (Meynell, 1934:63). Prince Leopold was friendly and had a real love for music; he had a fine bass voice and played the violin, viola da gamba and the clavier (Grew, 1947:75). The town did not have an organ that was of any importance. In the court there was a small organ, with an unusual high F-sharp on the pedal. There are organ works that date from this period wherein Bach includes pedal notes higher than E. The court orchestra consisted of 18 members, of whom 8 were called ‘chamber musicians’, three others were simply referred to as musicians, two were trumpeters, one was a drum player, and one an unspecified member of the orchestra. Bach was the director. Two copyists made up the total number of orchestra members. This orchestra was referred to as the *Collegium Musicum*, the musical college (Grew, 1947:76). According to Meynell (1934:63) Bach had a good salary and position at Cōthen and the court orchestra was well equipped with excellent instruments. It was for these instruments that Bach wrote the *Brandenburg Concertos*, being described as “his earliest essays in absolute instrumental music on the grand scale. They are a remarkable expression of his fertile and adventurous mind” (Meynell 1934: 66). During Bach’s tenure at Cōthen, he also wrote brilliant music for the keyboard, which he no doubt performed himself.
Such works include the following: the Chromatic Fantasia and Fugue, the Fantasia and Fugue in A Minor as well as the Toccatas in C and A Minor. Here at Cöthen, Bach wrote the first volume of his “Well-tempered Clavier”, the second volume not being compiled as such until twenty two years later in Leipzig.

By all accounts Prince Leopold, unlike Duke Wilhelm Ernst, allowed Bach a great amount of freedom to enable him to journey to various places, provided that these music travels did not interfere with his official duties (Grew, 1947:77). Bach was thus hardly settled in Cöthen when he was requested to come to Leipzig and examine the splendid new organ of the university church, St. Paul. During this visit to Leipzig, Bach met again with Johann Kuhnau, then the cantor at the Thomasschulle where Bach was to take up the cantorship in 1722. In 1718, Prince Leopold traveled to Carlsbad for about five weeks, taking with him Bach and a few selected orchestra members. On his return to Cöthen, Bach suffered one of the heaviest losses of his life. His wife, Maria Barbara, was dead after an apparently short illness, and was already buried. The death of his wife greatly unsettled Bach and even had him thinking of returning to the service of the church (Emery, 1983:72-73).

On 3 December 1721, Bach married Anna Magdalena Wilcken. She came from a musical family, and was a court singer with a beautiful soprano voice. The year after their marriage, Bach made a music book for her, the Clavier Büchlein vor Anna Magdalena Bach. Another book followed this one in 1725, with her initials stamped in gold on the cover. This book contained various types of music, written out by them both. Anna Magdalena assisted Bach in his copying out of cantatas as well as music written by other composers that he wanted to possess. It is said that her writing was so closely modeled on that of her great husband, that some of the experts struggled to tell their handwriting apart (Meynell, 1934:70-71).

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1 Not all of the works from the second volume are thought to date from the Leipzig period, however. Many of the works from volume 2 are thought to be early works, or arrangements of early works.
The beginning of the end for Bach at Cöthen came when Prince Leopold married his cousin, Princess Frederica Henrietta of Anhalt-Berneburg. The new princess did not share her husband’s love for music. Bach called her an “amusa”, meaning that she opposed the muses (arts) in the same manner that the atheist opposes God (Grew, 1947:83). The new princess’s attitude towards music was not the only reason that Bach had to consider seeking his fortune elsewhere. Meynell (1934:73) states that his work as Kappelmeister at Cöthen had changed the course of the path that Bach wanted to follow, namely, dedicating his music to the service of the church. Furthermore, the court's organ was too small to inspire Bach to write and perform such glorious organ works as he had written at Weimar (his so-called golden era in organ composition). Bach “felt the organ calling him”. Shortly after his first wife’s death, Bach had journeyed to Hamburg once again and played on the magnificent four-manual organ of the Catharinenkirche, where the very aged and famous Adam Reinken was still the organist. Bach played here to Reinken for more than two hours and improvised for almost half an hour on the chorale, *An Wasserflüssen Babylon* BWV 653 (By the waters of Babylon). At the end of this improvisation, Reinken came to Bach and told him that he thought the art of improvising in such a way had perished, but he saw it still lived on in Bach. Bach was deeply moved by these words from the great Reinken who he admired so much.

During this time another organist post went vacant at the Jacobikirche in Hamburg, which also possessed a fine four-manual organ. Bach wanted to apply for this post and was told that he did not have to submit to the formal examination like the other candidates. However, during this time Bach was still employed by Prince Leopold and told the Jacobikirche authorities that he would write to them from Cöthen, informing them whether he would be able to take up the post. It is not sure what happened to this letter Bach was supposed to have sent them, as a far less competent organist was chosen to fill the vacant post. This person made a handsome contribution of 4000 marks to the church funds, and it was later said by Mattheson that “he could prelude with thalers better than he could with his fingers” (Meynell, 1934:74-75).
But it was not at Hamburg that Bach was to stay for the rest of his life, nor was it Cöthen. After the marriage of Prince Leopold, the Court at Cöthen slowly underwent changes. Grew (1947:83) states that the music at the court became more and more neglected. The new princess demanded all her husband’s attention, and he gave her all. The new princess was possibly a little jealous of Prince Leopold’s friendship with his Kappelmeister and probably bored by music which she had no understanding of (Meynell, 1934:75). Bach had decided that it was time for a change and a year and a half after he had married Anna Magdalena, the Bach’s moved to Leipzig where Bach was appointed cantor at the Thomasschule.

The circumstances around Bach’s move to Leipzig started with the death of Kuhnau, the former cantor of the Thomasschule (Emery, 1983:79). Six candidates applied for the post; among them were Telemann (who was still remembered for the good work he had done at Leipzig twenty years earlier and had also been doing in Hamburg at that time) and Graupner. Unfortunately, the cantor’s duties were not restricted to the teaching of music alone; it also included the teaching of Latin to the boys of the Thomasschule. Although Telemann refused to teach Latin, he was still appointed. The Hamburg authorities refused to grant his dismissal and even offered to increase his salary. The end of this was that the council decided the school was in need of a cantor who would teach subjects other than music, and of the five remaining candidates, three got an invitation to come and give a trial performance, and two dropped out. Bach performed his pieces for the trial performance (the Cantatas nos. 22 and 23) and was subsequently appointed the new cantor of the Thomasschule. Bach was told that he would have to teach subjects other than music, such as Latin and Grammar. He had to promise the authorities that his life would be ‘sober and secluded’, that he would be a good example to the boys of the school. He also had to show the necessary respect to the council, and his music should be ¹”nicht theatralisch” (Meynell, 1934:78).

¹ By this the council meant that Bach’s music should not be theatrical.
Wolff (1983:83) speculates that Bach felt it a step downward to become a mere cantor after being a *Kappelmeister* and that he apparently had little respect for his employers. The council saw Bach as a third-rate musician (some of them still thought of Telemann as being superior to Bach) who would not “treat them with the respect in which their souls delighted” (Meynell, 1934:95.) Bach’s working conditions in Leipzig were far from ideal. The *Thomasschule* was in a state of decline at the time that Bach became the cantor. The school did not have a very good reputation and there was a decrease in the number of scholars. The school buildings did not provide adequate accommodation for the scholars, and were overcrowded and dirty, causing ill health among the scholars.

There were four churches in Leipzig: the two principal churches, the *Thomaskirche* and the *Nicolaikirche*, and the less important *Peterskirche* and the *Neuekirche*. It was the duty of the boys from the *Thomasschule* to provide the music in these churches every Sunday. However, these boys were very undisciplined. Meynell (1934:85) states that the Rector, Conrector, Cantor, ecclesiastical authorities as well as the Leipzig Town Council seemed to be in disagreement over one matter or the other almost constantly. One can only wonder how Bach wrote the wonderful music he did under such stressful circumstances. However, Schweitzer (1945: 114) states that “we cannot say that Bach suffered from all this tension”, because the disputes between the authorities “ministered to his need for independence”; he apparently played the consistory and the council off against each other and in the meantime “did what he liked”.

Bach’s duties at the *Thomasschule* included teaching singing to the boys from the upper classes, pure scholastic duties like the teaching of Latin to the third class, and supervising in the school during certain hours of the day. However, Bach later paid his colleague Master Petzold to teach the Latin class. The singing classes took place on the first three days of the week and on Saturday afternoons the rehearsals for the cantatas took place (Schweitzer, 1945: 114). Bach’s principal duties were the supervision of the four choirs for the churches, and he had to train the two principal choirs, where, according to tradition, the boys “promenaded” singing through the streets at certain times during the year. The singing in the streets took place irrespective of bad weather
and the result of this was that the voices of the young scholars were ruined before they had received proper training, leaving Bach with hoarse and imperfect voices which could not be used to sing the solo’s in his cantatas. Bach also had to accompany these processions and maintain order and good behavior among the scholars. Sometimes these choirs also sang at weddings and at funerals.

Bach wrote many of his cantatas while in Leipzig. In fact, one of his chief tasks was to write sacred cantatas to be performed every Sunday (except for the last three Sundays in Advent and in Lent) and on feast days, of which there were many: the three Feasts of the Virgin, the New Year, Epiphany, Ascension, the Feast of St. John, Michealmas and the Reformed Feast (Wolff, 1983:129; Schweitzer, 1945:126). In total Bach composed 59 cantatas every year. Schweitzer (1945:126) states that if Bach had really written five complete yearly cycles of cantatas, as the obituary states, the cantatas number 295 in total, of which 100 must be regarded as lost works because we are left with only 190 cantatas.

There are many different forms in Bach’s cantatas. Three of his favourite forms were the following:

- Biblical text – recitative – aria – recitative - aria - chorale (found in cantatas nos.46,105,136)
- Biblical text – recitative – chorale – aria – recitative – aria – chorale (nos. 40, 48, 64)

The Leipzig cantatas are characterized as a whole by one constant feature: the framework that consists of an introductory chorale movement written in the grand style (solo pieces are not a common feature at the start of the cantatas) and with closing four-part chorales, which are described as being simple though expressive (Wolff, 1983:129). Bach did not only compose cantatas in connection with the church year, but he also wrote sacred cantatas to be performed at other occasions, such as changes of town council, weddings, funerals, the celebrations of the Confession of Augsburg (1730).
as well as the inaugurations of various organs. During his early years at Leipzig, Bach not only wrote sacred cantatas but also occasionally secular cantatas for various occasions, including university ceremonies (Wolff, 1983:131-133).

Although we can roughly classify the Weimar and pre-Weimar periods as producing most of Bach’s organ music, we must keep in mind that his keyboard output (including both the organ and the harpsichord) covers the whole of his life. Schweitzer (1945:267) states that the Bach organ preludes and fugues can be grouped into 4 distinct chronological groups, namely: (1) the works where the influence of contemporary masters such as Buxtehude can be seen very clearly, (2) the works where Bach’s own brilliance, free from influence of others, becomes clear, (3) the brilliant compositions of the Weimar period and (4) the gigantic organ works of his final period. While in Cöthen, Bach wrote only occasionally for the organ, but from about 1735 in Leipzig, he wrote some of his most brilliant organ music ever, which was his latest and most mature period (Schweitzer,1945:266-267). In addition to the trio sonatas, his brilliant adaptation of chamber music, the 3 Preludes and Fugues in C major BWV 531, E minor BWV 548 and B minor BWV 544 are some of the greatest organ works Bach wrote in Leipzig. There is also a fourth brilliant organ work that Bach composed at Leipzig, namely the Prelude and Triple Fugue in E flat major BWV 552. This particular work expresses the principals and ideas of the great chorales that Bach wrote in 1739 and also the third part of the Klavierübung. In Bach’s organ works written during this period, apart from the preludes and fugues in C major, there is a return to Buxtehude’s style. Bach constructed these works on a single idea (like the organ works of his middle period) but they are based on the opposition of different themes. However, these works are very different in character than the dramatic and restless works of Buxtehude and Frescobaldi (Schweitzer, 1945:276). The brilliance of the organ music written in Bach’s late period must be seen in the light of his activities as a concert organist.

For Wolff (1983:146) the Passacaglia in C minor, BWV 582, is probably the most important work of Bach’s Leipzig period. A very interesting fact about the Passacaglia was noted by Schweitzer (1945:280), namely, that the work was originally written for the
pedal harpsichord. Bach later arranged this work for the organ. Registration of the *Passacaglia* must be handled with the utmost care. Each of its twenty variations, which are based on a repeated theme in the bass, needs to have the tone-colour characteristic to that variation. The *Passacaglia* was written under the influence of Buxtehude whose organ works in this musical style are significant. Another feature of Buxtehude’s influence on Bach is the pairing of the *passacaglia* with a fugue. Buxtehude would place his fugues at the beginning of a *Passacaglia*, Bach placed the fugue at the end of the work where it would function as a musical climax (Schweitzer, 1945:280-281).

Bach continued to write great works for the organ and even at the very end of his life, we find works such as the *Schübler* chorales (arranged from solo movements found in the cantatas) and the canonic variation on the chorale *Vom Himmel hoch BWV 769* (Wolff, 1983:148). Bach’s failing eyesight towards the end of his life caused him to undergo an eye operation performed by a traveling English oculist (Meynell, 1934:127). The operation was a failure and Bach was blind afterwards. At the very end, Bach’s son-in-law, Altnikol, wrote down the sixteenth and seventeenth Chorale Preludes, *Jesus Christus unser Heiland* and *Kommen Gott*, while Bach dictated to him. The eighteenth prelude was an organ prelude Bach had written on the hymn tune *Wenn wir in höchsten Nöthen seien* (When we are in deepest need). There came another hymn tune to his mind, and he asked Altnikol to use the following words:

*Before Thy Throne, my God I stand,*

*Myself, my all, are in Thy hand;*

*Turn to me Thine approving face,*

*Nor from me now withhold Thy grace.*

The score in Altnikol’s handwriting ends suddenly in the middle of bar 26. The great Johann Sebastian Bach was to compose no more. Bach lived a little while longer, and ten days before his death he suddenly regained his eyesight before he went into unconsciousness. He died on the evening of Tuesday the 28th of July 1750. He was buried in the churchyard of the *Johanniskirche*. There was no monument raised in his memory (Meynell, 1934:127-128).
2. THE BACH REVIVAL

After Bach’s death, he sank into virtual oblivion. In the Thomaskirche in Leipzig, his music was practically put aside by those who succeeded him as cantor. Only occasionally would one of his motets or cantatas be performed. The organ works were almost never played except if one of Bach’s sons or one of his pupils performed it. But Bach’s son Carl Phillip Emanuel propagated his father’s music in Berlin where he was employed until 1767, and it was also at Berlin where musicians influenced by Emanuel made it their duty to preserve and to pass on the original manuscripts of Bach’s works that have survived (Temperley, 1983:169).

Grew (1947:191) explains how Austrian diplomat, Baron van Swieten, first became acquainted with the music of Bach. The Baron took this music with him to Vienna, where he held meetings at his house in the 1780’s and had the music of Bach and others such as Handel performed. It was at these musical gatherings that Mozart became familiar with Bach’s music (David and Mendel, 1966:381). Beethoven became acquainted with the music of Bach through his teacher, Christian Gottlob Neefe, who gave him Bach’s ‘Well-Tempered Clavier’\(^1\) to study, and Beethoven, then a boy of 11 or 12, mastered the entire ‘48’ to his teacher’s delight. Other teachers who taught Bach’s ‘48’ to their pupils include Carl Friedrich Zelter. The latter also introduced his friend Goethe to the music of Bach. Goethe carried the Bach tradition over to one of his latest pupils, Felix Mendelssohn, who is credited with having started the great Bach revival of the 19\(^{\text{th}}\) century (Grew, 1947:191).

In England the revival of Bach’s music progressed slower than in Germany and Austria, because England did not have the group of pupils and descendants of Bach who started the revival in Germany. There is evidence, however, that a subsequent part of Bach’s

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\(^1\) The Well-Tempered Clavier, two volumes of 24 Preludes and Fugues each, hereafter referred to as WTC I and WTC II.
music was circulating in a manuscript in England between 1770 and 1800. Johann Christian Bach, the so-called “London Bach”, might have possessed some of his father’s manuscripts. Other people who had some of Bach’s music in their possession were Burney, who had received a copy of WTC I from Emanuel Bach in 1772, Clementi, who possessed a partly autographed copy of WTC II, and Queen Charlotte, who owned a manuscript volume dated 1788, containing WTC I and II, the Clavier–Ubüng III and the Credo from the Mass in B minor. The queen could have got hold of these manuscripts through K. F. Horn, her music teacher from 1782, or from A.F.C Kollmann, the organist at the German Chapel in St. James Court from 1784. Horn and Kollmann, together with Clementi, are said to be the most important figures of the English Bach Revival (Temperley, 1983:173).

Another English Bach disciple was Benjamin Jacob and, together with Horn, he published the six trio sonatas for organ in 1809 -10, as well as a new edition of WTC I and II in 1810 -13. Mendelssohn visited England in 1829 and 1832 to perform the organ music of Bach at St. Paul’s Cathedral. The Bach Revival in England reached a peak with the formation of the Bach Society, founded by Sterndale Bennett. At the very first meeting held at Bennett’s house, the aims and objectives of the Bach Society were formulated; it included the collection and promotion, but not the publication, of Bach’s works. The Bach Society gave a number of concerts and the St. Matthew Passion was performed for the first time with an English text, with Bennett as the conductor. Various other works of Bach were revived by the Bach Society before the society disbanded in 1870 (Temperley, 1983:176).

3. THE ‘GENERIC’ KEYBOARD WORKS OF J.S. BACH

Is it possible that the keyboard works of J.S. Bach can be performed on more than one keyboard instrument? In the next few pages I am going to discuss the interpretation of some of the indications with reference to instrumentation that we find in the headings of autographs and original prints of Bach’s keyboard music. These headings will include
Organo, Organo con/cum pedal (e), Organo pedaliter, Cembalo, Clavessin, “a 2 Clav. e (t) Ped (al), Pedaliter and Manualiter.

The various keyboard instruments of the Baroque era (including the organ) largely shared a common repertoire. Most of what have been written about early keyboard music refers to this standard practice (Marshall, 1986:212). In the first chapter of his book ‘The History Of Keyboard Music To 1700’, Willy Apel (1967:3) states that the word ‘keyboard’ is used alongside the all-inclusive term ‘clavier’, which before 1700 applied to all keyboard instruments. According to Marshall (1986:212) musicians and scholars have always doubted this information with reference to the keyboard music of J.S. Bach. This can be ascribed to the fact that from the beginning of the 19th century until recent times the serious editions of Bach’s works, including the Bach-Gesellschaft and the Bach-Ausgabe, proceeded on the unstated assumption that Bach’s keyboard repertoire falls into two distinct categories, namely (1) works composed for the organ and (2) works composed for the stringed keyboard instruments, the harpsichord and clavichord. Simple rules have been devised to help categorize the keyboard works of Bach. Those works which have an independent pedal part (in particular the works with an obbligato pedal part) or those that consist of liturgical material (such as a chorale melody) are normally regarded as organ works. Works that do not have a pedal part are regarded as compositions for the harpsichord or the clavichord. This information is gained from the Bach Obituary of 1754, where the unpublished works of Bach are grouped in the following manner:

5. Many free preludes, fugues, and similar pieces for organ with obbligato pedal
6. Six trios for organ with obbligato pedal
7. Many preludes on chorales for the organ
8. A book of short preludes on most of the hymns of the church for the organ
9. Twice twenty-four preludes and fugues, in all keys, for the clavier
10. Six toccatas for the clavier
11. Six suites for the same
Marshall (1986:213) reports on the separate chapters of Forkel’s famous Bach Biography⁠¹ that are devoted to “Bach the Clavier player” and “Bach the organist”, and in his introduction to the organ pieces he puts strong emphasis on the fact that Bach regarded the pedal as an “essential part of the organ”. The *Bach-Werke Verzeichnis* also separates the keyboard repertoire in two categories, where the organ works occupy BWV 525 to 771 and the *Klavier* works occupy BWV 772 to 994. Here the word ‘klavier’ is used to describe music for the stringed keyboard instruments only, whereas the term ‘clavier’ includes all keyboard instruments.

If we take the headings or the title pages of autographs and original editions wherein the preparation was done under the watchful eye of Bach himself, then we are not likely to find clear answers to which keyboard instrument Bach intended for his so-called generic keyboard works. Some of these headings can at first glance seem quite ambiguous because they do not contain explanatory prescriptions such as “pro organo” or “per il, cembalo” which were specifically used to denote the harpsichord. Rather they are most likely termed “a 2 Clav. et Pedal” (two manuals with pedal), “pedaliter”, (with pedal), “manualiter” (only manuals) or only “clavier” (harpsichord or organ?) (Marshall, 1986:216).

Williams (1980:191) believes we should look to the nature of the musical material itself, particularly in the case of the mature generic keyboard works, in order to find out which instrument was intended. What is problematical here, however, is that the character of the counterpoint in his late works sometimes took precedence over idiomatic instrumental writing. An example of this can be seen in the similarity of certain passages found in the F Major Fugue BWV 540.ii and the Italian Concerto BWV 971.ii, where the character of the counterpoint emphasizes the ambiguity of these two works: neither of the movements can be played on either the harpsichord or the organ as a whole. In the

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case of such mature works, created as “demonstration counterpoint”, the nature of that counterpoint is likely to convince the player from time to time that either the organ or the harpsichord is the more suitable instrument to perform these works on. Furthermore, Williams (1980:192) states that whenever questions about the organ versus the harpsichord are being asked, there are usually two specific characteristics of keyboard music involved: (1) the type of figuration (range, speed, hand position), and (2) texture, meaning the compass, reach of the hands, and also the type of notation. The outlay of Bach’s earlier generic keyboard works is without any doubt suitable to the organ or the harpsichord and in this sense the keyboard works of Bach are far more versatile than works from earlier composers in the different traditions (i.e. De Grigny and Francois Couperin). The figurations and textures in the works of such composers are quite distinct in the case of each genre of keyboard music.

3.1 Works Which Carry The Descriptions Organo, Cembalo Or Clavessin
Where Bach included a reference to pedals in the original headings of his keyboard works which specifically mention Orgel or Organo (found in phrases Organo con/cum Pedal(e) ) or Organo pedaliter, it should be interpreted as an indication that Bach must have regarded the pedals as “an essential part of the organ”, as suggested by Forkel (Marshall, 1986:216). Apparently these references to the pedals were also a guideline for organists of the time, who expected to be informed beforehand if an organ work contained an obbligato pedal part or not, otherwise such information phrases would be unnecessary. It should always be assumed that Bach had a valid reason for adding these indications. There are only a few instances where Bach did not add references to the type of instrument he had in mind; the autograph of his Fantasia pro Organo in C major (this work is preserved in the 1722 Clavierbüchlein for Anna Magdalena Bach) and the Praeludium pro Organo pleno BWV 552/1 that is printed at the beginning of the Clavierübung III. However, the indications Ped and Pedal are found in the first bars of these works.
According to Marshall (1986:216) there are no independent pedal parts in original autographs or prints of Bach’s works for harpsichord where the indications Clavessin/Clavecin Cembalo or Clavicymbel/Clavicimbal are specifically given. Furthermore, in the light of the titles of works found in the Clavierübungen II and IV, it seems safe to conclude that, in these cases, Bach was definitely writing for a single-manual harpsichord.

3.2 The Pedal Clavichord and the Pedal Harpsichord
In the primary sources\(^1\) of Bach’s keyboard compositions specifically for the organ, there is a consistent presence of pedal indications. Such indications are absent in a number of compositions for the harpsichord so that this presence and absence of pedal indications support a number of corollaries (Marshall, 1986:220). The works with pedal indications but with no instrumental designation (for example the indication pedaliter or the more commonly used prescription a 2 Clav e(t) (pedal) were definitely intended to be played only on the organ. There exists no proof that they were to be performed on the pedal harpsichord or the pedal clavichord. No mention has been made of these two instruments in the original sources for any of Bach’s compositions or in any authentic Bach documents. Marshall (1986:221) speculates that pedal harpsichords and clavichords were used primarily as practice instruments. A keyboard player would practice pedal technique on these instruments and also used them to compose works that were ultimately intended to be performed on a pipe organ. In the third chapter of Forkel’s biography of Bach, he states that Bach used the clavichord to sight read ensemble pieces at the keyboard and to improvise upon them.

3.3 The Indications 2 Clav. Et Pedal and Pedaliter
There is evidence that Bach regarded the indication 2 Clav. e(t) Ped(al) as a synonym for the organ (Marshall, 1986:221). In the title page of the Schübter Chorales we find the indication Orgel mit 2 Clavieren und Pedal, as well as various headings of the individual chorale settings in Bach’s Clavierübungen III, where the title page specifically refers to the

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\(^1\) The original Bach manuscripts and autographs are regarded as the primary sources, for example the original WTC I and II as well as the Clavierübung and the Orgelbüchlein.
organ in the following indication: vor die Orgel. The heading of the autograph scores for the early chorale prelude, Wie schön leuchet uns der Morgenstern BWV 739, contains the indication a 2 Clav. Ped. In addition, both it and the Concerto a 2 Clav. & Pedale BWV 596, contain the organ registration indications BR (Brustwerk), Brustpos. (Brustpositiv) O and ObW (Oberwerk), and in the BWV 596, R (Rückpositiv). The six trio sonatas that have been suggested as being composed for the pedal harpsichord were catalogued as early as 1754 in Bach’s Obituary as being organ compositions (Marshall, 1986:221).

The pedaliter indication alone, for example, not attached to an organ indication, occurs only once in a Bach autograph; namely the pre-1701 version of the Prelude and Fugue in G Minor, BWV 535. There is evidence that Bach composed this work only for the organ, because there is a revised form of this work in a manuscript. The presence of the autograph entries in the manuscript reads as follows: Preludio con Fuga per il Organo, thus specifying the organ and only the organ. Furthermore, the term pedaliter was used very frequently in the late 17th century and early 18th century for North German organ works which required obbligato pedals, for example the works of Scheidemann, Tunder and Buxtehude (Marshall,1986:221).

The indication con Pedale is found in the Prelude and Fugue in A written by Buxtehude; in Bach’s organ chorale, Wie Schön leuchet uns der Morgenstern, we find reference to pedals in the indication, 2 Clav. con Ped. (Williams, Vol.II, 1980:287; Marshall, 1986:224). Marshall feels so strongly about the fact that the keyboard works of J.S. Bach should be grouped in two distinct categories that he made the following comment:

In sum, the proposition entertained, if not quite advocated, in the pages of the BWV that any composition of Johann Sebastian Bach’s could have been seriously intended for – as distinct from merely tolerated on – a pedal harpsichord or clavichord is surely nothing but a red herring (Marshall, 1986:224).

There are still numerous problems that occur when we try to determine the type of instrument that Bach had in mind for his keyboard works lacking obbligato pedal parts. It has already been established that there are no pedal parts in any of Bach’s harpsichord
works, for example those carrying the indication *cembalo* or *clavecin* (Marshall, 1986:224).

### 3.4 Clavichord
There is no mention of the clavichord in any of the original or early sources of Bach’s keyboard works. Forkel (1920:59) states that Bach regarded the clavichord as the best practice instrument and also for private musical entertainment. The tacit implication of Forkel’s statement is that Bach did not see the clavichord as the ideal instrument for the performance of his more mature keyboard works. In the *Musikalisches Lexikon* Johann Gottfried Walther defines the *clavicordo* as a “first grammar” for all players. The implication of this statement is thus that the clavichord was a practice instrument maybe not very different in its function than the other domestic keyboard instruments used in private musical entertainment (Marshall, 1986:224).

The usage of the pedal clavichord may be a reason for the instrument being more common than the pedal harpsichord at that point in time. It could also be an answer to the suspicion that the 3 *clavire nebst Pedal* that Bach gave to his son Johann Christian was probably three clavichords along with a set of pedals (Marshall, 1986:224).

### 3.5 Manualiter
There can be little doubt that Bach’s eight chorale settings in *Clavierübung* III, that don’t have pedal parts but are specifically marked *manualiter*, were intended for the organ. Firstly, the title page of this collection specifies the organ in connection with the “various preludes and fugues of the Catechism and other hymns”, and secondly, its internal ordering together with the occasional addition of an *alio modo* indication (for example in *Kyrie, Gott Vater in Ewigkeit*, BWV 672; *Vater unser im Himmelreich* BWV 683, *Christ, unser Herr, zum Jordan kam*, BWV 685 and *Aus tiefer Not schrei’ ich zu dir*, BWV 687) should remove all doubt that these works were written as alternatives to the setting(s) of the same chorales *a 2 Clav. et Pedal*. As already mentioned, Bach’s works exclusively for the harpsichord do not contain any pedal parts, thus the only meaning that one could ascribe to the *manualiter* indication would be “in connection with organ rendition”. In
summary then, the presence of the *manualiter* term in reliable Bach sources could be regarded as *prima facie* evidence that Bach intended these works to be performed on the organ and only the organ (Marshall, 1986: 225).

In the light of the above discussion, I came to the conclusion that Bach's keyboard works that carry the descriptions *Organo, Organo con/cum pedal (e), Organo pedaliter, Cembalo, Clavessin, a 2 Clav. e(t) Ped (al), Pedaliter and Manualiter*, should all be regarded as works that Bach wrote exclusively for the organ, and that all the remaining keyboard works that do not have any reference to pedals, should be regarded as harpsichord works only, because no harpsichord works of Bach contained any pedal parts. The pedal harpsichord and the pedal clavichord were thus only practice instruments that were used by organists to practice pedal technique and other works that were intended to be performed on an organ in the end.

4. THE BACH ORGAN

In this section I am going to discuss how knowledge of the ‘Bach organ’ can enable a performer to assure the most historically preferable performance of Bach’s organ Preludes and Fugues. The discussion will include the following organs:

- **Arnstadt, Bonifaciuskirche**
- **Mühlhausen, Blasiuskirche**
- **Weimar, Castle Church**
- **Leipzig, Thomaskirche** (two organs).

Attempts to try and define the ‘Bach organ’ – or, for that matter, to argue why such a definition is impossible - are very common in 20th-century Bach scholarship. Organists such as Dr. Albert Schweitzer were of the opinion that the Walcker organs of 1860-75 were more suitable for the performance of Bach’s organ works than the organs of his (Schweitzer’s) day and he also implied that the instruments of Silbermann\(^1\) were even better than the Walcker organs (Williams, 1980:117; Schweitzer, 1945:296-297).

\(^{1}\) It is unclear whether Schweitzer refers to Andreas or Gottfried or J.A. Silbermann in this context.
Earlier in the 19th century, particularly in France and England, organs were rebuilt with pedals and adequate second manuals specifically to play the music of J.S. Bach. Biographers such as Forkel, Hilgenfeldt, Bitter and Spitta gave detailed descriptions\(^1\) of the type of organ played by Bach. Hilgenfeldt implied that the Schnitger organ in the Katharinenkirche Hamburg, is the ideal ‘Bach organ’. In 1927 the Freiburg conference discussed the matter of the Bach organ with Gottfried Silbermann and in 1948 Keller still claimed that Silbermann’s organs were best suited for the performances of Bach’s Leipzig works. However, Frotscher pointed out the technical limitations of Silbermann’s organs (Williams, 1980:117).

Several organs with which J.S. Bach has been connected have been seen as the ideal ‘Bach organ’. Examples include the organs of the Liebfrauenkirche in Halle, the Katharinenkirche in Hamburg and the Jacobikirche as well as Silbermann’s project for the Paulinerkirche in Leipzig. It is important to note however that none of these organs can claim absolute authenticity in this regard. Although Silbermann’s more reliable and contemporary organs in Saxony are described as some of the most beautiful instruments ever made, there are some early documents connecting Bach and Silbermann that also stress the differences between them. Many of Bach’s works in unusual keys meant that the best keyboard instruments (made by Silbermann) were not suitable for the performance of his works (Williams, 1980:117).

Johann Sebastian Bach has been connected with the organs found in Thuringia, in and around Leipzig, Hamburg and Lüneburg, as well as organs built by Arp Schnitger, found around Lübeck and Lüneburg. The organs of Thuringia, Weimar and Leipzig show the same influences as those of his music, namely the “basic German traditionalism tempered with French colour and Italian fluency” (Sumner, 1961:10). The organ and the music were not as local in their origin or as independent of other regional influences as was usually the case elsewhere. The organs built by Arp Schnitger (1648-1719) and his

\(^{1}\) These authors wrote the following books on J.S. Bach: Forkel (1802) \textit{Über J.S. Bach’s Leben, Kunst und Kunstwerke}. Hilgenfeldt (1850) \textit{“Bach’s Leben, Wirken and Werke”}. Bitter (1881) \textit{“Johann Sebastian Bach”} (4 volumes, second edition, 1881). Spitta, \textit{“Johann Sebastian Bach”} (1873-80, 2 volumes, English translation by Clara Bell and Fuller Maitland, London: 1884-1885).
organ school was the type of instrument known in the Baroque period in North Germany (Sumner, 1961:10; Williams, 1980:117).

All of these instruments were built according to certain principles of tonal and physical structure. The physical structure of the organ was the most important feature of the instrument. Thus it is of no use to consider the nature of the individual ranks of pipes unless we have an understanding of the disposition of the various sections of the organ, as well as of how these sections stood in relation to one another and the building in which the organ was placed. In most cases, the organ was normally placed on a gallery and backed by a wall. The gallery was usually the highest one in the building such as in the chapel of Duke Wilhelm Ernst in Weimar where Bach was the court organist (Sumner, 1961:10).

The period in which Bach worked was a time that was characterized by a changing aesthetic for organs. The large west-end organ became associated with congregational hymn singing, which required big chests, large bellows, many 8’ stops (including stops with a string tone, typical of Thuringian organs), a powerful 16’ pedal tone (usually a *Posaune* 16’), as well as a range of sound that was characterized more by the extreme sound effects (loud and soft) than by a full pallet of equal colours (Owen and Williams, 2001:613).

Many of the Thuringia organs that were built in the earlier 18th century still exist in a good condition, thus giving us an idea of their nature, as well as the influence they are believed to have had on Bach. These instruments were deeper than the organs that were found in places such as Hamburg, Groningen, Paris, Milan, etc. From 1700, organ cases from Berlin to Vienna had lost their earlier shallow and box-like construction (characteristic of older organs) and were built to have independence between the various departments. The independence between these departments of the organ pertained to the way they were used and also reflected their tonal nature (Owen and Williams, 2001:613; Williams, 1980:118).
4.1 The Disposition of the Thuringia Organ from 1700

The main organ (*Hauptwerk*) was situated in the main case, in the lower part of the case where the manuals and the stops were placed. On both sides of the case were towers containing the large pedal pipes with the smaller pedal pipes behind them. Behind the back of the player was a smaller case called a *Rück-Positiv* (the positive organ at the back) and this was the second most important manual division of the organ. The *Rück-Positiv*'s number of stops and its power could never be compared to those of the *Hauptwerk*. Therefore, if one was to play a work that requires the *Hauptwerk* and the *Rück-positiv* on a modern day two-manual organ (with a Great and a Swell Manual), the *Hauptwerk* must be played on the Great manual and the *Rück-Positiv* must be played on the Swell manual (Sumner, 1961:10).

The *Rück-Positiv* was nearer to the congregation than any other division of the organ. In a three-manual organ the third manual was called the *Brustwerk* (Breast work). There were some creative organ builders who divided the *Brustwerk* into two sections and placed one part on each side of the console. The *Brustwerk* was normally placed above the music desk and just below the *Hauptwerk* and could also be closed by cupboard doors. The pipes of the *Brustwerk* could easily be reached by the organist, because it contained ranks of regal pipes that went out of tune frequently. Its accessibility to the organist was thus a necessity. If the organ had a fourth manual division, it could take the shape of another smaller section that could be placed above the *Hauptwerk* pipes. Such a division was known as an *Oberwerk*. In the 18th century the pipes of the *Oberwerk* were enclosed in a box and it became an Echo organ. In the case of a three-manual organ, there were no hard and fast rules pertaining to which manual came first: the *Brustwerk* or the *Oberwerk*. In the 18th century the *Oberwerk* was sometimes provided instead of a *Rück-Positiv*. After the middle of the 18th century, all the divisions of the organ were placed in one case (Sumner, 1961:10-11).
4.2 The organ of the Bonifaciuskirche in Arnstadt Thuringia

The organ of the Bonifaciuskirche (New Church) was built by Johann Friedrich Wender in 1703. Bach became the organist there in 1703 at the age of 18 years (Sumner, 1961:11; Williams, 1980:119). The Arnstadt organ was the type of instrument known to the Pachelbel school and also by the Bach family. The particular type of second manual on the Arnstadt organ, its pedal department and the range of 8′ manual colours was traditional for a very long time in the Thuringia region in Germany. The organ was originally situated in the west–end gallery above the other two galleries. Sumner (1961:11) describes the Arnstadt organ as a small instrument with the first manual controlling the Oberwerk that was placed above the Brustwerk. Due to its size and its composition of stops, it was not adequate to be called a Hauptwerk.

Following is a stoplist of the Arnstadt organ.

**Oberwerk**
- Principal 8
- Viola da Gamba 8
- Quinte dene 8
- Grossgedacktes 8
- Offene Quinte 6
- Octave 4
- Mixture 8 (IV)
- Gemshorn 8
- Cympel doppelt (III)
- Trompete 8
- Tremulant
- Cymbelstern

Couplers: Brustwerk / Oberwerk, Oberwerk / Pedal

**Brustwerk and Positiv**
- Principal 4
Stillgedacktes 8
Hohlflöte
Spitzflöte 4
Quinte 3
Sesquiltera doppelt
Nachthorn 4
Mixture III (IV)

**Pedal**
Principal 8
Sub Bass 16
Posauen Basse 16
Cornet Basse 2 (Williams, 1980:119).

According to Owen and Williams (2001:613) many of the details of Bach’s organs at Arnstadt (1703 – 1710) still remains unclear, as well as larger matters concerning registration and tonal effects. However, the fine restorations by organ builders such as Trost and other Bach contemporaries, and the increasing accessibility of Thuringia and Saxony from 1989 onwards, has played a great role in constructing an understanding of these matters and “in the dispelling of many Orgelbewegung misconceptions” (Owen and Williams, 2001:613).

The order of the stops in Wender's contract may reflect the order of the ranks on the chests. The *Brustwerk* is divided on either side of a central panel (now altered) and suggests that this was done to allow the *Oberwerk* to have suspended action, as this was conventional in the area. Suspended action remained conventional, although the chest-plan at Arnstadt which halved the pedal-chests to the front, on both sides of the *Brustwerk*, was not the norm and must be considered to be an antique feature (Williams 1980:129).
The layout of the chest probably followed the pipe arrangement of the case, where both the Oberwerk and the Brustwerk pallet–boxes were situated in the front of the organ. The Violon 16 (probably of very small scale) could have been placed at the back, with or without the Posaune. On the present case–front of the Arnstadt organ, one Oberwerk tower and both of the pedal towers have Cymbelstern designs. The present console has the Oberwerk keys protruding from the case front, but not the Brustwerk. This manual is symmetrical, for example, natural–sharp–natural at each end. This kind of arrangement would make the ‘D’ key play C and the ‘D#’ key to sound D (Williams, 1980:120).

Unlike Ohrdruf (which was rebuilt in 1690-1708), the organs at Eisenach and Arnstadt did not have a Rück-Positiv. Both organs were displayed high and wide against the west-end wall, just opposite the altar. The divided Brustwerk found in the Arnstadt organ was paralleled on a greater scale in Eisenach, where there was a Hauptwerk, Brustwerk and two pairs of side chests, upper and lower. Manual reeds were not prominent in the Arnstadt or the Eisenach organ, but both organs had a low chorus Quint as well as important sesquilteras. Wender’s contract states that the pedal department consisted of 8’, 16’, and 2’ stops. However, it seems to have been replaced by a heavier pedal department, although this is uncertain (Williams, 1980:120).

The Arnstadt organ must have been suitable for two good types of plenum, such as Sesquitera, various solo soft colours, including three or four characteristic 8’ registrations, triads of C major, most probably used to create a special effect on feast days. Some of Bach’s works would not have been suitable on this organ. These include works that require more equal choruses and various solo colours, i.e. reeds, larigot, works that requires tenor or cantus firmus in the manual or in the pedal and brilliant manual lines for the performance of trios (Williams, 1980:121).

4.3 The Organ of the Blasiuskirche (Divi Blasii) in Mühlhausen
Bach applied for the post of organist at the Blasiuskirche in 1706, after the death of the former organist, George Ahle. The condition of the two–manual organ was
unsatisfactory, and Bach proposed to the church council that the organ should be thoroughly renovated. The proposal was approved and they entrusted Bach with the supervision and guiding of the work done by the organ builder, Johann Friedrich Wender (Dähnert, 1986:6).

The parishioners requested that a Glockenspiel (with 26 bells at 4’ pitch) should be built, but this never happened. The Trompete 8’ in the Oberwerk was replaced by a Fagott 16’. In the place of a Gemshorn, a Viol di Gamba 8’ was installed in the Rück-positiv so that it would complement the Salicional 4’, and it was recommended that a Nasat 3’ should be added instead of a Quinta 3’. Bach also recommended that a coupler should be added between the Brustpositiv and the Oberwerk. After the whole organ had been completely tuned, the parishioners requested that the Tremulant be regulated so that it could “flutter at the proper rate” (Dähnert, 1986:7).

Dähnert (1986:7) states that Bach had the following stops in mind for the Brustpositiv. In the case there should be three Principals, namely:

- Quinta 3’
- Octave 2’
- Schalemoy 8’
- Mixture 3 ranks
- Tertia, when drawn with a few other stops could produce a fine Sesquiltera
- Fleute douche 4’
- Stillgedackt 8’ made of wood which should sound much better that a metal Gedackt.

The organ was situated in the second west-end gallery. The following is a specification of the organ:

**Ober and Hauptwerk** (II)

Principal 8
Oktave 4
Oktave 2
Cymbel II
Mixture (50% tin according to Wender’s report)
Violdigamba 8
Gedackt 4
Quinte (Nassat according to Bach’s report)
Fagott von C bis c’ 16
Quintatön 16
Sesquiltera II

**Brustwerk** (III)
Principal 2
Mixture III
Schallmey 8
Quinte (3 according to Bach’s report) 1 1/3
Terz 1 3/5
Flöte 4
Stillgedackt 8

**Rückpositiv** (I)
Gedackt 8
Salicional 4
Spitzflöte 2
Sesquiltera
Principal 4
Quintatön 8
Quintflöte 1 1/3
Cymbel III

**Pedal** *(Basslade)*
Untersatz 32
Principal 16
Subbass 16
Oktave 8
Oktave 4
Mixture IV
Posaune 16
Cornettbass 2

4.4 The organ of the Castle Church in Weimar (Schlosskapelle)
Bach was the organist at the Castle Church in Weimar from 1708 until 1717, the most productive period for his organ compositions. The church, originally St. Martin’s, was destroyed by fire in 1618 and the new building was constructed in 1658. The new church was a very tall construction in comparison with its length and breath. There were three galleries and the organ was situated above the altar in the third gallery. The Castle Church received the nickname “Der Weg zur Himmelsburg” (The Way To The Heavenly City) and it was decorated with a blue sky embellished with white angels ascending towards the organ, giving it a celestial appearance. There is a very strong possibility that the visual biblical symbolism of the church was reflected in Bach’s Weimar organ works (Sumner, 1961:14).

The organ originally dates from 1658 (built by Ludwig Compenius) and was repaired and partly rebuilt in 1708 and also in 1713-1714. The organ was recessed in a chamber that had its own roof, and it was moved to the back of the gallery in 1707-1708 when it was partly rebuilt. Compenius suggested that a Rückpositiv should be added but instead a second manual seems to have been a side-positiv (Dähnert, 1986:7-8; Williams 1980:124). The following is a stop list of the Weimar Chapel organ.

**Ober Clavier**
Principal 8 (tin)
Quintadena 16 (metal)
Gemshorn 8 (metal)
Grobgedackt 8 (metal)
Quintadena 4 (metal)
Octava 4 (metal)
Mixture 6 ranks (metal)
Cymbel 3 ranks (metal)
A Glockenspiel with a stop-knob

Untern Clavier
Principal 8 (tin)
Viol di Gamba 8 (metal)
Gedackt 8 (metal)
Trompete 8 (metal)
Klein Gedackt 4 (metal)
Octava 4 (metal)
Wald-Flöte 2 (metal)
Sesquiltera 4 ranks

Pedal
Gross Untersatz 32 (wood)
Sub-Bass 16 (wood)
Posaun-Bass (wood)
Violon-Bass 16 (wood)
Principal-Bass 8 (metal)
Trompeta-Bass 8 (metal)
Cornett-Bass 4 (metal)

Accessories
Tremulant for the Hauptwerk
Tremulant for the Unterwerk
Oberwerk to Pedal coupler
Manual coupler


The organ was tuned in cornet pitch (high choir pitch)$^1$, and this caused the instrument to sound a pitch of a minor third above chamber tone$^2$. If the melodies of the *Orgelbüchlein* have been composed at sung pitch, the tone could not have been more appropriate for the choir boys who sang the chorales and needed to be accompanied, than it was suited for the congregation (Sumner, 1961:14; Williams, 1980:124).

According to Dähnert (1986:7-8) and Williams (1980:125), the specification of the Castle Church organ is uncertain because of the rebuilding that took place in 1708, the nature of the repair work (1718-1719) and the absence of a precise specification before the 1730’s. The new organ of the Castle Church, where building began in 1756, seems to have been almost identical to that in 1737, and Compenius’s specification of this new organ was as follows:

**Hauptwerk and Pedal**: 8.16.8.4.8.4.3.2.IV-V.II (or III)

**Pedal chest**: 16.16.16.2

**Rück-positiv**: 4.8.8.4.2.II.8.4

**Brustwerk**: 4.2.16.4

*Cymbelsterns, Vogelgesang, Trummel, Tremulant* (throughout) 2 Sperrventils

Compass: with D#, F# and G# as well as keys for d#/e flat’, d#/e flat” and g#/a flat’, g#/a flat”

“Ivory keys, four bellows and a metal alloy of 9:6 tin” (Williams, 1980:125).

Williams (1980:125) speculates that a *Rück-positiv* was not actually built, but there is always the possibility that the removal of the organ away to the back of the gallery in 1707-1708 could have included the removal of a chair (positiv) organ, and that even the

$^1$ A$=480$ Hz

$^2$ A$=415$ Hz
registration of the Concerto in D Minor BWV 596 reflects the uncertainty as to the type of stops this much-repaired organ eventually contained. There exists doubt about the compass of this organ due to lack of later references with regards to split sharps. The 29 bells for the cymbelstern were brought from Nuremberg in 1712 and another 12 in 1713, and this complicates the calculation of the organ’s compass even further.

It is possible that the 29 bells could have been intended for the pedal, and if this was the case, for what compass: C-e’ complete or CD-f’? Were the additional 12 bells bought in order to replace some of the 29 bells or was there a total of 41 bells, and if this was the case, for what compass were they intended? The fact that Bach had composed so much organ music at Weimar and the fact that he had been able to direct many organ repairs, as well as influence several important organists, make this instrument the most important “Bach organ”. In comparison to the Weimar organ, Williams (1980:126) gives the following description of the Weimar Town Church where J.G. Walther was organist.

*Hauptwerk* 8.16.8.8.4.3.2.IV.III.8  
*Rückpositiv* 4.8.8.4.4.2.1.II.III  
*Pedal* 16.16.8.2. (3 reeds)  
*Tremulant to each manual*  
HW /P, RP/P couplers (plus a manualshove coupler?)  
*Zimbelstern*  
*Six bellows.*

In comparison to this organ, which possessed colourful *Positiv* 4’ ranks as well as a restricted pedal department, the Weimar Castle Church organ had unusual features:

- The scope for 8.4 combinations was much wider  
- The bass line was much stronger  
- It seems that there was not high chorus ranks except for two manual choruses of distinct character. It seems that Bach either kept or consolidated the idea of a *plein jeu/grand jeu* relationship: *plein jeu* – HW 8.4.Vi.III; *grand jeu* – 8.4.Sesquitera, *Trompet* (Williams, 1980:125)
The above mentioned arrangement would be made possible by a court-chapel organ that had two wide tiers in one case placed high above the altar, rather than being a vertically designed construction complete with a separate positive organ. It is not certain how choruses like these lent colour to performance, but the fact that the distant effect of the organ being placed in a top gallery, as well as being in a chamber back from the front of the gallery, would have contributed a certain sound quality to the 8.4 registration in the *Orgelbüchlein* for example. The two flute choruses (16.8.4 and also 8.4.2) can be imagined to have been hovering at the top of the tall and narrow building. Very little of either “heavy or tinkling” Baroque organ sound would have been possible at Weimar. It seems that the emphasis was placed rather on a wide variety of colours and combinations, suitable for solo interlude and/or background music that were required in a court chapel, than for the types of accompaniments needed in a parish church where the organ was usually placed much nearer to the congregation (Williams, 1980:126).
4.5 The Two Organs Of The Thomaskirche In Leipzig

4.5.1 The Large Organ of the Thomaskirche

The Thomaskirche had a small and a large organ at the time that J.S. Bach became the cantor at the Thomasschule in 1723. Sumner (1956:99) states that the first record of an organ was in 1356 and it was built by Joachim Schund. Towards the end of the 15th century, a new organ was built by Blasius Lehmann and in 1525 an organ was removed to the Thomaskirche from the Kloster der Antoniemonche. This organ was repaired from 1538-39 by Leonard Franke and Amerbach made changes to it in 1580 and 1585. The organ was rebuilt in 1590 by Johann Lange and in 1619-20 it was enlarged with 9 stops by Josias Ibach. Further repairs were being made in 1657-58, and in 1702-3 several other parts of the organ had been repaired, including the ten bellows. In 1721-22 Johann Scheibe repaired and rebuilt the organ and added 400 new pipes and later worked on the Posauen bass to make it sound louder. In 1739-40 a new pedal board of 24 notes was fitted and in the next two years the bellows were also improved. In 1747 Scheibe was paid 200 Thalers to do further repair work that have been requested by Bach and Görner. The organ builder added a new Rückpositiv at the front of the gallery (Williams, 1980:132).

The following is a specification of the organ as it was recorded in 1722.

**Oberwerk**
Principal 16
Principal 8
Quintadena 16 (or 8?)
Octava 4
Quinta 3
Super Octava 2
Spiel –Pfiefe 8
Sesquiltera II
Mixture VI / VII-X
**Rückpositiv**
Principal 8
Quintadena 8
Lieblich Gedackt 8
Klein Gedackt 4
Traversa 4
Violin 2
Rauschquinte II
Mixture IV
Spitzflöt 4
Schallflöt 1
Krumbhorn 16
Tromet 8

**Brustwerk**
Grobgedackt 8
Principal 4
Nachthorn 4
Nasat 3
Gemshorn 2
Zimbel II
Sesquiltera
Regal
Geigenregal 4

**Pedal**
Subbass 16
Posauhenbass 16
Trommetenbass 8
Schallmeyenbass 4
Cornet 2

Tremulant
Vogelgesang
Zimbelstern
Sperrventil to every chest

The resonators of the Posauenbass 16, Trommetenbass 8, Schallmeyenbass 4 and the Cornet 2 are made of metal. The compass and couplers of the organ are unknown. Williams (1980:132) states that Praetorius's description of the old organ said that the Principal 16 was playable also by Ped and couplers 'to both manuals'. Examples include the following: Brustwerk/Oberwerk, Rück-Positiv/Oberwerk and also Rück-Positiv to pedal. Doubts about the stoplist concern certain individual stops. The Oberwerk Quintadena 16 could have been an 8' stop (perhaps a very narrow Gedackt), the Sesquilatera on the Brustwerk was probably added in 1722, and there is a possibility that the Rück-Positiv Principal 8' could have been a 4' stop. None of these suggestions have been confirmed in a report on the organ from c1700 (Williams, 1980:132).

In the 1730 report on the organ, Scheibe speaks of the instrument as being 'newly tempered'. This comment seems to suggest more than mere adjustment in the course of cleaning work undertaken during that period. The report also speaks of a ‘thorough revoicing throughout the organ’ and this included the Posaune 16’ which is described as being a little too weak and that it was necessary that it had to be made as strong-sounding as possible (Williams, 1980:132).

Temperament and voicing were worked on under Bach’s supervision. The organ parts in Bach’s Leipzig cantatas had to be notated and played a tone lower to allow for the organ’s high pitch. Therefore, at least one rank (Brustwerk’s Grobgedackt or Rück-Positiv’s Lieblich Gedackt?) must have been tuned to equal temperament. The remark made by Scheibe, may even suggest that the whole organ was so tempered. With
regards to pitch, Krinberger noted in 1769 that the organs in Leipzig available in the time of J.S. Bach were all in *Chorton*¹ (Williams, 1980:132-133).

### 4.5.2 The Small Organ of the Thomaskirche

The small organ was enlarged by H.Compenius in 1630, repaired by J.Scheibe in 1720-21, Z. Hildebrandt (possibly from 1727) and broken up by Scheibe in 1740-41. The organ was originally placed on the west wall near the large organ and removed to the east wall later on. The specification of the organ is listed below in Williams (1980:133).

**Oberwerk**

Principal 8  
Gedackt 8  
Quintatön 8  
Octave 4  
Rauschquinte 12.15  
Mixture IV/V VI/VII-X  
Cymbel II

**Brustwerk**

Trichterregal 8  
Sifflöt 1  
Spitzflöte 2

**Rück-Positiv**

Principal 4  
Lieblich Gedackt 8  
Hohlflöte 4  
Nasat 3  
Octave 2

¹ A=466 Hz, a semitone above concert pitch.
Sesquiltera II
Dulcian 8
Trompete 8

**Pedal**
Subbass (wood) 16
Fagott 16
Trompete 8

“Tremulant, Zimbelstern, Sperrventil to each chest, 6 bellows” (Williams, 1980:133).
There are some doubts about the stop list concerning the organ’s original position. The church is “conversely orientated”, thus the first ‘west’ wall could perhaps be the liturgical east wall. The number of manuals is also doubtful, because a report dating from c1700 describes the large organ as having three manuals but gives no details of the small organ. It is possible that the *Brustwerk* was playable from the *Oberwerk* keys. It is still uncertain how playable the small organ was for the performances of the St. Matthew Passion, or if it was able to play the cantus firmus in ‘O Lamm Gottes’ or ‘O Mensch bewein’, but Hildebrandt’s work on it may indicate a certain need for the organ (Williams, 1980:133).

Several plena were possible on the main manual of each organ and both *Rückpositiven* were capable of old-fashioned variety. Both *Brustwerke* “served continuo purposes well” (Williams, 1980:133). The small organ reflects the German practice of having a wind orchestra in the gallery. On both organs the pedal could play the cantus firmus in the bass or in the tenor. The large organ must have found a dialogue of two manuals feasible. The large organ was the type of instrument that had been the norm before a preference “for lifelike flutes and up-to-date reeds or for the big single-case organs came about” (Williams, 1980:133).
Agricola\textsuperscript{1}, who was one of the Obituary authors, remarks on an advantage that the Leipzig \textit{Thomaskirche} and the \textit{Nikolaikirche} organs had. As in the Schnitger organ in the Berlin \textit{Nikolaikirche}, the manuals protruded from the front of the organ and this facilitated pedal-playing. Unless the manuals protruded or unless the pedalboard was situated further back into the organ, one could not sit upright. If organists want to play on the pedals correctly they should sit completely upright. It is possible that this practice could have originated with J.S. Bach and in particular from the rebuilds of Scheibe. Either way, this practice suggested a newer approach to pedal playing, possibly more versatile and easy (Williams, 1980:134).

The organ of the \textit{Nikolaikirche} was somewhat larger than the \textit{Thomaskirche} organ and made possible every registration known (with whatever authenticity) in reliable Bach sources. In the 1730’s and the 1740’s this organ was in the hands of Hildebrandt and it was more greatly admired by Bach than the organ of the \textit{Thomaskirche}.

5. \textbf{WHY IS KNOWLEDGE OF THE BACH ORGAN ESSENTIAL FOR THE ORGANIST OF TODAY?}

World famous concert organist, Marie-Claire Alain, states that the organist of today cannot “ignore the practice of early instruments” (Alain, 1986:48). The reason for this is that in performance practice the preference for historical authenticity “dethroned” the belief of instrumental technique being in constant progress. Over many years musicians realized that each period in music history possessed a particular way of playing connected with the instrument(s) of its time. It has now been established that in periods past, organists played differently on instruments of different construction.

At the time J.S. Bach died, the organ was already the so-called “black sheep” of the keyboard instruments. The newly invented \textit{forte-piano} offered all kinds of new possibilities, such as dynamic expression. This caused performers of keyboard

\textsuperscript{1} Agricola in Adlung. 1768:24, Volume II
instruments to almost forget the nuances of touch so important to the early masters. Felix Mendelssohn, with his *Ecolè d’Orgue* (the original title of his Organ Sonatas Op. 65) may be regarded as the last defender of the organ as it was played in the Baroque. The so-called Baroque organ was so interesting to Mendelssohn that he often went to Rötha to play the magnificent Gottfried Silbermann organ in St. Georgen. This instrument still exists today. In trustworthy editions of Mendelssohn’s organ works (Henle Edition or the Lea Pocket Score) one will notice that he expects from the performer to have a real sense of articulating musical phrases as it would have been performed on a mechanical-action organ (Alain, 1986:49).

Mendelssohn’s Organ Sonatas were published at the same time as the first Barker lever and tubular pneumatic actions started to appear. Soon afterwards the Swell division of the organ was enclosed in an “expressive box”, operated by the organist’s foot to imitate the crescendos, diminuendos and sforzandos possible on the piano. Once again performers began to lose their sense of touch, as the new expressive device was seen as a method to enhance virtuosity. New repertoire was written for an instrument that was easier to handle; the result of this was the Romantic organ. Evolution of performance took place and this changed according to the country and school of organ playing. At the same time the art of performing early music as well as knowledge of ornamentation and Baroque registration were lost. Performers believed that in order to improve the music of ages past, they should adjust it to the “nouvelle mode”. This meant that one school taught a completely legato touch while others recommended a type of exaggerated articulation – the former standardized the duration of note values while the latter ignored accents and strong beats. The aim of all these schools was to give life to “a keyboard rendered inert by the use of an intermediary (pneumatic or electric) between the performer’s finger and the valve controlling the admission of air into the pipe” (Alain, 1986:49).

The advent of electricity made the problem even worse. Performers started to indulge in what Alain calls musical “pointillism”: they became tempted to reorchestrate a Bach fugue. Even composers such as Arnold Schoenberg started to indulge in these
fantasies, as seen in his orchestration of the Prelude and Fugue in E-flat BWV 552. The newly invented pistons aided various types of sonority changes, as well as the now frequently employed changes of manual, to imitate decrescendos for episodes and crescendos for conclusions (Alain, 1986:49).

Alain (1986:49) states that very few conservatories of music provide a course of organ study that enables students to form a clear idea of performance style used in past centuries. That is why every organist who is concerned with authenticity should have a thorough knowledge of early organs, or at least good copies of them. If at all possible, the performer should ideally practice on this type of organ on a regular basis in order to accomplish the musical and technical “retraining” required by such an instrument. Practicing in this manner will enable the organist to experience new elements of performance. These include the following:

- Mechanical aspects, which can be derived from the use of the organ
- Musical aspects, derived from the mechanical aspects, as well as new aural and intellectual demands made on the organist.

Mechanical aspects of early organs seem to appear very negative at first.

1. The air is unstable and because of this it is impossible to play fast without a distortion of sound taking place.
2. The keys are very short, making finger substitution very difficult. This often causes the sound to break or cease completely.
3. The pedal board is short (usually not expanding very far under the manuals) and this causes difficulty in using the heels in pedal playing, except in the very low or high range.
4. Draw knobs are far away from the manuals, making them difficult to manipulate.
5. The performer cannot use the shove coupler while playing, because it would be difficult to manipulate and there is the danger of breaking the mechanism.
6. There is not sufficient air supply for all the stops – flutes, principals and reeds cannot be played simultaneously without the wind pressure dropping (Alain, 1986:50).
There are solutions to all the above mentioned problems. The performer has to give up a number of old habits, such as the following:

1. If an organ is constructed for a specific building, it has to be adapted to the acoustics of that building. The performer should not adopt a pre-determined tempo but must learn to listen to the organ and the way it reacts. Those who know how to listen will be able to choose a tempo related to the “breathing” of the organ. Be careful when using a metronome to establish the tempo.

2. Performers should take care when working out the fingering of a piece. Most of the time substitution is useless and giving it up will greatly facilitate playing as well as producing the “breathing that is necessary to musical discourse”.

3. This rule applies also to pedal playing. If performers abandon the general use of the heels, they will be able to produce a type of articulation that imitates the bowing of a cello.

4. Performers are advised not to change the registration during the course of a work unless the score indicates it as such (there are not more than 5 or 6 examples of this in all of Bach’s compositions).

5. Do not use the coupler while playing. The performer should wait until the work requires this.

6. Organists should have a thorough knowledge of the registration of the time. In the Baroque the *plenum* generally consisted of only one stop at each pitch: 8’, 4’, 2’, Mixture, Cymbel. Only in the case of Silbermann does one see the Principal 8’ doubled by a Bourdon 8’, and later the Octave 4’ is doubled by a Flute 4’ (Alain, 1986:50-51).

The following is a list of the musical characteristics of early organs that organists should keep in mind when performing the works of Bach today:

- Bad restorations of early organs caused organists to believe that these instruments were hard to play. However, a well-built (and well-restored) early
organ is not hard to play. Alain (1986:51) calls it a “classical” mechanism with which the organists can forget pneumatic and electric actions and learn how to make music with their fingers. If they practice on an organ with sensitive tracker action every day, they will be able to rediscover the nuances of “touch” recommended by classical treatises. Organists will then be able to understand the necessity of correctly placed accent as well as the musical phrase modeled according to vocal pronunciation or the bowing of a string instrument.

- The performer is advised to make use of early fingering, a consequence of the above. Good hand and foot positions are essential in good organ playing and will always result in a comfortable performance.

- Right from the beginning the performer should choose the best registration for any given piece. If the *plenum* sounds good on its own, it is not necessary to outline a fugue theme in the tenor or to even insist on decrescendo by change of manual, or to include a final crescendo. Bach’s greatness can be seen in the manner he proceeded to provide variety within unity. The exposition of a Bach fugue can be seen as one gigantic crescendo. Alain (1986:51) explains the phenomena by analyzing the Fugue in G minor BWV 542. The exposition proceeds in the following manner: one voice (soprano), two voices (soprano and alto), three voices (tenor is added), and finally four voices (the bass enters and the manual voices proceed into a high range). After the counter-exposition and a cadence in the relative key, the pedal stops. There is no need for a change of manual here when the piece has only three, and then only two voices. The decrescendo is contained in the counterpoint itself. The genius of Bach then further reveals itself as the master reintroduces each voice in its strongest register in order to make it sound at its best and at the same time contributing to the sonorous (and formal) building up of ascending passages, in itself a crescendo.
It is not necessary for the performer to divide the work into smaller pieces in order to create colour when Bach had already taken care of all that within a single *plenum*. Whenever the organist feels that a work is lacking colour it is best to choose a type of registration that gives a sense of perfect balance between the counterpoint and dynamic feeling. Clarity is essential in good Bach playing; all the voices in a counterpoint should stand out clearly. To be able to form an understanding of registration in Bach playing, it is of the utmost importance that performers gain a thorough knowledge of the type of organ that was known to Bach (Alain, 1986:51-52). It should be noted that Bach often changed jobs and he did not write for a single organ but rather for a number of them, usually instruments that belonged to other people. The organs of the Marienkirche (Lübeck), Katharinenkirche (Hamburg), Liebfrauenkirche (Halle), and Wenzelkirche (Naumburg) are more instructive than the two-manual instruments Bach had at his disposal in Arnstadt or Weimar. Another factor that should be taken into account is that Bach appeared in public over a period of almost 50 years (1700-1750) and during this time the organ was in a state of evolution. Bach started his career on an instrument close to Praetorius and gave his last concerts on organs that contained an Unda Maris and French reed stops. In the recommendations Bach made for the reconstruction of the St. Blasius organ, he praised the potential of such stops (Alain, 1986:52).

The great organs built by Arp Schnitger was the type of instrument for which Bach wrote most of his youthful works, while most of his mature works were written for the organs of Central Germany. At the time that Gottfried Silbermann returned from France (1710) organ builders such as Hildebrandt and Casparini were producing their best instruments. Alain (1986:52) states that the organ that Bach had in mind for the performance of his Prelude and Fugue in B minor BWV 544, the Prelude and Fugue in E minor BWV 548 and the *Clavierübung* III was an instrument of transition. The organs of Bach’s day had a sound quality that cannot be reproduced on even the most beautiful modern copy (Alain, 1986:53).
CHAPTER 3
INTERPRETING BACH’S ORGAN PRELUDES AND FUGUES TODAY

In this chapter, I am going to do a literature study on interpreting the keyboard works of J.S. Bach, with special reference to the organ preludes and fugues. Before doing so, however, I shall consider the grey area that surrounds questions of performance practice in the case of Bach’s organ preludes and fugues, and consider possible solutions for the performer in this regard.

1. THE GREY AREA SURROUNDING THE PERFORMANCE PRACTICE OF THE ORGAN PRELUDES AND FUGUES OF J.S. BACH

I believe that there exists a grey area within the performance practice of the organ preludes and fugues of J.S. Bach. There are several excellent sources that deal with interpretation in early keyboard music, such as Ferguson’s *Keyboard Interpretation from the 14th to the 19th Century* (1987), Badura-Skoda’s *Interpreting Bach at the Keyboard* (1993), Bodky’s *The interpretation of Bach’s Keyboard Works* (1960) and Williams’ *The organ music of J.S. Bach*, Volumes 1, 2 and 3 (1980). However, in most cases these sources focus only on the keyboard works which Bach wrote for the harpsichord, clavichord and the fortepiano. Books like these discuss in particular the Preludes and Fugues from the WTC I and II, with very little reference, if any, to the interpretation of the organ Preludes and Fugues. These sources are nevertheless helpful to the organist in suggesting the range of musical parameters that should be considered, namely:

- Rhythm
- Tempo
- Fingering
- Articulation
- Dynamics
I feel that greater clarity is required on the performance practice of J.S. Bach’s organ Preludes and Fugues because we cannot derive a method of performance practice for these works based solely on books that deal with keyboard interpretation in general. The organ is different to other keyboard instruments in terms of sound production, action and technique. My solution to this problem is to attempt to define a method of organ playing in this chapter that clarifies registration, tempo, rhythm, articulation, fingering, phrasing and ornamentation in the organ Preludes and Fugues of J.S. Bach. This method is derived from the following sources: Donington (1960), Emery (1953), Ferguson (1987), Gleason (1996), Goode (1964), Schweitzer (1945), Stauffer and May (1986), Sumner (1956), Sumner (1961), Williams (1980) and Zehnder (1978).

There is another reason why I think this study has a contribution to make to performance practice discourse in the case of J.S. Bach’s organ works. I believe that we cannot learn everything that there is to know from books about methods of performance, be these for keyboards in general or for the organ in particular. I believe that there exists a certain degree of tacit knowledge, everything not written down, but passed on orally from the teacher to the student. In addition to studying historical performance conditions, we can learn a lot from listening to the contemporary performances of others, or from interviewing well-known organ pedagogues. These matters turn on the debate between modernist and postmodernist views of authenticity in performance, and will be discussed in greater detail in the following chapter. For now, however, we turn our attention to establishing the historical boundaries within which Bach may have performed his own organ works, or heard them performed by others.

2. REGISTRATION

Performance indications in the organ works of Johann Sebastian Bach are very scarce. The manual changes in the Dorian Toccata BWV 538, the chorales in the Orgelbüchlein and the indications 8’ 4’ and 16’ stops to be used in the Scübler chorale trio’s, are some of the few performance indications Bach had left us (Schweitzer, 1945:294).
J.S. Bach had a very distinct manner of choosing registration for his organ works. C.P.E Bach and Johann Friedrich Agricola stated in Bach’s Obituary that the latter combined various stops “in the most skillful manner” and that he displayed each stop “according to its character, in the greatest perfection” (Gleason, 1996:14). It was often said that many organists and organ builders were startled, almost frightened, when they saw the unusual combinations that Bach selected. Afterwards they were very surprised when realizing that the organ sounded at its best, and that none of them could achieve the same tone colour with alternative stop combinations (Schweitzer, 1945:295; Gleason, 1996:14).

Bach had the privilege to play the majestic organ in the Katharinenkirche in Hamburg which had 16' reeds. Adlung stated how Bach could not praise the beauty and variety of tone highly enough. He was also very impressed with the 32’ pedal Principal and the Trombone. During his youth Bach had the opportunity to gain knowledge of North German organs built by Arp Schnitger (and other similar organs) in Lüneberg, Lübeck, Hamburg and other surrounding towns. He became acquainted with organs in central Germany when he journeyed there to examine and to report on new organs in Halle (1716), Erfurt (1716), Leipzig (1723-1750), and Dresden (1725). In Dresden he played Silbermann’s organs and was very impressed with what he called their “silvery tone and thundering basses” (Gleason, 1996:14).

Although it is said that Bach’s method of registration was somewhat unusual, he did not abandon the registrational practices of his time. Unlike French registration methods, German registrational practices were never dogmatic. During the 17th and 18th centuries, French organists evolved very elaborate registration systems. French organs were usually constructed along standard lines, and because of this, composers could write works with specific stop combinations in mind, knowing beforehand that such combinations would be available on organs throughout the country. Registration possibilities and composition considerations were closely linked (Stauffer and May, 1986:194).
In Germany such exact registration practices were not possible because local traditions were much stronger and organs were being constructed according to regional taste. The wide variety of organs found in Germany prevented composers from adopting a particular system of registration as codified as their French contemporaries. Several treatises on organ building and organ playing report on the division of registrations into two distinct categories: the full organ (das volle Werk, die volle Orgel, organum plenum or Organo pleno) and all the remaining and more colourful combinations. Certain types of pieces were associated with each of these registration systems (Stauffer and May, 1986:194).

2.1 The Full Organ
Eighteen manuals present us with quite detailed information of organum plenum, or full organ. It was used for the performance of free works, such as fugues, preludes, toccatas, fantasias and all other works not linked to a chorale melody. This method of playing free pieces "pro organo pleno" was longstanding, dating from the mid-seventeenth century through to the late nineteenth century. During Bach's lifetime there seems not to have been any disagreement on the subject; theorists recommended that only the plenum should be used in the performance of free works. Manuscript scores of the 17th and 18th centuries support the recommendations of theorists. However, most of these manuscripts do not include instructions on registration. In free works, there are sources that include the phrase “pro Organo pleno”, or similar expressions that confirm the use of the plenum. Such phrases appear in the manuscripts containing free works by Buxtehude, Johann Ludwig Krebs, Johann Kittel and others closely linked to Bach. An example would include Krebs's Toccata and Fugue in A minor marked pro Organo pleno con Pedale obligato. This work of Krebs is modeled directly after Bach's Toccata in F BWV 540/1 and it is highly unlikely that Krebs would imitate Bach's compositional style and not follow the same registrational system as employed by Bach in his Toccata. The heading that Krebs used in his Toccata implies that Bach's Toccata in F was also written "pro organo pleno" (Stauffer and May, 1986:195).
When studying the manuscripts containing Bach’s free compositions, one discovers that these works were written with a *plenum* registration in mind. In the autograph of the Prelude and Fugue in B minor, BWV 544, and the *Clavierübung III* print of the Prelude and Fugue in E flat major, BWV 552, one finds the words “*in Organo pleno*”. It is noteworthy that the secondary sources of many other free works also contain *plenum* indications; indications that were omitted in modern editions. The entire list of Bach’s free works with a *plenum* indication in at least one of these sources is as follows:

- Prelude and Fugue in G minor, BWV 535
- Prelude and Fugue in D minor (“Dorian”), BWV 538
- Fantasia and Fugue in G minor, BWV 542
- Prelude and Fugue in A minor, BWV 543
- Prelude and Fugue in B minor, BWV 544
- Prelude and Fugue in C major, BWV 545
- Prelude and Fugue in C minor BWV 546
- Prelude and Fugue in C major, BWV 547
- Prelude and Fugue in E minor (“Wedge”), BWV 548
- Prelude and Fugue in E-Flat major (“St. Anne”), BWV 552
- Prelude in A minor, BWV 569
- Fugue in G minor, BWV 578
- Passacaglia and Fugue in C minor, BWV 582
- Allabreve in D major, BWV 589 (Stauffer and May, 1986:196).

Because so many works can be linked with *plenum* indications, it is safe to assume that Bach followed the tradition of setting free works for the full organ, and that this registration would therefore also apply in the case where the designation is not given specifically.

A very interesting piece is the Passacaglia and Fugue in C minor, BWV 582. Unfortunately the original copy has been lost, but a copy of what seems to be a later or revised autograph is entitled *Passacaglio con Pedal pro Organo pleno*. This heading definitely proves that the *Passacaglia* was written for the organ and not the pedal
clavichord, as noted by Forkel and Schweitzer, and places it in the plenum category (Stauffer and May, 1986:197).

Except for the free organ works, certain types of chorale preludes were intended for plenum performance. These works were written in the manner of free organ compositions or in the style of vocal or instrumental genres that required a large and rich sound quality. When these works were marked pedaliter they seemed to require the full organ. When marked manualiter they probably required a slightly lighter combination, perhaps the plenum on a secondary manual. The first two types of plenum chorales to be discussed below were developed in the 17th century; whereas the third and the fourth were invented by Bach:

2.1.1 The Chorale Prelude

In the Baroque period one of the standard methods of improvising a chorale was to compose a fugue or fughetta on the chorale melody. Mattheson described the process in the following way:

As far as fugue playing is concerned, there are two types. The first type of fugue belongs to the actual working out of a chorale, in which case the fugue theme is drawn from the melody itself. The second type concerns the prelude or postlude, for which the fugue serves as a section or a conclusion. Here one is free to borrow or invent the theme as one whishes (Mattheson. Der vollkommene Cappelmeister:474 in Stauffer and May, 1986:197).

The main difference between the chorale fugue and the free fugue is the source of the soggetto. In a chorale fugue the composer derives the subject from the chorale melody. In the free fugue the subject is invented by the performer. Otherwise the two fugue types would be too much alike and both require a plenum registration. Examples of chorale fugues by Bach include: Wir glauben all' an einen Gott, BWV 680 (marked “in Organo pleno” in the original print of the Clavierübung III); Fuga sopra il Magnificat, BWV 733 (marked “pro Organo pleno” in various 18th century manuscripts); Fughetta super Dies sind die heil'gen zehn Gebot’, BWV 678; and Herr Christ, der ein'ge Gottes Sohn, Fughetta, BWV 698 (Stauffer and May, 1986:198).
2.1.2 Chorale Fantasias
The chorale fantasy resembles the free prelude or the free fantasia, therefore it is linked with a *plenum* registration. In many of these works, fragments of the chorale are given in the manual voices while the pedal brings out the complete melody as a cantus firmus. The following are some of Bach’s chorale fantasias:

- *Komm heiliger Geist, Herre Gott*, BWV 651 (marked “*in pro Organo pleno*” in Bach’s autograph)
- *Valet will ich dir geben*, BWV 736
- *Jesu, meine Freude*, BWV 713

2.1.3 Chorale Preludes that have a Tutti Instrumental Texture
During Bach’s Weimar years he transferred the instrumental writing of Corelli, Vivaldi and other Italian composers to the organ, and adopted their concise melodies, rhythms, strong harmonies and polyphonic textures. This change in Bach’s compositional style can be seen most clearly in his free works such as the Dorian Toccata in D minor, BWV 538/1, or the Prelude and Fugue in G major, BWV 541. However, many of the chorale preludes written at a later period in Cöthen and Leipzig, display the same type of writing. In the works where Bach imitates the style of a *tutti* ensemble, the heading *organum plenum* seems to be the proper registration. Examples include the following:

- *Komm, Gott Schöpfer, heiliger Geist*, BWV 667 (marked “*in Organo pleno*” in Bach’s autograph)
- Numerous chorales from the *Orgelbüchlein*, including *Vom Himmel hoch, da komm’ ich her*, BWV 606; *Wir Christenleut*, BWV 612; *Wer nur den lieben Gott last walten*, BWV 642 and others (Stauffer and May, 1986:198).

2.1.4 Stile Antico Chorale Preludes
During the last two decades of his life, Bach developed a new type of chorale prelude that was based on the *stile antico*, or the vocal style of the Renaissance. In these works Bach adopted the *a cappella* compositional style of Palestrina and transferred it to the organ. The result of this was a very unique kind of keyboard motet. Bach modelled the
stile antico chorale preludes on the sound of a large and rich vocal ensemble, thus it is understandable that he intended these works to be performed with a plenum registration. The best illustrations of this unusual style include the following works: Kyrie, Gott heiliger Geist, BWV 671 (marked “Cum Organo pleno” in the original print of Clavierübung III) and Aus tiefer Not, schrei ich zu Dir, BWV 686 (marked “in Organo pleno” in the original print of Clavierübung III). These four types of chorale preludes form part of the free works as compositions that are intended to be performed with a plenum registration (Stauffer and May, 1986:198).

2.2 Stops used in the Plenum

Bach did not record his views on the type of stops that form a plenum registration, but his contemporaries did. They suggested that the plenum did not include all the stops, but only a carefully chosen group of manual and pedal stops. The plenum originally referred to the full diapason chorus of the main manual (Goode, 1964:114). Matheson\(^1\) stated that the following stops belong to the plenum:

- Principals
- Sorduns
- Salicional or Salicets (“Weiden-Pfeiffen”)
- Rausch-Pfeiffen
- Octaves
- Quints
- Mixtures
- Scharfes (small mixtures with three ranks of pipes)
- Quintades
- Zimbels
- Nasats
- Terzians
- Sesquilteras

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\(^1\) Mattheson. Der vollkommene Capellmeister:467.
• Superoctaves
• Posaunen (in the pedal only). (Stauffer and May, 1986:199).

The *posaunen* were not used in the manuals because they rattled too much due to their pitch. However, when there is proper wind supply, they do sound extremely good in the pedal because of their depth of tone (Stauffer and May, 1986:199).

Adlung\(^1\) gave an even fuller description of the *plenum*. He advises the performer to take note of the fact that when choosing a *plenum* registration for the manual, one must keep in mind that the *plenum* requires stops which brighten the ensemble. The principals can be drawn together with all the Octaves, Quintes, *Terzes* and sounds best with mixed voices such as the *Terzian*, *Sesquitera*, Mixtures, *Scharfs*, *Cymbels* etc. If performers do not want to use such a strong combination, they may leave out any of these stops. However, if they desire a brighter *plenum*, they could draw the appropriate stops on a secondary manual and couple it to the main manual. Performers should also employ stops that add gravity to the *plenum* and for this purpose the following stops can be added:

• *Gedackt 8*, *Quintaton 8’* or *Quintaton 16’*
• *Quintaton 16’*
• *Gedackt 16’* or *Rohrflote 16’* (or a Bourdon of similar size according to what is available)
• *Rohrflote 8’*, Gemshorn 8’ etc. (Stauffer and May, 1986:199).

The same rules that apply to the manual *plenum* apply to the pedal *plenum* because the pedal should be strong sounding in order to be heard above the manual. The pedal *pl enum* requires more gravity that the manual *plenum*, but the performer should also add stops that brighten. To obtain gravity one could use the *Contrabass 32’*, *Subbass 16’*, *Gedackt 8’*, *Principal 32’* and *16’*, *Violon 16’* and the *Octave 8’*. These stops may

all be drawn together provided that there is sufficient wind supply (and especially if the pedal has its own bellows).

Sometimes the performer can use bright voices in the pedal, for example the Octave 4’ and 2’ and sometimes even Mixtures. If the organ does not have these stops one can add manual stops to the pedal by means of the coupler. If the pedal contains several bright ranks there is no need to use the coupler. The Posaune 32’, Posaune 16’, Trumpet 8’ as well as other reed stops can form part of the *plenum*. In most cases the Posaune 16’ is sufficient, especially in the execution of rapid passages where 16’ stops are more suitable than 32’ stops (Stauffer and May, 1986:199).

When performers of today select a *plenum* registration on the modern-day organ, they must guard against a stop combination that produces an extremely loud and thick sound, far removed from the sound quality of a typical Bach organ. This topic will be discussed later in this chapter.

### 2.3 The Remaining Voices

In the second category of registration we find all the non-*plenum* possibilities. These registrations sounded best through the use of secondary manuals and also with softer but carefully selected stops. This registration system included an almost limited variety of flute, string and reed combinations, which could be used as a solo on two or more manuals, or as a small ensemble on one manual. The various registrational possibilities were used for *bicinia*, trios, chorale partitas, and chorale preludes of many different types, including the following:

- Duets
- Trios
- Canons
- Pieces in which the melody is embellished
- Pieces with a cantus firmus (Stauffer and May, 1986:200).

There are limited occasions where Bach’s contemporaries, Johann Gottfried Walther, Daniel Magnus Gronau, or Friedrich Kauffmann wrote specific registrations into the
manuscripts or prints of their chorale preludes. Such examples include Kauffmann’s *Harmonische Seelenlust musikalischer Gönner und Freunde* (Leipzig, 1733-1739), which include 98 chorale preludes written in a wide variety of styles and often with detailed suggestion for registration. These works give the performer a glimpse of the interesting way that stops were used in smaller combinations (Stauffer and May, 1986:201).

It is assumed that Bach was very imaginative in selecting colourful combinations, and that it was probably this skill that C.P.E. Bach spoke about when he stated that his father registered “in his own manner”. Like most of his contemporaries Bach did not leave instructions on which stops to select for non-*plenum* combinations. His personal copy of the *Schübler* Chorales, BWV 645-650, contained the pitches of stops to be used. In *Ein feste burg is unser Gott*, the *Orgelbüchlein* chorale *Gottes Sohn ist Kommen* (BWV 600), and the opening movement of the Concerto in D minor (BWV 596) he named exact stops. In other organ works he left the choice of registers to the performer who might have a very different organ at his disposal.

Once more national tradition plays a role in registration. French composers could write with a specific group of stops in mind, due to the fact that organs throughout the country contained the same stops. However, in Germany, the wide variety of organs made it impossible to adopt a particular registrational system; Bach’s decision to leave the matter of selecting stops for small combinations open seems perfectly understandable. Bach was very precise when it came to the question of performance on one or two manuals. Pieces that were to be performed on two manuals were marked “*a due Manuale*” or “*a 2 Claviere*”. Two-manual indications were not limited to Bach’s mature years when his notation became very precise. It appears throughout his life, from the earliest youth chorale to the *Schübler* transcriptions and the revisions of his “Great Eighteen Preludes” done in the last decade of his life (Stauffer and May, 1986:201-202).
In those works where the distribution of parts played on two manuals may cause confusion for the performer Bach often added further clarifications. *In Allein Gott in der Hoh sei Ehr*, BWV 663, the sub-heading “a 2. Clav.e Pedale, Canto fermo in Tenore” serves as an indication that the tenor is the voice that should be outlined on a secondary manual. The subtitle of the chorale Liebster Jesu wir sind hier (BWV 634), “in Canone all Quinta a s. Clav. & Ped.” indicates a performance on two manuals. Bach indicated that the upper two voices should be played on one manual, the alto and tenor on a second manual, and the bass on the pedal. While is it said that Bach allowed freedom in the choice of stops for all the non-*plenum* possibilities, it seems that he did not allow the same freedom with regards to the use of one or two manuals. When he intended a works to be performed on two manuals, he indicated it by means of a subtitle to alert the performer (Stauffer and May, 1986:203).

### 2.4 Changes Of Manual In Bach’s Free Works

Eighteenth-century treatises are of little help on the question of manual changes in free works because they do not discuss the topic. However, the performer can obtain certain clues from the manuscripts of Bach’s compositions. In the free organ works there are only two pieces where Bach indicated manual changes: The “Dorian” Toccata in D minor BWV 538/1 and the Prelude and Fugue in E-Flat Major, BWV 552/1. In the E-Flat major Prelude Bach used the words *piano* and *forte* to indicate the manual change. He used this method in the Italian Concerto, BWV 971, the French Overture, BWV 831 and also in other works for two manuals. The performer should take note that the forte and piano indications do not necessarily imply a strong contrast in dynamics, but rather indicate a change from a main manual (usually the *Hauptwerk* on an organ and on a harpsichord usually the lower manual) to a secondary manual (Stauffer and May, 1986:203).

In the “Dorian” Toccata Bach used a more sophisticated notation system. First, he used the words *Positiv* and *Oberwerk* as indications where manual changes should take place. Secondly, he indicated the precise point of change through the beaming of individual notes in places where change of manual could confuse the performer. For
example, in bar 13 of the Toccata, the broken beaming of the upper voice clearly indicates that the change from Oberwerk to Positiv needs to take place between the first and the second 16\textsuperscript{th} notes of the third beat. Finally, Bach often made use of braces at the points of change to indicate the exact place where those parts should be played on a new manual (Stauffer and May, 1986:203).

It seems that Bach developed this precise system of manual-change notation even further in his Weimar concerto transcriptions, BWV 592-596. In his earliest surviving works dating from before 1707, one can see the use of broken beamings and brackets to indicate a change of manual. By using these indications, Bach did not leave anything to chance with regards to manual change. Not one of Bach’s other free works have manual-change indications in their texts. Is it possible that Bach intended all his free compositions to be performed on one manual, organum plenum, with the “Dorian” Toccata and the Prelude in E-Flat as exceptions to the rule? There exists no evidence to prove the contrary (Stauffer and May, 1986:205).

The “Dorian” Toccata, BWV 538/1 and the Prelude in E-Flat, BWV 552/1 seems to have been very special free works. They were modeled on the concerto transcription technique and required two manuals. The rest of Bach’s free works seems to be more conventional and required only one manual. In summary then: the main factor in Bach’s registrational practice is the distinction between organum plenum and smaller non-plenum combinations. Free works (Preludes and Fugues, Fantasias, certain types of Chorale preludes) were intended to be performed organum plenum, and chorale preludes, chorale partitas, trios and duos were intended to be performed with a non-plenum registration (Stauffer and May, 1986:207).

Bach propagated the principal of legato playing, regarded today as the essence of good organ playing. He did not have any experience of the Venetian shutter swell, introduced at that time in England, where Handel took great interest in the device. In Germany this device was opposed for a very long time. As already mentioned earlier in this treatise, the organ works of Bach needs to be registered with the utmost care. To be able to
select suitable registration, the performer should have a **thorough knowledge** of the stops contained in the organs known to Bach. The next few pages will contain lists and descriptions of the stops in Bach’s organs.

**2.5 Stops in Bach’s organs, found in the *Eighth Music Book containing the organ of Bach* by Sumner, 1956:116-126.**

*Barem* (Old German, bar – a song): A flue stop containing covered pipes, mostly of 16’ or 8’ pitch. The tone produced was one of a pure singing quality, almost identical to the sound quality of the *Stillgedackt*.

*Bärpfeife* (German: Bear-pipe)
An old regal stop that produced a gruff tone. Stops of the 17th century and afterwards with the same name, were sometimes flue stops with a flute-like quality.

*Bauernflöte* (German: Peasant-flute)
A closed small-scaled stop, found in German organs usually of 8’, 4’, 2’ and 1’ pitch

*Blockflöte* (German: Recorder)
A metal flue stop of large scale usually of 4’ pitch. It has also been found in 16’, 8’ and 2’ pitches. The pipes could be open or stopped, cylindrical or conical in form. This was a very popular stop in the English organs of Father Smith at the time of Bach’s birth.

*Bombarde* (French)
A reed stop that usually had a 16’ pitch with a powerful tone. However, the power of this stop in Bach’s time was much less than what we expect from its name.

*Bordun* (German: Bourdon)
A closed manual stop usually made of metal, large-scaled with a flute-like tone.

*Chalumeau* (French) / *Schalmei* (German)
A reed stop with a soft tone intended to imitate the sound of the shawm or schalmei, a precursor of the clarinet. It could be found in 16', 8' and 4' pitches. It was of great help on both the manual and pedal, due to its ability to blend with a flue chorus and it also had interesting solo possibilities, alone as well as in combination.

**Cilinderquinte**
A quint (2 2/3’) stop containing small-scaled cylindrical tubes.

**Coppel (Koppel) 1**
A mechanism that connects one manual with another or a manual with the pedals.

**Coppel (Koppel) 2**
A neutral-toned flue stop of 8' pitch, and was used as a fundamental tone to join other tones together or enriching the ensemble by the addition of ranks of mutations harmonics. The pipes were normally spindle-shaped with inverted cones at the top.

**Cornet**
A stop that contained wide-scaled pipes, each individual pipe had a dull tone. The separate ranks being 8’, 4’, 2 2/3’ and 1 1/3’. The tone was of reed-like quality. Usually, there were no breaks in the ranks, but occasionally the bass of the stop was made of fewer ranks. Baroque cornets were made of metal that contained high levels of lead to secure a dull flute-like tone in each rank. Cornet stops of quiet intonation were made for the positiv sections of the instruments, in addition to the loud cornets of the Hauptwerk.

**Cornettin.** Cornet bass (Corneto)
A reed stop of 4’ or 2’, usually found on the pedal organ (as on the Arnstadt Organ) and could be used in pedal solos, as well as brightening the pedal tone. The pipes were small-scaled with broad, thin tongues which were of inverted conical shape.

**Cremona**
It is a corruption of the Krummhorn and has no relation to the Cremona violin.
**Cymbel, Zymbel** (German)
A mixture of high pitch usually breaking at every octave. The ranks should be alternatively octave –and fifth-sounding.

**Cymbelstern** (German: Cymbel-star)
One or more large wooden gilded “stars” situated in a prominent part of the organ case. When the stop was drawn, the wind motor caused the star to turn and small bells at the points were sounded one after the other. The bells could sound at tonic and dominant; tonic, mediant, dominant, tonic; or the notes of the scale.

**Diapason** (Greek- from the first to the last note)
A moderate-scaled open metal stop of 8’ pitch, seldom found in German organs (mostly found on English organs)

**Dulzian.** (German: Dulcian)
A reed stop of 8’ or 16’ tone and could be found on both manuals and pedals. The tone was not unlike that of the bassoon, but was more sweet sounding and broader in tone. Sometimes flue-pipes were used, of a cylindrical or outward-tapering quality.

**Fagotto** (Italian)
A reed stop of bassoon tone and a mezzoforte sound quality. The tubes are thin and conically shaped. The stop can be used on manuals and pedals and is normally found in 16’ and 8’ pitch.

**Feldpfeife** (German: Military Flute)
An open flue stop with a piercing tone. The pipes have high mouths and the pitch is normally 4’, 2’, or 1’. This stop was never a favourite, since “the tone is intense and assertive” (Sumner, 1956:118).

**Flachflöte** (German: “Flat” Flute)
These pipes were originally made of wood, were flat in form and the mouth was on a wide side. In Bach’s lifetime, this stop was normally made of metal pipes like that of the gemshorn or they were spindle shaped. The pitch was usually 4’ and had a flute character which blended well with other stops.

**Flageolet**
An open metal stop usually of 2’ or 1’ pitch with a clear and piercing tone.

**Fugara** (German: Hirtenflöte; a shepherd’s pipe with reed-like intonation)
It is a flue stop of wood or metal, usually of 2’ or 1’ pitch. The tone is a combination of string and horn, although sometimes it might have a gamba-tone.

**Gedackt** (German: Gedeckt, Gedackt)
A stopped flue pipe made of wood or metal. (Gedackts in North German organs were usually made of metal). The stop is similar to the old English stopped diapason, but is normally of smaller scale and the odd harmonics are more prominent in its voice.

**Gedackte Italienische Quinte** (German)
It is a fifth-sounding rank made of stopped pipes. In Bach’s lifetime the so-called Italian stops were wide-scaled and blended well with other stops of a similar character (16th and early 17th –century Italian stops were probably small-scaled).

**Gemshorn** (literally meaning “Goat” or chamois horn)
An open metal stop in 4’ or 2’ (not often in 8’ pitch) pitches.

**Glockenspiel** (German: bell music)
It was originally a short-compass set of tuned and dish-shaped bells, spiral rods, bars or tubes made out of bell-metal and sounded by hammers. Arp Schnitger sometimes made this stop. It was usually made at Christmas, New Year and at Easter festivals. The bells sounded at 4’ pitch.
**Grob** *(Gros,Grosse)*, e.g. Grobgedackt
A covered flue-stop of large scale.

**Grosse-Hall Quinta**
A large-scale powerful Quinta of 5 1/3' pitch.

**Helle-Cymbel** *(German: Helle = Brightly)*
A cymbel mixture with very bright tone quality usually breaking at every octave.

**Hohlflöte** *(German: hollow)*
A hollow-toned flute made with open wooden pipes.

**Klein** *(German: small)*
This prefix indicates that the stop is of 4' pitch or that the pipes are small-scaled.

**Krummhorn, Krumbhorn** *(German: crooked or bent horn; French: *Cromorne)*
A soft sounding reed stop with 8' or 4' pitch. The tubes are of cylindrical shape and the sound is similar to that of the clarinet. The old orchestral krummhorn was bent at the lower end in the form of a half circle and had 6 finger holes.

**Largo** *(Larigot)* *(French:* *L’arigot* = flageolet)*
An important soft toned mutation stop of 1 1/3' pitch that blends well with other stops for a quiet sound quality.

**Lieblich Gedackt** *(German: lovely, covered)*
A stopped wood or metal flue stop of 8' pitch with beautiful sound quality.
It is usually smaller-scaled than that of the *Gedackt*.

**Mixtur** *(Mixture)*
Mixtures originally consisted out of the high-pitched ranks of octave and fifth-sounding pipes which remained when pipe-ranks of duller pitch were given individual control by
the use of the slider chest. The true organ mixture is made up only of octave and fifth sounding ranks. They add brightness to the selected combination of stops.

**Mutation** (Latin: change)

It is a stop which changes the note, thus not a unison, sub-octave or octave-sounding stop. A 2’ stop is strictly speaking not a mutation, but a *nazard* 2 2/3’ sounds G when C is played, or a tierce which sounds E when C is played, is a mutation.

**Nachthorn** (German) (French: *nasard, nazarde*) 2 2/3’ pitch.

An important mutation stop with a flute tone giving the twelfth above the note played. It is useful in combination and blends well with other stops of duller tone quality.

**Octav** (Octave)

The correct name for the octave to any principal rank, whatever the pitch may be, i.e. the octave to a Principal would be a 4’ rank, etc.

**Pauke**

Usually a kettle drum. Occasionally it was sounded through the use of mechanical action by an “angel” in the organ case.

**Praestant** (Latin: Prae-stans - standing before or in front)

“An open metal (octav) stop which, strictly speaking, stood in front, i.e. in the case, with the organ Principal (*prinzipal*)” (Sumner, 1956:121).

**Prinzipal or Principal**

An open metal stop which indicated the pitch “of the division of the organ of which it was the “unison” representative of the open-flue “male-chorus” (Sumner, 1956:121). It occurred in 32’, 16’ (Pedal, *Hauptwerk*), 8’ (*Hauptwerk*, *Positive*), 4’ (*Positiv, Brustwerk*, *Oberwerk*) pitches.

**Posaune** (German)
A reed stop usually of 16’ pitch on the pedals and 8’ pitch on the manuals. It is intended to imitate the sound of a trombone as far as possible. In organs of the 17th and 18th century, the lower wind pressure did not permit the loudness which is characteristic to the stop on modern-day organs. However, the old *Posaune* was normally the loudest stop on the organ and its tone may be described as “thin trumpet.” The *Posaune* stops made by Silbermann had more depth of tone than their North German counterparts.

**Querflöte** (German Traverse– or Cross-Flute)
A small-scaled stop intended to imitate the sound of the orchestral flute. It is made up of wood or metal pipes.

**Quinta decima** (Latin: A fifteenth)
A 2’ stop with a quiet flute or “principal” tone.

**Quintadena**
The pipes are of closed metal and the twelfth comes out very clearly in the tone. It is antique and was known at the end of the 15th century. It is usually found in 8’ and 4’ pitches.

**Quintaten** (Latin: *Quintam tenentes* – holding the fifth)
The stop is not unlike the above-mentioned stop. It is usually found in 8’ and 4’ pitches.

**Ranket** (*Racket, Rankett*)
An old regal stop in which the reeds had short resonators. The tone is similar to a course harmonium and was intended to imitate the tone of the ranket, a 16th century wind instrument.

**Rauschpfeife** (*Rauschflöte*) (German: rustling pipe or flute)
A compound stop containing open metal flute ranks of 2’ and 1 1/3’ pitch respectively.

**Rauschquint** (German: rustling quint)
An open metal compound stop consisting out of two ranks with pitches of 2 2/3’ and 2’ respectively. The intervals between the ranks were a 4th and because of this the stop was called *Quarta* or more recently *Quartane*. The tone is a quiet mixture, adding a gentle rustling to the flue tone, distinct from the reed-like tone produced by the *sesquiltera*.

*Regal* (Latin: *regulo*: to regulate)
An old reed stop with small resonators of different shapes fitted to qualify the tones of vibrating tongues. Occasionally regals were named after the shapes of the resonators, i.e. *Apfel-, knop (kop), trichter*-regals (apple, knob, or head, funnel regals respectively). Regals were also named according to their tones: *singend, harfen, geigen, gedampt*-regals (Singing, harp, violin and subdued regals respectively). The regal was also a small portable or portative reed organ used in the early 1500’s. Flue-pipe portatives were developed at an earlier date. When regals were in tune, they blended well with combinations of flue tones and they were often used to accompany singing.

*Rohrflöte* (German: flute with tubes)
A wide-scaled metal stop producing a clear, singing tone, usually of 8’ pitch.

*Salicional* (Latin: *Salix*: a willow)
A very narrow-scaled open metal 8’ flue stop producing a soft tone with a slight string or reed quality.

*Schalmei, Schallmey* (German)
See Chalumeau.

*Scharf*
A sharp mixture producing a brilliant tone. This stop frequently contains a high-pitched 3rd sounding rank, giving it a piercing quality. A four rank *scharf* might start with a 15th, 17th, 19th and 22nd.
**Schweizer Flöte** (German: Swiss Flute)
An open metal stop usually of 8’, 4’, 2’, or 1’ pitch. It is a hybrid between string and flute tone.

**Sedecima** (Latin abbreviation)
A stop with 17th or tierce 1 1/3' pitch.

**Sertin** (Serpent?)
A reed stop of 8’, or 16’ pitch which was intended to imitate the old orchestral instrument which produced a tone between those of the bassoon and the trumpet, and was made with a peculiar “wriggling” shape. It belonged to the cornett family, where the cornett or zink was the alto or tenor, the sertin the bass, and the cornettino (corneto) played the soprano part. The name could also imply the Sourdine – a soft reed.

**Sesquialtera**
A compound stop made up out of two ranks: the 12th 2 2/3’ and the tierce 1 3/5’ give the interval of a 6th. Sometimes other ranks were added. The sesquialtera is not a part of the “male” principal choruses and gives a reed-like quality rather than brilliance to the other flue tones. A “cornet” tone can be produced if one adds further large-scaled ranks of harmonics to the sesquialtera.

**Sifflöte, Sifflet** (German: whistle flute)
A small open metal flute stop of medium scale usually of 2’ or 1’ pitch.

**Sperrventil** (German: a wind block)
A valve that shuts off the wind from a certain wind-chest.

**Spielpfeiffe**
It literally means musical pipe, but it is possibly a corruption of Spillpfeiffe.

**Spillflöte, Spillpfeiffe** (German: Spindel Flute)
An 8’, 4’, or 2’ stop made up of spindle-shaped metal flue pipes. The sound is characterized by its distinctive and beautiful tone with characteristic harmonics. Nowadays it is sometimes made in America.

**Spitzflöte** (German: Spire Flute)
An open metal stop with 8’, 4’, or 2’ pitch with a tapering pipe similar to that of the gemshorn. The tone is bright with a trace of a 17th in its voice giving it a slightly piercing quality. It may be used separately or in combination.

**Stillgedeckt** *(Still-gedackt)* (German: literally a covered stop with a quiet tone)
A soft *lieblich gedackt* which is usually made of wood, and is of 8’ or 4’ pitch.

**Tertia**
A term used to describe a tierce or *terz* but it could also be a corruption of tertian or *terzian*.

**Tertian, Terzian**
A compound stop made up of two ranks consisting out of open metal pipes of medium scale which stand at the interval of a minor 3rd apart, giving the stop its name. The tertian may also be regarded as an inversion of the *sesquialtera*. When the stop belongs to the 8’ harmonic series it is made up of ranks of 1 3/5’ and 1 1/3’ pitch. The stop adds a reed-like quality to the other flue combinations rather than brilliance. It may be used on its own or in combination.

**Terz, Tierce, Tritonus**
An important mutation stop of 1 1/3’ pitch, in the 8’ harmonic series; or 3 1/5’ pitch when part of the 16’ series. It is a metal stop of moderate scale and sometimes the tone is similar to that of the gemshorn. It adds a reed-like tone to the other flue tones.

**Traversa**
A traverse flute
**Tremulant**
A mechanical device causing a wavering sound in the organ tone due to interference with the wind supply “in a cyclic manner” (Sumner, 1956:125). Two types of Tremulant were found in old organs: those that caused a gentle hovering of tone, called *Schwebung* in German. The other tremulant produced the opposite sound effect because it depended for its action on “lost wind” and the tone was practically shut off during each cycle. In Bach’s lifetime some of the tremulants were adjustable and others gave compound beats in triple time. The Tremulant is an antique device, very popular in the 16th and 17th centuries.

**Trichter Regal**
A regal (reed) stop containing short funnel-shaped resonators.

**Trommel**
A drum with mechanical action

**Trommet, Trompete, Tromete**, etc. (German: a trumpet)
A reed stop with long and conical resonators, producing a mezzo forte or forte tone. These stops were usually of 8’ or 16’ pitch. 17th and 18th century trumpets were not so powerful like modern-day examples.

**Untersatz** (German: Sitting under, i.e. foundation)
A 32’ pedal stop that is usually made of stopped wooden pipes, placed on a separate chest on/near the floor. Nowadays this stop is called a sub-bourdon.

**Ventile** (Ventil)
Like a Sperrventil

**Vigesima Nona** (Derived from Latin)
A 19th or larigot 1 1/3’ sometimes given as 1’ in pitch.
**Viol di (da) Gamba** (Italian)
A string stop with a broad-tone which was intended to imitate the sound of the viol. In Bach’s time this stop was slow to speak and needed the help of another flue stop, such as a *coppel*.

**Vogelgesang** (German: Bird-song)
It consisted of one or more open metal small-scaled pipes, bent round so that the open ends could go below the surface of a pot of water. The pot had to be filled with water to “maintain the bird in song” (Sumner, 1956:126).

**Violon** (Violone)
An open flue stop, normally of 16’ pitch, of small or medium scale, made of wood or metal. When this stop is made properly, it has a certain firm sound quality intended to imitate the sound of the double-bass.

**Vox Humana**
This stop belongs to the regal or “schnarrwerk” family. In Bach’s time (and before this) different shapes of resonator tubes were used to imitate a number of vowel sounds.

**Waldflöte** (German: Forrest flute)
An open, large-scaled flute made of wood or metal, normally found in 8’ or 4’ pitch, and less frequently in 2’ and 1’ pitch.

**Waldhorn** (German: forest or hunting horn)
An 8’ and 4’ (more recently 16’) reed stop with a smooth tone. Many older stops of this type had a sound quality similar to that of the clarinet (Sumner, 1956:116-126).

2.6 **Registration of Bach’s Works on the Modern-Day Organ**
Our modern-day organs have a wide variety of registration possibilities, including the use of the swell pedal for gradual crescendo’s and diminuendo’s. However, in the
search to enhance virtuosity, modern organs lost the old organ tone described as full and rich without being shrill or muddy. Since the tone is the most important thing, the modern organs may not be so ideal for Bach playing. Schweitzer (1945:296) states that the stops on modern day organs are all voiced too loudly or too softly. If the performer adds all the diapasons together with the mixtures, or adds reeds, a harsh and even unbearable tone is produced. Other secondary manuals are usually weak in comparison to the Great organ and often lack the necessary mixtures and 4’ stops. The Pedal division of the modern organ usually contains stops that are too harsh or sometimes dull in tone colour, aside from being poor in mixtures and 4’ stops. The most problems occur because of the change in disposition of the organs and the relation between the diapasons and the mixtures having been changed to the detriment of the latter, and also because of the strong bellows of the modern organ (Schweitzer 1945:296).

In the search for strength of tone, beauty and richness of sound, dependent upon the harmonious blending of ideally voiced stops, were lost. The organs built by Silbermann were some of the most ideal instruments for the performance of Bach’s works. It is said that the tone produced by the diapasons and mixtures was so rich and intense, that the performer could keep the registration the same throughout the prelude or fugue. On such an organ, the inner parts and the pedal could be heard clearly. On the modern organ the inner parts are often confused and the pedal struggles to produce a clear line because most modern organs lack mixtures and 4’ stops in the pedal division. The organs built by Walker between 1860 and 1875 are said to be better Bach organs than the modern instruments (Schweitzer, 1945:296-297).

Performers should keep in mind that when performing the organ works of Bach, they are busy with a transcription because the disposition of the modern organ is very different from the organ of ca.1685-1750. Organs in Bach’s lifetime were mostly equipped with tracker action (heavier to play on). The modern-day two-manual organ found in most churches (even some three-manual organs) has electric or pneumatic action (easier to play). The organs known to Bach were voiced differently in the sense
that the sound was full and rich without being shrill or thick. Performers should therefore select the *plenum* with care when playing Bach and should not select too many stops of the same pitch. The suggested *plenum* registration for a Bach prelude and fugue can consist of the following:

**On a two-manual organ:**

**Great organ:**
Open Diapason 8'
Röhrflute 8’
Principal 4’
Octave 2’ (or Fifteenth 2’)
Mixture

**Pedal**
Open Diapason 16’
¹Trumpet 8’
Subbass 8
Bassflute 8’

(This list is a suggested *plenum* registration by the researcher).

**On a large three-manual organ:**

**Great**
Open Diapason 8’
Röhrflote 8’
Octave 4’
Octave 2’
Mixture IV-V 1/1/3’
**Coupler:** Choir to Great

**Choir**
Stopped Diapason 8’

¹ If there are no reeds in the pedal but one of the secondary manuals contain a sufficient reed stop, it may be coupled to the pedal.
Octave 4’
Octave 2’
**Pedal**
Open Diapason 16’
Trombone 16’
Sub-bass 8’
Bassflute 8’
**Coupler**: Choir to Pedal (The registration is suggested by the researcher).

3. RHYTHM AND TEMPO IN BACH’S ORGAN WORKS

Robert Donington (1960:11) states that the right tempo is always relative and it is almost certain that Bach regarded tempo as the performer’s responsibility. The following is a quote from a manuscript entitled “Instructions and rules for the playing of a Thorough-Bass . . . by master John Sebastian Bach, Royal Court Composer . . ., for the use of his scholars in Music. 1738.” The manuscript bares the handwriting of one of Bach’s students, Johann Peter Kellner, and there is evidence that it was written down through dictation, either in this particular copy or in the previous original one. Some of the music examples in this manuscript are incorrect, but the following quote serves as a summary of Bach’s teaching:

**Of time or measurement:**

Of this much need not here be said, for it is presupposed that a person wishing to learn figured-bass will not only have learnt the notes but also the intervals before doing so, whether by previous practice of music or from some other cause, and also the differences of time. For no one can inculcate a knowledge of time all at once. This must, however, be noticed, that in the present day one single kind of time is indicated in two ways, thus C, 2; the second way being used by the French in pieces that are to be played quickly or briskly, and the Germans and Italians adopting it from the French. But the Germans and abide for the most part by the first method, and adopt a slow time. If the piece is to be played fast the
composer expressly adds Allegro or Presto to it; if slowly, the pace is indicated by the word Adagio or Lento.¹

The above quote is the only information regarding tempo that Bach left us. There are no music examples, systematic exposition of time signatures, no attempts to grade the speed or explain the time-words used in the treatise. All we have is a “warning” that “a knowledge of time” is difficult to learn and that the time signatures C and 2 eventually came to mean one kind of time. J.S. Bach did not see the need to leave detailed lists of instructions because tempo cannot be “tied down to rules and measurements” (Donington, 1960:12).

Mozart and Wagner insisted on the importance of “hitting off the tempo”. Beethoven made frequent use of Maelzel’s metronome and sometimes became confused by his metronome markings when he returned to them at some later stage, thinking that his metronome must be faulty. This serves as a clue in solving the mystery in which tempo is regarded as very important, but nowhere can it be defined or measured satisfactorily. “The clue is that tempo is itself not a fixed quantity” (Donington, 1960:12).

The correct tempo for any given piece is the tempo that is most suited to it, that “fits” the music best in the same way that the “hand fits the glove” (Donington, 1960:13). The interpretation of the piece is given by the performer. We should note that just as no two people’s hands are of the same size, two people’s interpretations will naturally be different in mood. An interpretation can be seen as a combination of the views of the composer and the performer. Someone who is in “fundamental sympathy” with the music, will be able to enrich the performance with his or her own personality (Donington, 1960:12).

There are no two performers with identical personalities and not even two performances by the same person will be identical. This fact applies to all interpretation and was as

clear in Bach’s day as it is today. It may be confirmed from one of Bach’s contemporaries, Quantz, who was one of the greatest teachers of Bach’s time and had a profound influence on him. The following quote sheds some light on the matter:

It would be too long and at times impossible, to give demonstrative proofs on matters which nearly always look only to taste . . . Some like what is majestic and lively, and others what is tender and gay . . . one is not always in the same mood (Quantz, J. 1752. “Preface and XVIII” in Essay: 6-7 in Donington, 1960:13).

In the same way that mood varies, so does the tempo which suits a certain occasion. An absolute correct tempo for any given piece of music does not exist, because the circumstances under which the musical performance takes place may vary, causing the tempo to no longer fit that particular circumstance. This explains Beethoven’s confusion regarding his own metronome markings: he forgot that the tempo he thought to be right on one occasion was not suited to another occasion (Donington, 1960:13).

The main thing about tempo that every musician has to learn, is that the correct tempo is a relative and not an absolute quantity (Donington, 1960:13). Metronome markings should not be ignored, because they give an accurate tempo indication. However, they can never make the final decision regarding the tempo of any given piece, but they can give useful hints and thus serve only as a guideline in choosing a suitable tempo (Donington, 1960:13).

This may be the reason why Bach and his contemporaries made no use of metronomes. Bach knew that choosing the right tempo comes down to being the performer’s responsibility. There are three other factors influencing the performer’s choice of tempo, namely:

- Mood
- Acoustics
- Knowledge to interpret the few clues left to us by Bach.
3.1 Mood as a factor in establishing the tempo
Humans experience many different shifts of mood to such an extent that sometimes when we find ourselves to be in a particular mood, it is difficult to believe that we ever were in a different mood, or will be in another. This fact is very important because it determines our musical preferences as well as our interpretations. The music in which we express our moods is in itself able to show “many different faces to the world” (Donington, 1960:14).

It is possible that “shallow” music, for example the music of Tin Pan Alley, have only one meaning and that is not of serious interest. The opposite of that would be the great classics which can be interpreted in a number of different ways. Donington (1960:14) warns that this variety of interpretation could be abused, but at the same time it enables different performers to highlight certain aspects of the music not yet experienced before. It is because of this that the so-called classics can be played and listened to over and over again; and it is only a “dull interpreter” who cannot experience anything new in them (Donington, 1960:14).

3.2 Acoustics as a factor in tempo choice
The sound in an enclosed space is partly absorbed and partly reflected. The reflected part may be reflected more than once. The reason for this is that the sound reaches the ear via a longer route than sound that reaches us in a direct line. The reflected sound arrives at the ear at different times, thus later than direct sound. This can lead to confusion which can become very problematic in buildings with excessive resonance, in other words, reverberation (Donington, 1960:15).

All musicians, in particular organists, are aware of how different buildings (churches) vary in reverberation. It should be noted that reverberation is not in itself something negative, because too little resonance is as undesirable as too much. In a building with too little reverberation, every sound is heard with crystal clarity. The opposite is true of a building with too much reverberation where the music can become confused because every sound is reflected more than once and heard several times before its echoes die
out. In the first example the music sounds very dry and in the second example, it becomes too obscure. The sound in an enclosed space builds up energy much faster than it is absorbed. The build-up takes longer in an unusually absorptive building and this gives the performer a sense of “ease and well-being” (Donington, 1960:15).

The ideal reverberation time between the sound source and the fading away of its last echoes ranges from about one second in a small building to almost two seconds in a large building. Where these conditions exist it is not necessary for the performer to modify his natural tempo choice to suit the acoustics of that particular building. In buildings where these conditions do not exist, the performer will have to adapt his tempo to the acoustic situation of the site (Donington, 1960:15).

In buildings where the reverberation time is shorter than the ideal, the performer may adapt a quicker tempo to overcome a dry sound effect. In the case of buildings with a reverberation time that is longer than the ideal, a slower tempo can help to overcome confusion. Donington (1960:16) states that “any organist worth his salt” will be able to adapt not only his tempo, but also his dynamics, registration, articulation and phrasing to the building and the particular organ in question. Such a tempo choice will get over best to the audience and will also be the most comfortable tempo for the performer (Donington, 1960:16).

3.3 Knowledge Of How To Interpret The Clues Left To Us By Bach
Any hints that we can derive from the original time-signatures of Bach, as well as other tempo indications or from instructions in the musical treatises of Bach’s time can be seen as guidelines. These time-signatures and other instructions were examined and proved to be applied rather casually and inconsistently. Contemporary instructions were proved to be very contradictory with one another. This so-called casual inconsistency is characteristic of the methods of writing down music which were still used in Bach’s time. The composers of Bach’s time had many different views on many details of performance, which they left quite vague in their notation. The reason for this had nothing to do with laziness or incompetence on the side of the composer, but it was
done deliberately so that the performer could act out his own individualism and musicianship, as applied to musical interpretation (Donington, 1960:16).

The time of Bach was one in which the filling of keyboard accompaniments, as well as much of the ornamental figuration of the melody in most slow movements, were more or less improvised by the performer. The composers of Bach’s time trusted the performers with as much as possible which encouraged “spontaneous musicianship” (Donington, 1960:17).

Because composers trusted in performers’ musicianship, it is not surprising that Bach often did not see the need to write a time word such as allegro or adagio at the heading of a piece, nor that his use of time-signatures often varied in a single piece of music. We have very few clues on how Bach chose his tempos, but the following notice contributed to a musical periodical shortly after Bach’s death by his son C.P.E. Bach and Agricola serve to partly clarify this mystery:

“J.S. Bach was very accurate in his conducting and very sure of his tempo which he usually took very lively.”

Although Bach’s contemporaries interpreted his tempo choice as lively, this fact should not be exaggerated. We do not know what Bach perceived as lively and somewhat slower. It is of great importance to know that we do not have to feel inhibited to play Bach with vivacity and brilliance where the music implies such an interpretation. However, we still have to draw on our own judgment and musicianship when interpreting the organ works of Bach.

3.4 Time Signatures In J.S. Bach’s Music
Donington (1960:19) states that the time signatures known to us today, are what he calls the “relics” of an abandoned system. The music from the Baroque era inherited a notational system from the Renaissance that differed from its own system of notation. This was called the proportional system due to the fact that the time-values of the notes

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1 Mizler. “Monument of three late members of the society of musical science” in Musikalische Bibliothek. 5/3 in Donington, 1960:19.
in relation to one another were not constant but governed by highly complicated rules (Donington, 1960:19).

The dot is part of a number of supplementary signs used in the proportional system as an aid to enable the performer to correctly understand the composer’s written intentions. There were also other indications concerning time-values, such as the blackening of the note symbol or simply leaving it white. Apart from all of these indications, there were also a complicated series of signs which were placed at the beginning of the performer’s part, explaining to him what the proportions of his note-values “were supposed to bear to the note-values given to the identical note-symbols in the other parts” (Donington, 1960:20).

It is from the above-mentioned signs in which our time signatures had their origin. Examples from the proportional system include the following:

- Circles crossed with a line or a dot in the centre
- Circles with no stroke or dot
- Half circles to indicate sub-division of the time (the origin of common time, C)
- Half circles further divided by an upright stroke (the origin of 2/2 time)
- Half circles with so much as 2, 3 or more upright strokes, indicating further subdivision of the time.
- Various numerals, single or in combination, such as ¾ and 4/4, these signs were less self-explanatory (Donington, 1960:20).

It should be noted that the proportional system was taught largely through aural teaching. Notation was seen as a reminder rather than a full explanatory text. This system became the familiar notational system known to us today. The remaining difficulties are a result from the old system which did not just disappear, but left us with some inconsistencies. In Bach’s time, these inconsistencies largely pertained to the manner in which the music had been written down than the actual performance thereof (Donington, 1960:20-21).
The main point that the performer of today needs to understand with regards to the use of old-fashioned time signatures in Bach’s music is the fact that they had become obsolete by that time and were already obsolete for a certain period of time. In other words the system of circles, half-circles, crossed circles etc. was obsolete, due to the fact that the proportional system had entirely been abandoned in favour of the less complicated system of time signatures we know today (Donington, 1960:21).

How do we interpret the time signatures of J.S.Bach in practice? The performer should remember that tempo choice is not established by the notation, but from the different circumstances under which the musical performance takes place (mood), the acoustical circumstances and knowledge of the few clues regarding tempo which Bach left us with. The first two important common time signatures are C and 2/2. In any Baroque music, including Bach’s, these two time signatures are fundamentally interchangeable (Donington, 1960:23).

Bach used these two time signatures in a very casual manner. Sometimes he used C in one part and 2/2 in another part of the same work, where no practical differences exist or could have been implied. Although there is no fundamental difference between these two time signatures, 2/2 implies a faster time, to be understood as only “a very little faster”, or maybe considerably faster, than C (Donington, 1960:23).

A further tendency suggests that 2/2 refers to a rhythm of two beats in a bar as opposed to C’s four beats in a bar. The performer should note that these tendencies are at best only hints at a faster or slower time since we do not know exactly how much faster 2/2 was than C, or how much slower C was than 2/2. Some performers might even find it easier to think in terms of four beats in a bar when they play a passage in 2/2. Donington (1960:24) states that even in the most subtle phrasing the tendency to think in two or four comes down to the interpretation of each individual performer.

The tendency to think in two beats to a bar causes the music to sound lighter than the tendency to think in four beats to a bar. In many works of Bach, especially the fugues,
this touch of lightness in the rhythm, the articulation and the accentuation that forms part of the articulation can make a huge difference between a too heavy and rhythmically strict performance and a light and "soaring" performance (Donington, 1960:24).

Donington (1960:24) states that frequently in such cases as the above-mentioned one, Bach wrote 2/2 rather than C; especially in cases where the length of the bar is breve time (4 minims) as opposed to the semibreve (2 minims). The 4/4 time-signature (sometimes written only as 4) was commonly accepted as the equivalent of C, in the same way that 2/4 or 2 was regarded as the equivalent of 2/2 (in breve time 8/4 for C and 4/2 for 2/2). Bach stated that C is the same kind of time as 2. Both are duple time and the speed that they suggest, if they were being measured by a definite standard, is variable. The performer should take note of the fact that there were no standards; only tendencies (Donington, 1960:24-25).

The time signatures C and 2/2 caused much confusion amongst performers. The usage of 2 to indicate 2/2 was used by the French especially, whereas the use of 3 to indicate 3/2 or 3/4 was more generally used. All Baroque authors have different opinions regarding these logical and straight-forward signs, being based on numbers instead of the confusing proportional system consisting of circles and half-circles, with or without strokes (Donington, 1960:25).

Works in which the unit is a crotchet (3/4 or 6/4) have the tendency to move faster than those where the unit is a minim (3/2 or 6/2) and those where the unit is a quaver or a semi-quaver (3/8, 6/8, 3/16, 6/16) are even faster. This simple rule is not all that should be counted on, because there are many works with a quaver unit which move slower than one with a crotchet movement, etc. The tempo choice should thus not be derived from the time signatures but should be established by performers, by using their initiative (Donington, 1960:25).
Performers should take the responsibility when choosing the tempo, whether or not they have gained assistance from the time signatures indicated, or even when they have chosen to make decisions that contradict what is implied by the time signature (since time signatures can be misleading sometimes). They should then consider all possibilities and the more odd these possibilities seem, the more they must think them over before making a final tempo choice. Finally, performers must be confident enough to establish the tempo not from the time signature or any other notational detail, but from their own interpretation of the music.

3.4.1 Time Signatures In Bach’s Organ Music

The references in the following discussion are to the numbers of the complete Bach Organ Works of the Peters Edition.

The Chorale Prelude, Kyrie, Gott Vater in Ewigkeit BWV 669 (Vol. VII) is an example of a 2/2 time, and the performer can count four beats in a bar. This work can be compared to the E Major fugue, BWV 878 (No. IX) from WTC II, which has similar notation, tempo and rhythm. The effect of the breve time (2/2) in this case is to ensure that performers think of the breve as a compound of four minims instead of eight crotchets. In some Baroque music the usual notation really is a breve bar consisting of 8 crotchet beats, and sometimes the notation could be reduced to four minim beats (Donington, 1960:26).

A rhythm of two minims in a semibreve bar and one of four minims in a breve bar, are very similar. However, the difference will become apparent in a sensitive interpretation of the work. Other examples similar to the above-mentioned Chorale Prelude include the following:

- Christe, aller Welt Trost, BWV 670 (Vol. VII)
- Kyrie, Gott heiliger Geist, BWV 671 (Vol. VII)
- Aus tiefer Noth, BWV 686 (Vol. VI)

The tempi and rhythms of the above-mentioned works differ from each other (Donington, 1960:27).
The G Major Prelude and Fugue, BWV 550 (Vol. IV) is marked *Alla breve e staccato*. The music implies a brisk four-beat rhythm and the notation seems to be inappropriate. In the Chorale Prelude *Vater Unser im Himmelreich*, BWV 737, we find a breve bar marked with the very old-fashioned double-stroked C. The music implies that the performer should count two beats to a bar (2 semibreves) and not four, the music should be played moderately fast (Donington, 1960:27).

The Chorale Prelude *Ich hab’ mein Sach’ Gott heimgestellt*, BWV 707 (Vol. VI) is also an example of a moderately fast two beats in a bar. On the other hand, if we look at the G Major Fantasy for organ, BWV 572 (Vol.IV) there is a slow two-beat unit in a semibreve bar. The section following this is marked *lentement*, which has a slower crotchet beat, but it sounds faster because of the demi-semiquavers. In the *Duetto IV* from the *Clavierübung*, BWV 805, the semibreve bar marked $2/2$ actually refers to a brisk four and not two beats in a bar. In the second Organ Sonata, BWV 526 (Vol.1), the third movement has an exception to the stroked 2, which is regarded as equal in value to the stroked C, and suggests a quick two beats in a bar, suitable to the music (Donington, 1960:27).

In the Chorale Fugue *Allein Gott in der Hoeh’ sei Her*, BWV 716 (Vol.VI), the time signature is that of $3/2$, but the time is quite brisk. The second movement of the first Organ Sonata, BWV 525 (Vol.1) is marked *Adagio* in $12/8$ time, and the musical implication is that of a steady four beats in a bar. However, this is quite fast for an *Adagio*, the speed being indicative of a *Siciliano*. In triple time short notes mostly move slower than expected and long notes, faster (Donington, 1960:28).

There are also some examples where the notation is not only uninformative or somewhat misleading, but causes great confusion for performers. A very extreme example is the Chorale Prelude, *Herr Gott, nun schleuss’ den Himmel auf*, BWV 617 (Vol.V). The music consists of three staves; the top one is marked with the time signature C, the middle one with $C_{24/16}$, and the bottom one $C_{12/8}$. Donington
(1960:28) states that the resolution of this is quite simple. The middle line has a “sextalet” relationship whereas the bottom line has a “triplet” relationship to the top line. This type of notation is an example of the proportional notation system which survived into Bach’s day and also into today (Donington, 1960:28).

3.5 Words of Tempo

Time signatures do very little towards the performer deciding on a suitable tempo, and they do only a certain amount towards establishing rhythm. But there is also a system of words indicating the tempo, which rose to prominence during the 17th century, after the proportional system of notation became obsolete (Donington, 1960:30).

The origin of time words confirms the fact that the mood and the character of the music are the two factors which establish the tempo of any given piece of music. The most time words do not actually refer to speed at all but rather to atmosphere (which implies tempo). Examples include the following:

- Adagio means “at ease”
- Grave means “gravely”
- Allegro means “cheerful”.

It should be noted that it is the speed indication of these words which prevailed rather than if they were suited to the atmosphere or not; there are some tense adagios and allegros which are melancholy (Donington, 1960:30).

The views of Bach’s contemporaries on words of tempo, is summed up in the following paragraph:

Time is a various and undetermined thing. . . [There are] grave, adagio, largo, vivace, allegro, presto and sometimes prestissimo. The first expresses the slowest Movement, and the rest gradually quicker; but indeed they leave it altogether to practice to determine the precise Quantity. . . Movements of the same Name, as adagio or allegro, etc., are swifter in triple than in common time. . . the triple 3/2 is ordinarily adagio, sometimes vivace; the 3/4 is of any kind from adagio to allegro; the 3/8 is allegro, or vivace; the 6/4, 6/8, 9/8 are more frequently allegro; the 12/8 is sometimes adagio but oftener allegro. Yet after all
the allegro of one species of triple is a quicker Movement than that of another, so very uncertain these Things are. (Malcolm, A. 1731. A Treatise of Music:39. Edinburgh. In Donington, 1960:30).

The performer should note that this list of words is useful as a very general guide and that neither this nor any other list compiled in the Baroque era or in more recent times, can be depended upon as reliable (Donington, 1960:31).

Joachim Quantz, a contemporary of Bach, interpreted largo to be slower than adagio, and vivace as equal in value to allegro (Donington, 1960:30). Quantz attempted to give precision to the time words by using as a reference the speed of the human pulse (variable in itself). He did this by dividing the many time words into four groups and giving each group a tempo marking ranging from 160 for a crotchet, which is the fastest, to 40 for a quaver for the slowest. These tempo markings are only guidelines because they were used by composers not in four groups but rather in a “continuous gradation” (Donington, 1960:31).

Bach used only a few time words in his organ music. But even if many of his organ works do not contain any time words, these are not greatly missed since, if they are present, according to Quantz:

*... since many composers put these words more by habit than to characterise well the true movement of the pieces, and to assist the knowledge of their true time for those who render them, there are many cases where they cannot be used for guidance, and where it is necessary to divine the intention of the composer more from the content of the piece itself than from the word which is found at the head to indicate its movement (Donington, 1960:31-32)*

Quantz warns the performer against taking slow movements too slow and fast ones too fast and further states that an Allegro should always be controlled and the character of the music should be expressed; it is not just about playing fast. Tempo is not

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established through the use of a metronome, but through a performer’s musicianship (Donington, 1960:32).

The correct tempo for any given piece of music is a variable and fluctuating quantity (Donington, 1960:33). Many performers are not even aware that their tempos fluctuate within the duration of a single piece of music. It is this flexibility of tempo that is correct rather than the tendency to bind Baroque music to strict time. Flexibility of tempo is allowed in Bach’s music just as it is allowed in music of periods other than the Baroque. However, there are of course no strict rules pertaining to this matter (Donington, 1960:33).

Where there are a series of symmetrical sequences the music will always be performed with a moderate tempo that would be different to an expressive Sarabande, for example. The performer who believes that Bach’s music should be bound to strict time without any flexibility, has most definitely misunderstood this matter. The Italian organ virtuoso, Frescobaldi, made it perfectly clear in the 17th century that in what was at that time modern music:

. . .the time is taken now slowly, now quickly, and even held in the air, according to the expression of the music”; while in particular the “cadences” though written rapid, should be played very sustained; and as you approach nearer to the close of the passage or cadence, you should hold up the time more and more (Frescobaldi, G. 1614. “Preface” in *Toccate*. Rome. In Donington, 1960:33).

Thomas Mace in 1676 stated that the tempo should be “sometimes Faster, and sometimes slower, as we perceive the Nature of the Thing Requires” (Donington, 1960:33)¹. According to Jean Rousseau it is useless if performers just “keep time. . . without entering into the movement” (Donington, 1960:33-34)². Quantz stated that “the player must try to feel in himself not only the primary emotion “as suggested by “the word found in the beginning” (allegro, andante, adagio, etc.), “but all the others as they

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appear.” Quantz adds that “in most pieces there is a perpetual alternation of emotions” (Donington, 1960:34).

Throughout the Baroque period (and certainly in earlier periods) every good musician’s flexibility of tempo based on a natural ‘feeling’ for the music, was accepted as a part of normal expression (Donington, 1960:34). In practice however, flexibility becomes most evident at cadences. There are a number of places in music where the so-called “give and take” (rubato) occurs, but not all of them are cadences (Donington, 1960:34).

Cadences need to round off the musical passage similar to the way that a reader marks off the closing of a paragraph. It is this need of rounding off that Frescobaldi spoke of in the preface of his Toccatas, mentioned on the previous page. It is not necessary that every cadence should have a ritardando. In most Baroque pieces there are numerous cadences and not all of them should be underlined because this is likely to obscure the interpretation (Donington, 1960:34).

Amongst these many cadences, the performer will always feel, when considering the movement of the harmony, that there are some which carry greater weight than the others. These are the cadences which imply a pause or a musical thought. It is these particular cadences that need the ritardando described by Frescobaldi (Donington, 1960:34).

The above-mentioned cadences are the crucial points that make a Baroque piece sound at ease. The performer should be careful not to overdo the important cadences, functioning to punctuate the musical flow, because this would cause the music to become mechanical. This mechanical effect had become very common in ages past and still occurs frequently in the present day, characterizing Baroque music as “unfeeling” (Donington, 1960:34).

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Music from all periods, including the Baroque, should be played with feeling. We should not “romanticize” Bach by interpreting his music in the same way as Wagner or Elgar for example, because that would be the opposite extreme of unfeelingness. The performer should be able to respond in a sensitive manner to the “feeling which lies behind the orderly restraint of the great baroque composers”. Bach is in his own way also a romantic composer as we can see from his use of harmony (Donington, 1960:35).

The belief that Bach’s music should be bound to strict time can be dismissed due to the evidence rendered by his contemporaries as being unnecessary, as well as being out of character. The performer should take note that in the majority of the most important cadences, it is enough only to make a slight ritardando. All that is needed is that the performer acknowledges the existence of the cadence, it is not necessary to overdo it. It is said that Bach’s own organ performances were full of feeling, making quite an impression on his contemporaries (Donington, 1960:35).

3.6 Fluctuations of Tempo in Bach’s Organ Works
If he intended it at all, Bach indicated a definite change of tempo during a movement with a new time-word at the appropriate place. Examples include the following:

- Preludium et Fuga for Organ No. II in D Major, BWV 532 (Vol.IV) where the Alla breve term indicates a more brisk time with a rhythmic feeling of two beats in a bar.
- The Fantasy and Fugue in A minor for Organ, BWV 561 (Vol.IX) contains the word Presto at bar 12, Adagio at the end of bar 130 and four bars later the music returns to the Presto.

As a rule ritardandos and other variations of tempo are not indicated at all in the Baroque. Donington (1960:36) states that there is one Baroque practice which can lead to misunderstanding if its intentions are not clearly grasped. That is the use of ordinary time words to denote a definite change of tempo at the point where they appear, but where they actually function to indicate something more in the nature of a normal
ritardando (Donington, 1960:36). We may compare this practice to the use of $p$ followed by $f$ to indicate a crescendo from $p$ to $f$ (although not always) and $f$ followed by $p$ to indicate a diminuendo (Donington, 1960:36).

Performers should use their musical intelligence to guide them in interpreting the above mentioned examples. The final cadence of a work is the most important one, and no performer of the Baroque or a modern-day performer would just play over the cadence without emphasizing it. Normally one would begin to slow down the tempo as soon as the cadential progression requires it. However, this should not happen too soon, nor at the last minute, because either of these would cause the music to come to an awkward stop (Donington, 1960:36).

How, then, should one interpret the time-word(s) added later in the piece? They could have one of two meanings:

- They may occur just to remind performers of an earlier instruction
- They can be a hint that tempo and mood should change.

Performers should use own initiative in their interpretation of such words. Here follows some examples:

- In the last part of the C minor Organ Fugue, BWV 575 (Vol.IV), we find the heading *Piu* lento and at the same time the word Adagio appears over the last half-bar, indicating a very obvious ritardando.
- Ten bars from the end of the Adagio in the Toccata in C Major for organ, BWV 564 (Vol. III), the word Grave could be regarded as an equivalent of “*poco meno mosso*”.
- Another example is the Chorale Prelude “*O Mensch, Bewein’ dein’ Sunde gross,*” BWV 622 (Vol.V). It has an Adagio assai followed by an Adagissimo. Donington (1960:37) suggests that we may take the hint and end the piece as if the close was “*poco a poco ritardando*”.
3.7 Conventions of Rhythm in the Baroque

The dot that is placed after a note had different meanings in proportional notation. By the time that music history reached the Baroque period, the dot had only one meaning, and that is the same as we understand it today. In modern times however, we treat the dot as a means of lengthening the note before it by half its original value. Baroque musicians treated the dot as a means of lengthening the time of the note before it with an uncertain amount of time depending both on taste of the performer and by the circumstances under which the performance took place (Donington, 1960: 38).

It is important that the performer draws a distinction between:

1. Dotted notes that are an important part of the melody line and
2. Dotted notes that form a rhythmic figure.

In any true melody line there may be a number of dotted notes placed amongst other notes which are not dotted. In these cases the performer may slightly lengthen the dot and shorten the note that comes after the dot. However, there is no such tradition today or in the Baroque period whereby we could interpret the treatment that could have been tacitly intended by the performer (Donington, 1960:39).

In cases where the melody line largely consists of a series of dotted notes, or if these dotted notes occur not as a melody but rather as a rhythmic figure, the implication in Baroque music is certainly that the dot needs to be lengthened and the note after it should be shortened. In other words, the dotted note is treated as if it was double-dotted. In the case of double-dotted rhythms, the value of the second dot, and probably of both dots, should be interpreted not as sound but as silence of articulation (Donington, 1960:39).

The evidence of this treatment of dotted notes runs throughout the literature of Baroque music and there cannot be any doubt that it also applies to the music of J.S. Bach. Other rhythmic conventions which occurred in Bach’s time included the French lilt, or “notes inégales”, the so-called “stolen time”, or rubato. The performer should keep in
mind that the harpsichord works of Bach were much influenced by his French
contemporary, Francois Couperin, but in his organ music, (with the possible exception
of the organ sonatas and concerto transcriptions) Bach wrote almost entirely in the
German tradition, and because of this, the French rhythmic conventions will not always
be suitable (Donington, 1960:42).

3.8 Conventions Of Rhythm In The Organ Music Of J.S. Bach
In the organ Prelude and Fugue in E-Flat Major, BWV 552 (Vol.III), there are double-
dotted notes and these should be played in the French style where the dots are
replaced by silences of articulation. A comparative example may be found in the WTC I,
Fugue V, BWV 850. The style of this work is highly French and the dotted quavers of
the subject should be double-dotted throughout (Donington, 1960:45).

A case where double-dotting is definitely not implied, is bars 15, 27, 29-32 etc. of the
organ Chorale Fantasia, Valet will ich dir geben, BWV 735 (Vol.VII). The reason for this
is that the rhythm is not an open one, but there are other moving parts which need to be
fitted within the time of the dots. Conventions for double-dotting apply not only to notes,
but also to rests. An example is the G Major organ Prelude, BWV 568 (Vol. VIII). The
performer should “double-dot” (using marked silences of articulation) from bar 8, except
in bar 45 and 46 (Donington, 1960:45).

There are also a number of works with problematic rhythmic conventions of which the
following discussion will be on the organ Toccata nr.1 in C Major, BWV 564 (Volume
III). In bar 24 the dotted quaver B needs to be lengthened and trilled and the following
semiquaver needs to be delayed and shortened. In bar 27 the last beat contains a
dotted note which is not a rhythmic figure, but an important part of the melody; it should
thus be played as it was written. The dotted notes of bars 30-31 form rhythmic figures
and therefore need to be double-dotted and articulated crisply (Donington, 1960: 46).

In bar 31 the rest that occurs before the last semiquaver chord, needs to be prolonged
and the semiquaver chord itself should be played as a demi-semiquaver, as well as the
first beat of bar 32. In bar 33 there are semiquavers which move in the time of the dots and they should be played as written. Donington (1960: 46) states that if this is done, then one might argue that all the dotting in this work should be played exactly as written to “preserve the logic.” The performer should take note of the fact that there is never only one correct way of interpreting music where all other interpretations are perceived as wrong, least of all in the Baroque where much were left to the musical intelligence of the performer. Baroque taste was characterized by sharpened rhythms and clear articulation, and if performers wish to make the most of the “characteristic brilliance” of Baroque music, they will follow the above-mentioned practices.

The dotted notes of the Adagio from the same Toccata in C, BWV 564, needs to have its dotted notes sharpened and clearly articulated. It should be noted that Toccata style is brilliant and improvisatory, reminiscent of the brilliant French overture style (Donington, 1960:46).
4. ARTICULATION AND FINGERING IN THE ORGAN WORKS OF J.S. BACH

The aim of articulation is to make the music clear for the listener so that the intentions of the composer are revealed in a simple and musical manner. Articulation is the way in which the performer treats individual notes, motives or melodic groups of notes within a single phrase. Articulation marks (slurs and dots) are scarce in Baroque organ music. However we do find many articulation marks in Bach’s string and wind works as well as in his harpsichord, clavichord and his vocal music (Gleason, 1996:273).

Zehnder (1978:27) states that modern-day organ playing is mostly determined from a 19th-century point of view; “normal” articulation being legato and occasional shortening of notes is regarded as being an exception to the rule. Until the 18th century an older articulation practice was used. This consisted out of close placement of the notes; after the end of one note the next one speaks in a clearly audible manner and this is called non-legato. We can compare this method of playing with the normal recorder articulation where the articulation syllable (saying “tu”) momentarily interrupts the airstream, giving a very clear attack to the next note.

There are also a number of exceptions to normal articulation such as the following:

- Slurring of notes
- Staccato playing

Slurring entails groups of notes (mostly groups of two or four) which are marked with a slur and should be played legato. Chromatic lines, appoggiaturas and suspensions are executed in the same manner. The performer should make a very slight break between the groups of slurred notes and slightly stress accentuated beats (Gleason, 1996:273).

The performer should note that there are a number of factors to take into consideration in determining appropriate articulation, including the following:

- Study the music in relation to its general character (the affect)
- Writing style (vocal, instrumental or both)
• Characteristic motives, themes and inner phrases that should be defined

Much attention should be given to preserving a balance between various articulations and touches such as legato, non-legato and staccatos, because this will enable the performer to avoid monotony and a lack of clarity and continuity in his playing (Gleason, 1996:273).

The basis of good organ playing lies in the execution of the attack and release of the notes. The release of a note is heard clearly as the attack and should be executed with the utmost accuracy (Goode, 1964:171). The performer needs to have complete control of his fingers and should be able to listen to himself in order to realize all the different types and modifications of legato, non-legato and staccato in his playing (Gleason, 1996:267).

4.1 Fingerings

Early keyboard fingering systems differed largely from those that are familiar to us today. Modern-day fingering for keyboard instruments (including the organ) employ all the fingers whereas early fingering systems employed almost only the 2nd, 3rd, and 4th fingers; the thumb and 5th finger were used far less than we do today (Ferguson, 1987:67).

There was a tradition to associate the so-called “good” fingers with the “good” notes (strong beats) and the “bad” fingers with the “bad notes” (weaker beats). Diruta¹ discussed this concept in detail as early as 1593. “The inequality of two adjacent notes was acknowledged; it created a type of “speaking” articulation, comparable with the rise and fall of speech itself” (Zehnder, 1978:27).

Fingerings in the right hand was more uniform than the left hand and the tendency to regard the 3rd finger of the right hand as “good”, was the norm in England and the Netherlands, as well as North and central Germany. Italy and France regarded the 2nd

and 4\textsuperscript{th} fingers as “good” and the 3\textsuperscript{rd} finger as “bad”. The fingering systems of the Italian and Northern schools had a strong influence on the South-German/Austrian regions (Zehnder, 1978:27).

The fingerings of the left hand differed from the right hand in its regular use of the thumb for ascending passages. The modern sequence 4-3-2-1-4-3-2-1 appears occasionally. It is widely accepted that the thumb was excluded from early scale playing, but this only applied to the right hand; exceptions did occur sometimes. During the first half of the 18\textsuperscript{th} century the use of the thumb as we know it today, came into practice (Zehnder, 1978:27).

In England the use of the thumb was termed “the Italian manner of playing” and this probably referred to the new Italian style of Allesandro and Domenico Scarlatti. In Germany, J.S. Bach played a very important role in developing this new use of the thumb (Zehnder, 1978:27). Bach’s fingers were all equally skilful and because of this, he could perform all his music with the greatest accuracy. He was able to work out a convenient fingering system with which he could overcome every technical difficulty (Gleason, 1996:263).

The only examples of Bach’s fingering systems that survived are the following works:

- Praeludium and Fughetta, BWV 870\textsuperscript{1}
- Two pieces from the Clavierbüchlein vor Wilhelm Fridemann Bach, 1720
- The eight-bar Applicatio, BWV 994
- Praembulum, BWV 930

These were instructional pieces and their fingering is rather conservative. However, Bach’s normal fingering system must have been more advanced, because his son, C.P.E Bach wrote in his Versuch über die wahre Art das Clavier zu spielen, 1753: “My deceased father told me that in his youth he used to hear great men who employed their thumbs only when large stretches made it necessary. Because he lived at a time

\textsuperscript{1} This was an early version of the WTC II, nr.1.
when a gradual but striking change in musical taste was taking place, he was obliged to devise a far more comprehensive fingering and especially to enlarge the role of the thumb." (Ferguson, 1987: 74).

Kirnberger, who was a pupil of Bach from 1739-1741 in Leipzig, said the following regarding Bach's fingering system: "Often there are two possible fingerings for a single scale, and one must use now the one and now the other, according to the nature of the piece. The figures above the letters [meant for ascending] can be used in both ascending and descending, as can also the figures below [meant for descending]." (Gleason, 1996:265).

The performer should take note of the fact that legato playing in the modern-day sense was not automatically connected to the new usage of the thumb. The old fingering systems were still in use until the end of the 18th century. This new practice of employing the thumb in playing can be closely linked to the desire to play in more complicated keys (Zehnder, 1978:27)

C.P.E. Bach discussed the new hand position in detail and stated the following:

- The 2nd, 3rd, and 4th (the longest three) fingers play on the black keys
- The thumb hereby acquires its correct position on the naturals – “as nature would have it used”
- The 2nd, 3rd, and 4th fingers according to the older fingering system are placed on the naturals and the thumb is not placed on the keyboard at all (Zehnder, 1978:27)
- The thumb was used as pivot to enable lateral hand movement
- The thumb and 5th finger were used on the white notes only, except in the case of wide stretches
- The thumb may be passed under the 2nd, 3rd, and 4th fingers but not under the 5th
- The thumb may be used for passages in 3rds
- Fingers may be changed silently on a note
• In the case of an adjacent pair of black and white notes, these notes may be played legato by sliding the one finger from the black to the white note (Ferguson, 1987:77).

Another factor that is closely related to these developments is keyboard construction. During the second half of the 18th century naturals were made longer, so that when playing C Major for example, the turning of the thumb under became easier (Zehnder, 1978:27).

4.2 Polyphonic Fingerings without finger substitution
In early instructions on keyboard playing we find fingering systems for scales and two to four-part intervals and chords. This seems to have been the case for all music. There exists no evidence that musicians aimed to obtain legato (as we know it today) in the individual parts of the work by using finger substitution. Performers tended to play from chord to chord. C.P.E. Bach referred to this phenomenon with the following words: "Our forefathers, who were generally much more concerned with harmony [i.e, polyphony] than melody [i.e, homophony], played consequently for most of the part in several voices. It will therefore be clear, that since most passages can only be fingered in one way anyway,. . .that the position of each finger is thereby immediately determined;..." (Zehnder, 1978:28).

The natural five-finger position was a determining factor in choice of fingering and in large stretches between notes, the musician often reached out with the same finger, especially the thumb or fifth finger. Finger substitution was used frequently on notes with long note values which enabled the hand to take over another voice (Zehnder, 1978:28).

The use of finger substitution as a method of connecting the notes was probably first described by Francois Couperin in 1716. However, this should not be regarded as evidence of legato playing in Baroque keyboard music.
4.3 Articulation Descriptions

Precise descriptions of articulation in keyboard music before 1750 are very scarce. The most important information regarding this matter, seems to be a small section in Nivers’s *Premier Livre d’Orgue* in 1685:

“An important refinement and grooming of playing is the ability to not only mark all the notes clearly but also to subtly connect a few of them (as is correctly taught by the art of singing). To separate and mark the notes, one must raise the finger promptly while simultaneously striking with the next, and likewise the ensuing notes. For if one does not release the first until after having played the second, then one must term that “confusion” rather than “separation” of the notes. To join *coulér* the notes, one must nevertheless separate them well, but the fingers must not be raised as quickly; this method lies somewhere between “separation” and “confusion” of the notes, or perhaps combines a little of both. It is used mostly for the *ports de voix*…For all these things one should study the method of singing, for in such instances the organ should imitate the voice”


From the above quote, it is clear that a small separation between the notes is regarded as the norm and the *coulér* as used for the *port de voix* was the exception. The execution of the *port de voix* on a keyboard instrument is described in a number of later French sources. Nivers definitely did not intend a complete legato but Andrè Raison (Premier Livre d’Orgue, 1688) required that the first note should be played until after the second note had been played (Zehnder, 1978:28).

Rameau gave the over-legato articulation in his *Piéces de clavécin*, 1724. The over-legato created an astonishing effect on the harpsichord with its diminishing tone quality. Rameau stated that this method also applied to organ playing. This should be used very carefully on the organ due to the fact that one can achieve quite the opposite effect. The performer should note that it is important that his fingers should sense the “pulling”
between the two notes, thus the gentle playing of the second and the release of the first note (Zehnder, 1978:28).

We find another description of articulation in Girolamo Diruta’s *Il Transilvano* (1593), this is an instruction book for organ playing which follows the Venetian school and Claudio Merulo’s method of organ playing. Diruta discussed the importance of the relaxed hand position in detail; he described organ articulation as revolving around its “antithesis to the performance of dance pieces on the harpsichord” (Zehnder, 1978:29) The performer of dance pieces on the harpsichord “must strike (*battere*)” the notes in such a manner to enhance the function of the jacks and to lend more grace and elegance to the dances themselves. Performers on the other hand must make sure that a scale passage does not sound similar to a singer taking a breath after each note. They can achieve this through the depressing (*premere*) of the note with a relaxed finger instead of hitting the keys with the whole hand (Zehnder, 1978:29).

The performer should not strike any note before he released the preceding one; this release and pressing down should occur at the same time. Zehnder (1978:29) states that these two requirements appear to be “mutually exclusive”. However, we should remember that the term legato was defined as “release of the first note after having played the second” (Raison). When the player starts the upward movement of releasing the finger and the downward movement when striking with the finger simultaneously, the same small speech-like articulation takes place. This is similar to the use of early fingering systems or the player reaching out with the same finger when playing a single line “within a polyphonic structure” (Zehnder, 1978:29).

### 4.3.1 *Imitatio Violistica* Articulation in Germany

The earliest definition of the legato slur used in keyboard playing is discussed by Samuel Scheidt in his *Tabulatura Nova* (1624). “Where the notes . . . are slurred together, there is to be observed a special manner of performance, similar to gambists who are used to making slurs with the bow. Since such a style of performance is not uncommon among the leading German gambists, it also lends a lovely, gracious
harmony on organs, regals, harpsichords and clavichords that have a light touch. For this reason I myself have adopted and made use of this manner of playing”¹ (Zehnder, 1978:29).

Scheidt derived his method of organ playing not from singing, like French organists did, but from gamba playing, where each note would normally be performed with a separate stroke of the bow and occasionally two or more notes were being slurred together in one stroke. In the work of Scheidt there are found two- and four-note slurs. In the first part of the *Tabulatura Nova* there are only four-note groupings and in the second part, only two-note groupings (Zehnder, 1978:29).

In these slurred groups of notes, the movement is mostly stepwise with all the slurs starting on a stressed note and ending on an unstressed note. Almost all slurs in German keyboard music until the time of Bach can be interpreted in this string-like way. Bach’s contemporary, J.G. Walther, defined legato playing in his article “Legato” (Lexicon, 1732): “that in vocal works only one syllable is placed under such notes; in instrumental works where the notes are similarly slurred they should be performed with one stroke of the bow” (Zehnder, 1978:29).

Slurs were scarce in the 17th century but they were used more frequently around 1700, in the works of Böhm Kuhnau, Kaufmann and most important, in the music of J.S. Bach. The following organ works may be cited as examples of string imitation:

- *Ich ruf’ zu dir, Herr Jesu Christ*, BWV 639, where the gamba sound may perhaps be regarded as a guideline in registration choice for the left hand.
- In the second and third movements from Trio Sonata VI in G major, BWV 530 the player has to play the repeated notes “in one bow”. Thus, in the first group of 4 quavers, the 1st three are slurred and in the second group of four quavers, the last three are slurred (Zehnder, 1978:29).

Türk believed that slurred notes should be articulated in the following manner:
“One should hereby take note that the notes over which the slur begins should be played with a very slight (hardly noticeable) accent”. C.P.E. Bach had a similar point of view on the execution of slurred notes. The performer should think in terms of “loud-soft” when playing slurs on the organ (Zehnder, 1978:29).

4.3.2 The Over-Legato
Notes that progress in a stepwise manner are mostly played with normal articulation: sometimes, as an exception to the rule, they are ornamented with slurs. In the Baroque instrumental style there existed a style of playing in which a two or three-part structure is hidden behind a single melodic line. Such cases were frequently performed in Germany with suspension of the notes in question (Zehnder, 1978:29).

This type of notation was known in France as the style luthé or style brisé and had its origin from the models in contemporary lute repertoire. The duration of the plucked note is not a fixed one; the note sounds until the finger is released from the respective fret and the string is used to play another note. The lute style of playing was used frequently in France as a style of harpsichord playing, but was also used on the organ (Zehnder, 1978:29).

In his Principes du Clavecin, 1702, p.13, Saint-Lambert stated the following:”One holds all these notes after having played them, even though their value has expired, and one does not release them until the time comes to release the last one”. Rameau gave similar indications in his table of ornaments as well as C.P.E. Bach. In practice, this style of articulation appears seldom in especially organ music. A few hints regarding the application of the style luthé in the organ works of Bach, may be noted:
Prelude and Fugue in A Major, BWV 535: In the 5th measure’s left hand one may compare the simplified notation in the earlier version (Peters’ appendix or the Neue Bach Ausgabe). The right hand may hold the first four sixteenths a little longer than its original value each time.
Prelude and Fugue in A Minor, BWV 543. In measures 11, 13 and 15 etc. an over-legato articulation is indicated by the first crotchet and can also be extended to the other notes of the chord. In a similar manner, at the start of the piece, an over-legato articulation is possible through careful experimentation on the part of the performer (Zehnder, 1978:30).

4.4 Phrasing In The Organ Works Of J.S. Bach

J.S. Bach favored the legato style of organ playing. Phrasing must be executed in good taste and within the legato, the player must group separate tones into phrases. The performer who is able to articulate his phrases clearly, will achieve the effect which Schweitzer (1945:312) referred to in the following quote: “The effect should be as if what is impossible on the organ had become possible, - that is to say, that some notes have a heavy and others a light touch. This is the ideal to be aimed at” (Schweitzer, 1945:312).

In ages past, before legato as we know it today was made possible by the passing under of the thumb, only a few notes could be played legato. The remaining notes were detached due to the displacement of the player’s hand, and players acquired a feeling for the grouping together of certain notes within a legato that we don’t know today. We can form a rough idea of this grouping together of notes by observing how runs were divided between the two hands during that point in time (Schweitzer, 1945:312).

A division between the hands indicates Bach’s phrasing. However, there are many organists who do not realize this and they perform these passages with one hand or even in octaves with both hands. The performer should follow the principle indicated by Bach in his writing style. In doing so he will realize that Bach grouped four consecutive notes in a way that detach the first one from the others by a slight break in the articulation and that this detached note actually belongs to the previous note group than to the following one (Schweitzer, 1945:312).

Examples of the above method of phrasing occur in the following organ works:
Toccata in D Minor, BWV 538 ("Dorian")
Toccata in F Major, BWV 540
Prelude and Fugue in G Major, BWV 541
Prelude and Fugue in A Minor, BWV 543
Prelude in B Minor, BWV 544
Toccata in C Major, BWV 564

It is still uncertain if we should occasionally play whole quaver or semiquaver passages staccato as a means of achieving variety. Fugue themes must be phrased in a simple but effective manner. Phrasing of fugue themes is wrong when it is not simple and cannot be maintained throughout the work especially when the theme enters. Due to this all the notes that interrupt the musical flow and characterized by leaps, need to be separated from the group and stand on their own (Schweitzer, 1945: 313-314).

4.5 Pedal Articulation
There are very few existing sources on organ pedal playing. Until Bach’s time, pedal playing was something for the specialist. Obligato pedal playing was only practiced occasionally in certain regions and periods in time:

- In south-German areas ca.1500 by Hofheimer and his pupil, Schlick, who composed a six-part manual and four-part organ work
- In the Netherlands and north Germany (from Sweelinck up to Buxtehude and his pupils)
- The tradition was taken over by the central-German organ school and through Bach’s tradition it spread throughout Europe (Zehnder, 1978:30).

The first question that everyone normally asked in a discussion on pedal technique is most certainly if heels were used in the Baroque or not. This question is not easily answered due to the fact that we may derive how pedal technique was perceived before 1700 only from indirect sources. Reports on this matter were written in the second half of the 18th century, in the lifetime of great instrumental pedagogues such as C.P.E. Bach and Leopold Mozart (Zehnder, 1978:30).
All these reports taught a mixed technique such as the following:

- Toe-toe (the same foot)
- Toe-heel
- The technique of alternating the feet

Since these techniques were preceded by fundamental changes in fingering systems, we may also assume that pedal technique underwent some changes (Zehnder, 1978:30).

We can derive some information regarding this matter from pedal keyboard construction of that time. The old pedalboard were not placed so far forward in the organ like we know it today. The farther back the player attempted to play the key with his heel, the more difficult it became. Organ builder, Bernhardt Edskes (1978) stated the following: “An important argument against the toe-heel method of playing is the slant of the pedal keys. The historic keys slant exactly opposite to the modern; when the key is depressed, the keys lie horizontally. This slant makes the use of the heel almost impossible, especially when one considers the upper keys (sharps) were even higher (40-45 mm above the upper edge of the naturals) than on the modern organ” (Zehnder, 1978:31).

Edskes (1978) further states that old organs had lighter pedal keys than the modern organ. Many authentic pedalboards did not need any springs under the keys, but were directly connected to the action in such a way that the pallet spring enabled the return of the pedal key. On the modern day organ the pedal keys are often fastened by means of a leaf spring at the rear and this causes the pedal key to rebound when released, causing especially in reed pipes poor speech (Zehnder, 1978:31).

The performer should take note of the fact that the organists of past centuries practiced on pedal clavichords, and this makes clear the degree in which our modern-day pedal technique had its origins in the historical one. The pedal clavichord had to be played “delicately and light-footedly” (Edskes:1978). In France the naturals of the pedal board
were short. In a picture from the book of Don Bédos\textsuperscript{1} one can clearly see the heel of the organist positioned behind the pedalboard when a key is played with a toe (Zehnder, 1978:31).

When questions regarding pedal technique are discussed many organists are of the opinion that playing with the heel is more comfortable. Zehnder (1978:31) states that this is only the case when the player assumes legato is the normal method of playing. The performer is advised to try and control a precise and slight articulation between two notes when using this method. The resulting legato in the pedal was seen as an exception and is substantiated in the following statement made by Jacob Adlung\textsuperscript{2}::"The times are changing – they now want to be able to play sixteenth and thirty-second notes with the feet and slur as well (with the feet)." Adlung was not actually speaking on the use of the heel, but it is highly possible that playing with the heel came into practice with the invention of slurred notes (Zehnder, 1978:31).

Zehnder (1978:31) states that when he looked through some of Bach’s organ music, he came across pedal slurs in almost a dozen pieces, the majority being works from the Leipzig period. He (Zehnder) cites the Prelude in B Minor, BWV 544 (measures 9-10) as an example where Bach probably intended the performer to play the slur with the left heel on E, or perhaps with a change of the feet (Zehnder, 1978:31).

The heel can thus occasionally be used in the performance of Baroque music. Daniel Gottlob Türk (1756-1813) was a pupil of Gottfried Homilius, who in turn was a pupil of J.S. Bach, gave examples with pedal indications for alternate-toe as well as toe-and-heel pedaling. Our modern day pedaling technique makes very limited use of older pedal techniques of alternating the toes and each toe alone, but rather uses alternate toes and heels. This last-mentioned pedaling technique causes a smooth, effective


pedaling system, thus meeting the requirements of the demands pertaining to playing organ music from all periods (Gleason, 1996:109-110).

5. ORNAMENTATION IN THE ORGAN WORKS OF J.S. BACH

The French ornamentation style had a strong influence on Bach as well as to a lesser extent the Italian style. He particularly followed French composer, d’Anglebert in his ornamentation signs and their interpretation. Bach often wrote out melodic figurations in the Italian style and the turns, mordents, appoggiaturas and trills in the French manner (Gleason, 1996: 37).

In the Clavier-Büchlein that Bach started writing in 1720 for his son, Wilhelm Friedemann, he included a table of ornaments. This ornamentation table included thirteen ornaments which were often used, and the aim of it was to form an explanatory chart for his son. In addition to this table of ornaments Bach wrote an Applicatio to illustrate the use of ornaments in composition. The fingering contained in the Applicatio is important because it is one of only three known pieces with authentic fingerings by Bach (Gleason, 1996: 237).

The performer should again trust in his musicianship when interpretating Bach’s ornaments, and should keep in mind that musical considerations always come before rules and that there are always exceptions to the rule. The performer of Bach’s organ music will do well if he keeps to the following principles and continue to develop his musicianship in such a way that he is able to execute the ornaments with good taste and keep in mind their historical origins:

- Ornaments have an expressive function
- Ornaments are an important part of the music just like the written notes
- The first note of every ornament (there may be exceptions) begins on the first beat
- A dissonant note(s) needs to be emphasized, especially in music with an expressive character
• Ornaments need to be played in the key of the passage in question and not necessarily in the compositional key (Gleason, 1996: 237).

The following are the ornaments that Bach used in his table:

1. The Trill (Trillo, Tremblement, Shake, Cadence)
2. The Appoggiatura (Vorschlag, fore fall, accent steigend; back fall, accent fallend, port de voix)
3. The Mordent (pincé, beat)
4. The Turn (Doppelschlag, cadence, double)
5. The Slide (Schleifer, coulé, double appoggiatura)


5.1 The Trill (Trillo, Tremblement, Shake, Cadence)
Bach used the letters t and tr to indicate the “plain” shakes; those which do not contain prefixes or closing notes, he also used wave-shaped lines, written in modern editions with the following signs: \( \text{\o} \) or \( \text{\o} \). It is said that Bach also used a cross or plus (+) sign to indicate a trill or shake (Emery, 1953:34). Gleason (1996:237) states that the repercussions indicated by the trill sign are not necessarily an indication of the number of repercussions to be played. A shorter trill sign might be an indication of a longer trill. In the end it will be the value of the trilled note, the tempo and the character of the music which determines the number of repercussions (Emery, 1953: 34-35; Gleason, 1996: 237).

In the case of shakes with prefixes and closing notes, Bach used the following signs: The preliminary hook is indicative of an ascending or descending prefix, whereas the vertical stroke at the end of the sign indicates the closing notes. The performer should note that the stroke appears at the end of the sign and not at the beginning or middle as in the long mordent (\( \text{\o} \)). The final hook (\( \text{\o} \)) might have been a slip of the pen, but it is also possible that Bach used it to indicate closing notes (Emery, 1953: 34-35).
The sign used to indicate the trill, is normally placed over the harmony note and the trill is played from the upper auxiliary (principal) note. Trills should never be played in a mechanical manner. In the case of expressive movements (especially slow movements) the tempo and rhythm of the trill may vary. The rhythmic pulse should never be distorted even if the trill is made a little longer than its note value. A very effective expressive possibility is when the player puts a slight emphasis on the first and the other dissonant notes of the trill (Gleason, 1996:237).

Trills on long notes are normally indicated with any of the other trill signs and these may be interpreted in a number of ways. Trills on short notes are frequently indicated with the following signs: $\uparrow\uparrow\uparrow$ or $\downarrow\downarrow\downarrow$. These trills can be played as four notes of the same value and need not stop on the principal note (Gleason, 1996:238).

On notes of very short values such as quavers or semiquavers the player may treat the upper auxiliary note as an appoggiatura and play only two notes of the trill. The closing notes of trills were normally written out or even indicated with a line at the end of the ornament sign ($\uparrow\downarrow\uparrow\downarrow$). The note values may be similar to the written-out closing notes, however, the tempo and character of the music will determine this (Gleason, 1996:238). According to Ferguson (1987: 115) C.P.E. Bach stated that the closing-notes should be used at the end of the trill on notes of longer value and on a short note when the next note is a step higher (not one step lower). However, this is only a guideline and the player should rely on his musical judgment (Ferguson, 1987: 115).

In some cases musical considerations may indicate a shorter note value for the trill and its closing-notes. However, this is only the case when the trill can be played at a reasonable speed (Gleason, 1996: 238). In some cases where it is possible to play more than three or four notes at a fairly brisk tempo, the player may use a long shake even if a short wavy line is used to indicate the trill (Emery, 1953: 37).

In some instances the trill may start with longer note values and increase in speed before returning to the slower closing-notes. Another possibility is to play the trill as
three groups of demi-semi-quavers and play the two closing notes at their written values (semiquavers). Where trills occur at cadences (with or without closing notes) the trilled note will always be the third or fifth of the chord. Trills may occur in any type of cadence and have melodic and harmonic formulas which may be interpreted in a number of different ways (Gleason, 1996: 238).

In certain cadence trills the closing notes may be played regardless if they are indicated or not, especially when the next note is ascending. A trilled note may also be tied to the preceding note and this occurs frequently in the case of the trilled note on a weak beat and is preceded by the note above it. It is also possible for the player to tie the trilled note to the preceding note, regardless if such a procedure is indicated or not (Gleason, 1996: 238).

The first note of the trill can be preceded by an appoggiatura indicated by the sign ( ), by a vertical line before the ornament sign ( ) or by a small quaver. This lengthening of the first note of the trill is very effective in expressive music. Another way to play the trill is to play it with a prefix (turn) from above or below. Small notes are used in some cases to indicate the prefix and sometimes the closing-notes are included (Gleason, 1996: 239).

5.2. The Appoggiatura

J.S. Bach used small notes (quavers or semiquavers) as well as single and double hook signs ( ) to indicate appoggiaturas. There is no separate definition for the double hook sign because the second hook seems to be an indicator of the slur that is attached to appoggiaturas in print as well as in writing (Emery, 1953: 76).

The value of the small note ( ) does not change the length of the appoggiatura because the appoggiatura varies according to the musical context as well as involving the harmony, note values, tempo and expressive content of the music. In some cases the appoggiatura moves by step. It starts on the beat and will have different values (Gleason, 1996:239).
It is a possibility that in some instances the rising appoggiaturas in modern editions may be replaced by slides. Small notes or single hooks can be used not only to indicate an appoggiatura, but also a Nachschlag. After the player has determined that the small note is an appoggiatura and not a Nachschlag he needs to decide on the length of the appoggiatura (Emery, 1953:77-78).

There exists only one rule that provides clarity on the length of the appoggiatura, given by Quantz: “When there is a shake on a note that is discordant with the bass – an augmented fourth, diminished fifth, seventh, or second – the appoggiatura before the shake must be quite short, so that the dischord shall not be turned into consonant. . .” Whenever an appoggiatura is consonant with its accompanying parts it should be made short (Emery, 1953: 79).

The performer should keep the above-mentioned rule in mind even if it is seldom an indicator of exactly how long the appoggiatura should be, it frequently does give a maximum duration. Apart from this rule of Quantz there are no other existing rules except for a list of possibilities which were made authentic by a number of authors who may or may not have agreed with Bach (Emery, 1953: 79).

The following is a list of possibilities on the length of appoggiaturas:

- All the appoggiaturas can be made short, maximum a quarter of the main note, or a sixth if the main note is dotted (rising and falling appoggiaturas are treated in the same way)
- The appoggiatura may take half the value of the main note or three-quarters the value if the main note is dotted
- Appoggiaturas may be as short as a semiquaver or as long as a half note
- An appoggiatura on a note that is tied over may take the whole value of the main note

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• In cases where the appoggiatura is followed by a rest, it may take the whole value of the principal note (Emery, 1953: 79-90)

There is another type of appoggiatura that is indicated with a small note, but moves by leap. It is treated as a short appoggiatura. There are also two other ornaments called *Nachschlag*. The first one moves by step and is indicated with a small note or hook; the second one moves by leap and is indicated by a small note. Both types of *Nachschlag* are played off the beat (Emery, 1953:91,93).

5.3 The Mordent
The mordent is made up of the main note going to the note below it and returning to the main note again, and is indicated with the following sign: \( \text{\textcopyright} \). There could be two or even more alterations especially in the case of notes with longer values. The mordent needs to be played in the key of the passage in which it occurs (Gleason, 1996: 240).

The mordent was sometimes played by playing both notes together with the immediate release of the lower note. C.P.E. Bach used this technique only on detached notes. In some instances the mordent is slurred to the previous note and such a slur may be treated as a tie. The sign used for the long mordent is the following: \( \text{\textcopyright} \) or \( \text{\textcopyright} \) with a vertical line in the center or to the left of the mordent. However, this sign was not used by Bach in his Explication. It is a possibility that Bach never wrote anything other than the short sign (\( \text{\textcopyright} \)) and he would probably have said that the player must rely on his musical judgment to derive the value of the mordent from the main note (Emery, 1953: 23).

When a long mordent does occur in a modern edition, it is most probably correct. The long mordent can always be replaced by a shorter one if proven to be unsatisfactory on long notes. C. P.E. Bach and D. G. Türk were of the opinion the long or short mordent must never take the whole length of the main note (Emery, 1953: 24).
5.4 The Turn

Bach used a sloping sign to indicate the turn (\text{\textordfiddle}). It is normally indicated with the ordinary horizontal sign (\text{\textordfiddle}), but in some cases by a vertical one (\text{\textordfiddle}). The turn consists out of four equal notes, starting with the note above the written one.

When the turn is placed above or underneath a note it varies according to the tempo. In legato passages the first note of the turn could be tied. In cases where the turn is placed between two notes, the player must rely on his musical judgment to determine the rhythm of the turn. C.P.E. Bach stated that turns are normally played fast but they may be played more broadly in slow movements. In some instances when the tempo is too fast or the note values too short, a trill with closing-notes may occasionally be played as a turn (Emery, 1953:31-34; Gleason, 1996:240).

5.5 The Slide

The slide is indicated by the sign \text{\textordfiddle} or by two small notes (semiquavers). It starts on the beat and is made up of a conjunct double appoggiatura and can be ascending or descending. Bach often used the slide that approached the principal note from the third below it and often wrote it out. However, he did not include it in his Explication (Emery, 1953:24; Gleason, 1996: 240).
CHAPTER 4
PERFORMANCE AND AUTHENTICITY

In this chapter, I debate the merits of the ideal of authenticity in performance practice as seen from both the modernist and postmodernist points of view, particularly as they have relevance to the performance of Bach’s Preludes and Fugues for organ.

1. MODERNISM AND BAROQUE PERFORMANCE PRACTICE

In the stricter sense, modernism originated as a historical phenomenon between 1883 and 1914. However, the roots of modernism lie much deeper in history than that. A discussion of modernism in the broadest sense could begin in the Renaissance period when we first encounter secular humanism, “the notion that man (not God) is the measure of all things” (Witcombe, 2008).

Essentially Renaissance humanism is about that “modernist expression of confidence that humankind can learn to understand, and then master, nature and natural forces, that we can grasp the nature of the universe, and even shape our individual destinies and the future of the world”. This same “expression of confidence” is prevalent in the eighteenth century. The ideals of the Enlightenment embody the “intellectual maturation of the humanist belief in reason as the supreme guiding principle in the affairs of humankind. Through reason the mind achieved enlightenment, and for the enlightened mind, freed from the restraints of superstition and ignorance, a whole new exciting world opened up” (Witcombe, 2008). This “new exciting world” was one that pursued scientific truths, reason, social justice, freedom, and a belief that these could be achieved through education.
Modernism in the late 19th and early 20th centuries “encouraged the re-examination of every aspect of existence, from commerce to philosophy, with the goal of finding that which was 'holding back' progress and replacing it with new, progressive and therefore better, ways of reaching the same end”. It is therefore a designation that broadly encompasses “the works of thinkers who rebelled against nineteenth century academic and historicist traditions, believing the ‘traditional’ forms of art, architecture, literature, religious faith, social organization and daily life were becoming outdated; they directly confronted the new economic, social and political conditions of an emerging fully industrialized world” (http://en.wikipedia.org/wiki/Modernism).

In musical composition modernism encompasses *inter alia* the serialism of Arnold Schoenberg and the primitivism of Igor Stavinsky. In the visual arts modernism is manifest *inter alia* in the abstract art of Wassily Kadinsky, Piet Mondrian, and Kazimir Malevich, based on “the assumption that color and shape formed the essential characteristics of art, not the depiction of the natural world” (http://en.wikipedia.org/wiki/Modernism). In architecture it is particularly exemplified by the skyscraper, typically rejecting decorative motifs in design and preferring to emphasize the materials used and pure geometrical forms.

As intellectual movement, modernism is closely allied with positivism. First coined by sociologist Auguste Comte, positivism is the philosophy that the only authentic knowledge is knowledge that is based on actual sense experience. Such knowledge can come only from affirmation of theories through strict scientific method. Metaphysical speculation is avoided. In the early 20th century, logical positivism — a stricter and more formal version of Comte's basic thesis — arose amongst the “First Vienna Circle”, who gathered at the Café Central before World War I. The positivist view is sometimes referred to as a “scientistic ideology”, shared by technocrats who believe in the necessity of progress through scientific progress, and by naturalists, who argue that any method for gaining knowledge should be limited to natural, physical, and material approaches. In psychology, a positivistic approach is favoured by behaviourism. Logical positivism (later and more accurately called logical empiricism) is a school of philosophy
that combines empiricism, the idea that observational evidence is indispensable for knowledge of the world, with a version of rationalism, the idea that our knowledge includes a component that is not derived from observation. Empiricism grew to become one of the dominant movements in American and British philosophy (http://en.wikipedia.org/wiki/Positivism).

Musicology as discipline arose in Germany in the late 19th century at the very time when modernist and positivist ideas were coming to dominate all forms of scholarship. In 1884, Guido Adler, among others, founded the first journal of musicology in Vienna, called the Vierteljahrsschrift für Musikwissenschaft. In it he published an article defining the scope, methods and aims of the new science, and, to this day, these definitions remain influential to a greater or lesser degree. In terms of methodology, Adler stressed the analogy between the methodology of the science of art and that of the natural sciences. He believed that the scholar of art should employ the same inductive reasoning as the scholar of nature. In terms of its scope, Adler compartmentalised the discipline into the historical and systematic realms. The study of institutions and of performance, however, was relegated to the status of “auxiliary disciplines” along with those of mathematics, physiology, psychology, grammar, etc. (Adler in Mugglestone, 1981: 1). Thus performance practice studies were in essence excluded from scholarly enquiry, which in turn gave rise to the traditional separation of European conservatoires of music (for performers) and university-based departments of musicology (for scholars). Nicholas Cook comments on the far-reaching influence that this separation has had on the discipline of musicology:

… musicology [began] as a nineteenth-century discipline modelled on philology, and therefore music [was understood] as written text … Because they think of performance as in essence the reproduction of text, musicologists don’t understand music as a performing art (Cook, 2003: 204).

Therefore modernism did not only influence the musical compositions of composers such as Schoenberg and Stravinsky, but it had a direct influence on musical scholarship and musical performance. For much of the 20th century musicology remained obsessed with a rationalism as well as critical formulation that focused on the following ideals:
Clarity
Objectivity
Historical and stylistic criticism that focused its attention almost exclusively on the notated musical text (Wotstein, 2001: 870).

Thus in musicology modernism and positivism led to an obsession with documented evidence. This led to a philological approach in historical musicology, and a structuralist approach in systematic musicology. Music criticism became obsessed with complex theories that explain the notes on the page rather than with theories of performance or reception. One of the consequences of modernist musicology’s concern with music in notated form, rather than with music in sounding form, was the relegation of musical performance to the peripheries of scholarship.

Inspired by these philological advances in historical musicology, therefore, for a large part of the 20th century the only redemption for the status of performance practice studies lay in its revival of historically authentic medieval, renaissance and baroque performance traditions. Modernism helped to sustain a new objective point of view towards eras past, influencing scholarship through principals of textual criticism and editing, thus having a profound affect on what was considered ‘acceptable’ forms of musical performance. The later 20th century’s preference for historically-based performance practices, pre-Classical repertoire, as well as the revival of instruments from those periods, can all be linked to modernism (Wotstein, 2001: 870).

Therefore the implications that the modernist point of view would have for the performance of Bach’s organ preludes and fugues today, would be that, for all practical purposes, this treatise could be considered complete as is. A modernist performance would require the organist of today to do no more than remain strictly within the bounds of the historical evidence presented in the previous two chapters. However, today such an approach to the performance of Bach’s music has become increasingly untenable. Just as modernism and positivism have been open to criticism, so historical performance practice must also admit to its inherent limitations. These limitations were pointed out by
philosopher Max Horkheimer with regard to positivism, but they apply equally to the notion that authenticity in music exists only in a reconstruction of the musical past:

Max Horkheimer and other critical theorists criticized positivism on two grounds ... The first criticism argued that positivism systematically failed to appreciate the extent to which the so-called social facts it yielded did not exist 'out there', in the objective world, but were themselves a product of socially and historically mediated human consciousness. Positivism ignored the role of the 'observer' in the constitution of social reality and thereby failed to consider the historical and social conditions affecting the representation of social ideas. Positivism falsely represented the object of study by reifying social reality as existing objectively and independently of those whose action and labor actually produced those conditions. Secondly, he argued, representation of social reality produced by positivism was inherently and artificially conservative, helping to support the status quo, rather than challenging it ... Today, practitioners of both the social sciences and physical sciences recognize the role of the observer can unintentionally bias or distort the observed event (http://en.wikipedia.org/wiki/Positivism).

The modernist approach to the performance of Bach's organ works today is untenable for two reasons:

- Too many factors remain unanswered by hisorical evidence
- The contingency of human involvement in performance is not accounted for.

These two factors will be dealt with in greater detail in the forthcoming section.

2. POSTMODERNISM AND BAROQUE PERFORMANCE PRACTICE

Postmodernism defines a historical period which postdates the period 1450-1950, reflective of a crisis of cultural authority and worldview, especially in Western culture as well as its institutions (Pasler, 2001: 213). As a reaction against modernism, postmodern thought embraces the idea of a multiplicity of meanings, the contingency of reason and knowledge, and therefore rejects the modernist ideal of identifying one objectified truth. In The Postmodern Condition, philosopher Lyotard therefore encourages us to reject the "grand narrative" or "metanarrative" of the Enlightenment, and to embrace instead the idea of the existence of "multiple genealogies" or "micronarratives".
In the *New Grove*, the effects of postmodernist thinking on musicology are summarized by Duckles and Pasler as follows:

Postmodernists tend to concentrate more on the role of the performer and listener in determining the meaning of the musical work. They analyse what is specific to individual performances ... They seek to understand musical expression independent from structure ... For postmodern scholars, the musical experience is essentially cooperative, collaborative and contingent (Duckles and Pasler, 2001: 491).

The role of the performer is thus central to postmodern musicological enquiry. There is a renewed emphasis on the importance of studying music *in* and *as* performance, rather than merely studying the notes on the page. Along with this has come a new understanding of the fact that the musical text is never fixed or closed. Even in the most meticulously notated music, there are always elements of its realization that are open to the interpretation of the performer. For example, there are many factors in our understanding of Bach’s musical scores, or in the historical documents about performance practice during Bach’s lifetime, that remain impossible to define with any degree of certainty. Stanley Boorman therefore reminds us that

... the notation itself is allusive. It is not the piece of music, it is not even a complete guide to reconstructing that piece. Instead it is an allusive guide, offering the performer hints alongside the instructions, and therefore depending on the musician’s ability to understand these hints and allusions (Boorman, 1999: 411).

For Richard Taruskin, that which modernists perceive as authentic performances do not in fact represent historical prototype performances nor do they represent a revival of older performance practices. Rather the term authentic in this context “embodies a whole wish list of modern(ist) values, validated in the academy and the marketplace alike by an eclectic, opportunistic reading of historical evidence” (Taruskin, 1995: 5).

In addition to that, we must consider that, in the case of the organ works of Bach, all performances are in fact contemporary; we play on organs that are very different from the typical Baroque organ with regards to action and registration. We can’t possibly
render an authentic performance of Bach’s organ works today, not even on the best Baroque style instruments.

This is not to say that any attempt at historical authenticity in contemporary performance is a waste of time. Becoming acquainted, as described in the previous two chapters of this treatise, with the requisite social, cultural and performance contexts means that the performer engage in so-called “performance-practice research”, which Richard Taruskin defines as “an attempt, on the basis of documentary or statistical evidence, to bridge the gap between what is written in … musical texts … and what was actually heard in typical contemporary performances” (Taruskin, 1995: 18). This exercise remains as valid today as it was at the height of modernism, therefore one should never “throw out all evidence of historical performance practice” (Taruskin, 1995: 5). But for the performer to stop engagement with the musical work at this point, says Taruskin, amounts to no more than “historical reconstructionism” that produces mere “seminar reports in sound”; furthermore, that “a performance that merely sets out to demonstrate that Bach was baroque represents preparatory work, not the substance of performance” (Taruskin, 1982: 348; 356). Thus:

The fruits of scholarshi p can mightily assist the performer's purposes; but to insist that the performer obey the scholar is just as tyrannically limiting as it would be to insist that the scholar pursue no project that cannot be turned to the performer’s immediate advantage (Taruskin, 1995: 30).

For Taruskin, therefore, true authenticity in performance practice does not lie in historical reconstructionism, but in embracing the contingency of music as process. A musical work is not only about the creativity of the composer, but also about the re-creativity of its performances, and the job of the performer is to open up the “border between the creative and the re-creative” (Taruskin, 1995: 47). In addition, reception history is by its very nature never static. The audiences of Bach’s day are not the audiences of today, therefore Bach’s music can never be heard or understood in exactly the same way as it was more than 250 years ago.
Music is thus ever contingent upon its new contexts, its new performers and its new audiences. In the broadest sense, even the analyst’s reading of a musical score may be understood as a particular kind of ‘performance’. In this regard postmodern thinking in the humanities in general, including musicology, has been largely influenced by the thinking of the literary critic, Roland Barthes.

Roland Barthes views literary text (which we may apply equally to music) as a multidimensional space in which a variety of meanings and writings blend and clash, none of which are original. In other words he perceives text as performative, one “without a father-author”, as everywhere and yet nowhere fully present. Each new performance or reading of that text imparts to it new meaning, meaning that doesn’t exist on paper, but only in its performances, in its re-creations, and these re-creations are contingent upon the meanings and interpretations that each performer and each audience brings to it. It thus exists in a constant state of change, as an intertext that can never be fixed or closed (Barthes, 1977: 30). For this reason Stanley Boorman states:

The relationship of the original musical text (the concept of the composer) to the notated text is the concern of the musicologist, rather than of the musical performer. The latter is expected to move forward from the notation, to produce a new musical text, reflecting both ability and musicality … [F]or both, the musical text [first] needs to be read and understood. Once that is done, the notations can be used to create a performance of a piece of music, in a way that reflects both the text and the time and place of the performer (Boorman, 1999: 414).

In other words, notation and historical information are important, but they are not all-important. Along with performance practice research which requires engagement with the composer as “the original musical text”, notation of the musical work itself may serve as a first step for the performer to ensure that he or she remains within the bounds of what Kofi Agawu would call “historically preferred meanings” rather than “fanciful meanings” (Agawu, 1991: 5), but the discretion and musicality of the performer is ultimately the essential ingredient that makes a performance truly great. What this implies for organists performing the organ preludes and fugues of Bach today, is that they should have knowledge of the registers found in the type of organ known to Bach,
and by comparing this to modern-day organs as well as keeping in mind how performance could have sounded in Bach’s time, select a type of registration that is not stylistically correct (because there are no “authentic correct” performances), but rather what seems to be stylistically appropriate or preferable.

3. CONCLUSION

Taruskin quotes the following passage from the New Grove:

Reproducing as closely as one can the techniques and timbres known to be appropriate to a given period can never replace performances that are musically convincing to the audience; and yet the means and style of performance imagined by a composer are so indissolubly bound up with the whole musical fabric that he has set down, that the communication and impact of the composition are seriously impaired if the sounds he imagined are not at least kept in mind when preparing modern performances (The New Grove 14:371 in Taruskin 1995: 15).


For my part, I am inclined to side with the postmodernist rather than the modernist view on questions of authenticity in performance practice, and therefore this treatise would not be complete without combining the necessary historical contexts provided by the previous two chapters of this study with a closer examination of the element of contingency and tacit knowledge in the case of Bach’s organ preludes and fugues. This I shall do in the following chapter by considering the insights organists can gain from highly regarded performers and teachers in the field of contemporary Bach performance practice.

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CHAPTER 5
EXPLORING TACIT KNOWLEDGE

In this chapter I am going to explore the issue of tacit knowledge and how this important source of information can be of great value to others in the field of musical performance. An attempt will then be made to draw valuable lessons about the performance and teaching of the Bach Preludes and Fugues for organ from the following tacit sources:

- Analysis of the CD recordings of Bach organ works by two well-known concert organists, Marie-Claire Alain and Barry Jordan

1. THE CONCEPT OF TACIT KNOWLEDGE

Musicology has a long and deeply inscribed history of neglecting to theorize musical performance and music education. With reference to this fact, Silverman states the following: “It is as if learning to perform has not been an acceptable academic subject” (1995: 307). Therefore, in the absence of fully developed academic traditions in this regard, Woody believes that “by examining the experiences that most successful musicians have in common, teachers can learn how to help all their students build their musical abilities”, because “studying expert musicians is, in effect, studying what works” (Woody, 2004: 17-18).

The main reason for this is due to the extent to which most successful practicing musicians, both performers and teachers, rely on their innate levels of knowledge, described by Polanyi (1983) as “tacit” knowledge (http://en.wikipedia.org/wiki/Tacit Knowledge).
The tacit knowledge-concept comes from the scientist and philosopher Michael Polanyi. It is very important to understand, however, that he wrote about a process (tacit knowing) and not about a fixed form of knowledge. However, his phrase has since been interpreted as describing a type of knowledge that is defined as apparently wholly or partly inexplicable.

With tacit knowledge people are often unaware of the knowledge they possess or that this knowledge can be of great value to others. Tacit knowledge is considered to be a very valuable source of information since it provides context for people, places, ideas and experience. In order for tacit knowledge to be transferred effectively, there should generally be extensive personal contact and trust (http://en.wikipedia.org/wiki/Tacit Knowledge).

Tacit knowledge is something that is not shared easily, giving rise to Polanyi’s famous dictum “We know more than we can tell” (Polanyi, 1983). Tacit knowledge is frequently made up of habits as well as culture that we do not recognize in ourselves. In the field of knowledge management the tacit knowledge-concept refers to a type of knowledge which is only known by an individual and that it is difficult to communicate to the rest of an organization. Knowledge that is easy to communicate is referred to as explicit knowledge. The process of transforming tacit knowledge into explicit knowledge is referred to as codification or articulation (http://en.wikipedia.org/wiki/Tacit Knowledge).

There are three main approaches to the capture of tacit knowledge from groups and individuals, namely:

1. Interviewing experts
2. Learning by being told
3. Learning by observation.

The interviewing of experts can be done in either structured interviewing or by recording organizational stories. Learning by being told can be done by interviewing or by means of task analysis. Either way an expert teaches the novice the processes of a task. Task
analysis is the process of determining the actual task or policy by breaking down and analyzing what needs to be done to complete the task. Learning by observation can be achieved through presenting the expert with a sample problem, scenario, or case study and then observing the process used to solve the problem (http://en.wikipedia.org/wiki/Tacit_Knowledge).

I agree with Woody (2004), Silverman (1995), and Polanyi (1983) that we cannot learn everything there is to know about Baroque performance practice – or, for that matter, of any other style of musical performance - from books. There exists a certain degree of tacit knowledge that is passed on orally from teacher to student. In addition to book knowledge, teachers carry with them the knowledge gained from the pedagogues who taught them, as well as knowledge gained from listening to the performances of others and critically reflecting on their own playing. Very often they themselves are unaware what it is that guides them to know, almost intuitively, why a certain musical execution may be “right” in one situation but “wrong” in another. This is why Polanyi says of our tacit knowing that “we can know more than we can tell”.

In the context of the topic of this treatise, the tacit knowledge of musical practitioners is operative at all levels of musical interpretation discussed in the previous chapter, namely, choices pertaining to registration, tempo, rhythm, fingering, articulation, phrasing and ornamentation. This brings the postmodern notion exemplified by Lyotard’s “multiple genealogies” (Lyotard, 1984) sharply to the fore, because every individual’s tacit knowledge regarding such matters will differ from the next, due to different influences and also because we as individual people interpret that which is being taught to us in a different manner. The forthcoming sections of this chapter will explore some of these “genealogies” in the case of Bach’s organ works.
2. ANALYSIS FROM CD RECORDINGS BY TWO WORLD-RENOWNED ORGANISTS, MARIE-CLAIRE ALAIN AND BARRY JORDAN

2.1 Prelude and Fugue in A Minor, BWV 543, Performed by Marie-Claire Alain

In the performance of this Prelude and Fugue, Alain adopts a very lively tempo, playing with a non-legato touch. The registration throughout the work is a *plenum* sound, consisting of 8’, 4’, 2’ and a mixture stop in the manual part with 16’, 8’, 4’, and a reed stop in the pedal part.

The Prelude is written in 4/4 time with the semiquaver as the typical *moto perpetuo* throughout. Alain puts very slight emphasis on the first two semiquavers of the first beat and again on the first two semiquavers of the third beat. She achieves this effect by slurring the above-named semiquavers.

The written out trill in bar 23 is played in time with the preceding demi-semiquavers and ends with a slight *ritardando* towards the end of the bar. The pedal solo following this trill is articulated in the same way as the semiquavers in the manual part, with a slight *ritardando* towards the end of bar 28 where the next manual entry occurs. Runs in demi-semiquavers are played with brilliance and a slightly lighter touch. The quavers in bar 36 are played slightly heavier than the preceding semi- and demi-semiquavers. Alain achieves this sound effect by slightly shortening the preceding notes, creating a sound virtually “impossible” on the organ, with some notes sounding as if they were played “louder” or “softer” than the others. The rest of the Prelude proceeds *a tempo* with a *ritardando* towards the end in bar 51-52.

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1 Marie-Claire Alain was born on 10 August 1926 in Saint-Germain-en-Lange near Paris. She studied organ at the Paris Conservatory in the organ class of Marcel Dupré and was awarded four first prizes. She recorded the complete works of Bach as well as complete works of other organ composers. She is the most-recorded organist in the world with over 260 recordings in her catalogue. Alain has a long association with St. Albans International organ festival (http://en.wikipedia.org/wiki/Marie-Clarie Alain. Alain, M. 1987. Prelude and Fugue in A Minor, BWV 543 by J.S. Bach. *J.S BACH*, Track number 3. Erato Disques S.A. ECD 88236.
The Fugue is written in 6/8 time and Alain places slight emphasis on the first and fourth quavers of each bar in all the voices, in the manual as well as in the pedal parts.

Cadences, themes and answers stand out clearly through the use of a slight *ritardando* before each of these is played. Towards the end of the Fugue there is a brilliant pedal solo that is in actual fact a “built-in” crescendo and does not require any addition of stops. Alain uses brilliant non-legato touch here and the resulting sound effect is a very light and flowing one. The quaver rest sign, the following quavers and the last note of the piece are played more broadly with a *fermata* on the closing crotchet; providing a brilliant closure to this magnificent piece of music.

### 2.1.1 Problematic Features of the Prelude and Fugue in A Minor, BWV 543

Some of the problems which the performer might encounter in performing this work include the following:

- Tempo and Rhythm
- Articulation and Phrasing
- Fingering
- Ornamentation
- Registration.

#### 2.1.1.1 The Prelude

*Tempo and Rhythm.*

The Prelude opens in 4/4 time with 4 groups of semiquavers in bar one until the first half of bar 4, where we find semiquaver triplets until half of bar 6 where the normal semiquavers resume. This semiquaver rhythm changes again to triplets in half of bar 9 until bar 21. The performer may encounter some difficulty in keeping the same tempo throughout this change of rhythm. In such cases, I will recommend that the performer at first practice with a metronome until tempo and other rhythmic problems (such as incorrect counting) have been solved. However, the performer should be careful to adopt strict metronome tempos when performing the organ works of J.S.Bach.
**Articulation and Phrasing.**

The performer should play this work with *non-legato* articulation. In 4/4 time, the first beat should be clearly emphasized, while the third beat may receive only slight emphasis. This is achieved by slightly holding back and slurring the first two semiquavers of beat 1 and by slurring the first two semiquavers of beat three. This *non-legato* articulation applies to manual- as well as pedal playing. There exists some danger of *legato* playing in bars 11, 13, 15 and 17, where the left hand plays a crotchet while the rest of the fingers play semiquaver triplets. Due to the held-down crotchet, the performer may be tempted to play the semiquaver triplets with a *legato* touch. These passages should be practiced very slowly and *non-legato* to avoid wrong articulation in the end. Good *non-legato* touch will naturally result in good phrasing at all times.

**Fingering.**

The demi-semiquaver passages in bar 22-23 and again in bar 33-35 might present some difficulty with fingering. The performer is advised to carefully study the note beams in these passages, because this will provide valuable clues with regards to which hand plays what. I suggest that the performer takes the necessary time to work out suitable fingerings for these passages which will naturally result in a comfortable performance.

**Registration.**

A *plenum* sound should be maintained throughout this work.

**2.1.1.2 The Fugue**

**Tempo and Rhythm**

The performer should note the change of time-signature from 4/4 to 6/8. This change in time, in actual fact “halves” the previous time-signature and we now have two beats in a bar instead of four, thus creating a “lighter” feeling in the music. The performer should keep the same tempo throughout this change in metre. However, some people may have difficulty in doing so. Once again I suggest that the performer practice with a metronome until all difficulties with tempo and rhythm have been solved.
Articulation.
The performer should maintain non-\textit{legato} articulation and the emphasis will now be clearly on the first beat and only slightly on the fourth beat of the 6/8 time-signature. The performer may slightly detach the quaver on beat 1 (bar 1) and again on the fourth beat of the same bar, to create emphasis on these beats. The same principal applies to the pedal parts, for example in the first pedal entry in bar 15. Once again a good non-\textit{legato} touch will automatically result in effective phrasing.

Ornaments.
I suggest that the trill in bar 43 - 62, and again in bar 94, should be played in time with the music, thus not starting slow and progressively becoming faster. The reason why I am making this suggestion is because these ornaments occur on a short note value (dotted quaver) each time and not on a long note value, for example on a minim or semibreve. The mordents in bar 80-81, should be played in time with the music because they also occur on short note values (quavers) each time. I would suggest that the mordents on dotted crotchets in bars 126-127, should be played in time with the rest of the music.

Fingering.
The demi-semiquaver passages in bar 146 -150 could be problematic. Once again the performer is advised to study the note beams as these provide valuable clues in working out suitable fingering for the alternating hands. I suggest that the performer practice these passages very slowly at first until they become comfortable and all possible problems one might have encountered with the fingering have been solved.

Registration.
I suggest that the Fugue should be played with a \textit{plenum} sound throughout and that it is not necessary to add any additional stops, especially in bars 139 -146 where there is a brilliant buildup in the pedal, and from bars 146-150, where we encounter brilliant passages in demi-semiquavers. The reason I make this statement is because I believe
that Bach in his genius wrote the music to be in itself one big crescendo, and therefore it does not need any additional stops.

2.2 Toccata and Fugue in D Minor, BWV 538, “Dorian”, Performed by Barry Jordan

Jordan adopts a slower tempo in his performance of this work than Alain did in her performance of the Prelude and Fugue in A Minor, BWV 543. The registration throughout the Toccata and the Fugue is again a plenum sound. The Toccata, in 2/2 time, opens with semiquavers in both hands and Jordan emphasizes the first and third groups of semiquavers. He does this (like Alain) by slurring the first two semiquavers of beat 1 and again the first two semiquavers of beat 2. The pedal parts are played with the same non-legato touch and articulation as the manual parts.

He further achieves a brilliant sound effect in the quaver chords by slightly shortening the preceding notes; the resulting sound effect being (similar to Alain) that of some notes sounding “louder” and others sounding “softer”. He does this throughout the Toccata where these note patterns occur.

Cadences and modulations to other keys stand out clearly through the use of a slight ritardando before each of these. For example, in bar 24 Jordan defines the modulation from D minor to A minor by emphasizing the two pedal crotchets on E; the dominant of A minor going to the tonic (a: V-i).

1 Barry Jordan was born in Port Elizabeth, South Africa, in 1957. He studied in Cape Town, where he was also an Organ Scholar at St. George’s Cathedral, and completed his BMus in 1979. He also worked on his MMus in composition, which was rewarded with distinction for the gigantic orchestral work Last Things at the end of 1985.

Through scholarships from the South African Music Rights Organization and University of Cape Town, he continued his studies in Europe. He was an organ pupil of Martin Haselböck in Vienna and during his studies in Lübeck he gained the advanced performers’ diploma. Since August 1994 he acts as cathedral organist and choir master in Magdeburg, Germany (Jordan, 1996).


My decision to discuss a toccata and fugue in this context is motivated by the fact that the toccata is an improvisatory genre, like the prelude, and is therefore registered with the plenum.
Ornaments are mainly played *a tempo* throughout the work, not starting slower and becoming progressively faster. The dialogue between the Oberwerk and the Positiv is made clear through skilful registration; the part played on the Positiv serves as an echo to the Oberwerk part. The semiquaver patterns toward the end of the Toccata are played more broadly and a long *fermata* on the last semibreve chord provides brilliant closure to this part of the work.

The Fugue consists of four voices in 2/2 time. Jordan embellishes the fugue theme (in minims and crotchets) with trills not found on the score. One could argue that this is an influence of the French organ school (Jordan’s tacit knowledge?). Again, all themes, answers, cadences and modulations stand out clearly by the use of a slight *ritardando* before each of these occurs. The long pedal trill on the second last page of the Fugue is played *a tempo*, not beginning slowly and then progressing faster.

Before the final entry of the theme, Jordan creates a bigger *ritardando* than anywhere else in the piece. Towards the end the last crotchet chords are played more broadly (similar to the end of the Toccata) and the Fugue ends with a *fermata* on a brilliant D Major chord. Although the Fugue is very long (6 pages) Jordan keeps it alive through skilful articulation, registration and nuances of touch.

2.2.1 **Problematic features of the Toccata and Fugue (“Dorian”) in D Minor, BWV, 538.**

2.2.1.1 **The Toccata**

*Tempo and Rhythm.*

I would suggest that the performer adopt a lively, but not extremely fast tempo in this work. The toccata opens in 2/2 time with four groups of semiquavers in each bar. Emphasis should be placed clearly on the first beat and only slightly on the second beat of each bar. This is achieved by slightly holding back and slurring the first two semiquavers of the first beat and again the first two semiquavers of the second beat of
each bar. I would advise the performer to think in terms of two beats to a bar instead of four, because thinking in terms of two beats will cause the music to sound lighter.

**Articulation**

The performer should use a non-\textit{legato} touch in the performance of this work. The performer may encounter some problems in bars 7 -11, 15 -17, 81 - 85 and 86 - 87, where the desired sound effect is something virtually “impossible” on the organ, namely, that some notes stand out as “softer” and other as “louder” from the rest of the music. This sound effect in these bars is created by slightly shortening the preceding quaver to each crotchet beat, thus the quaver will sound “softer” than the following crotchet, creating emphasis on the first and second beats of each of these bars. In bars 13 - 45 and again in bars 67 - 81 there are manual changes from the \textit{Oberwerk} to the \textit{Positiv} and these should be executed with the utmost care, without a change in articulation or tempo.

**Fingering.**

The performer is advised to work out suitable fingering by once again considering the note beams, especially where manual changes occur.

**Ornaments.**

Due its length (expanding over 3 minims), I would suggest that the trill in bar 29 - 31 should start slow and become progressively faster. The trills in bars 61, 64 and 94 can all be played in time with the rest of the music.

**Registration.**

I recommend a \textit{plenum} sound throughout the Toccata. Due to the manual changes, the tone color of the \textit{Positiv} cannot be as full sounding as the \textit{plenum} on the \textit{Oberwerk}, because the \textit{Positiv} serves as an echo to the \textit{Oberwerk}. The performer is advised not to use a mixture on the \textit{Positiv}, but rather a \textit{Scharf}. However, if the organ in question does not have such a stop, it is best to use a Diapason 8′, Principal 4′ and a Fifteenth 2′ to provide the echo effect. The order of the manuals should never be changed: \textit{Oberwerk}
has to be played on the Great manual while *Positiv* can be played on the Swell manual (or on the Choir manual in a three manual organ with sufficient stops).

### 2.2.1.2 The Fugue

**Tempo and Rhythm.**

The Fugue is also written in 2/2 time, and the performer is once again advised to think in terms of two beats to a bar instead of four; doing so will cause the music to sound lighter. The performer should take note of the changing metre in the work as a whole: from mostly semiquaver and quaver movement in the Toccata, to mostly minim and crotchet movement in the Fugue.

**Articulation and Phrasing.**

The non-legato articulation of the Toccata should be maintained here. In order to place clear emphasis on the first beat and slight emphasis on the second beat of each bar in especially bar 1-8 (where the melody moves in minim), the performer is advised to slightly hold back the first beat of each bar. Once again a good non-*legato* touch will result in good phrasing.

**Ornamentation.**

The trills in bar 14, 24, 35, 57, 161 and 202 - 203, could all be played in time with the rest of the music. With the trill in bar 114, the performer could use a slight *ritardando* towards the end of the trill, to emphasize the cadence point. This same principle could be employed with the trill in bar 129 and the trill in bar 187. The pedal trill in bar 179 - 184 could start slow, progressively becoming faster, due to its long note value (trill written on a semibreve).

**Registration.**

I suggest that a *plenum* sound should be used throughout the Fugue.
3. THE VIEWS OF WELL-KNOWN ORGAN PEDAGOGUES ON BAROQUE PERFORMANCE PRACTICE

In this, the final section of the chapter exploring tacit knowledge, I turn to the responses received to the questionnaire (see attached Appendix A) to three leading South African organ pedagogues:

- Mr. Colin Campbell
- Mr. Antonio Lawack
- Professor Albert Troskie.

The format of the questions were deliberately open-ended so as to encourage the respondents to motivate their responses as far as possible. The questionnaire focussed on seven topics of Baroque performance practice pertaining to the organ works of J.S. Bach, namely, registration, tempo, rhythm, articulation, fingering, phrasing and ornamentation, and all questions were designed to shed further light on those “grey areas” identified in chapter three of this treatise.

3.1 Responses to Questions on Registration

With regards to registration, Troskie (2008) states that different *plenums* are possible. We do not know what exactly Bach regarded as *plenums*. The basic *plenum*, however, is 16’, 8’, 4’, 2 2/3’, 2’ and Mixture diapasons on the Great Manual and Pedal, with reeds added to the Pedal. Frequently one can also use 8’ Stopped Flutes, and even a Tertian or *Sesquialter* could be added for certain pieces, as well as reeds on the Great Manual. Troskie (2008) states that one thing is certain (from a purely musical point of view), and that is that the *plenum* does not refer to an indiscriminate *fortissimo*. The *plenums* of the *Rückpositiv* and *Brustwerk* are usually lighter in character (Troskie, 2008).

Lawack (2008) agrees with Troskie (2008) on the stops to be used for the *plenum*. However, he feels that the usage of a reed stop on either the Great or Choir is optional. He suggests that the performer should, when practicing, occasionally make use of the *plenum*, but he advises that one practice almost entirely on the softer flute registrations (Lawack, 2008).
Campbell (2008) agrees with Troskie (2008) and Lawack (2008) on the usage of 8’, 4’, and 2’ Diapasons (or equivalents such as Prestant, Principal, Octaves etc) for the *plenum*, as well as the usage of the Mixture (up to 5 rank). He suggests that a sharp mixture (normally about 2 or 3 rank) and an 8’ flute (not a wide-scaled flute) could also be added to the plenum (Campbell, 2008).

Troskie (2008) recommends that the same registration should be maintained throughout a performance of a Bach organ Prelude and Fugue, especially on a good organ. He further states that the music is so well written that, on a good instrument boredom and fatigue will not set in. Although the performer should not change the registration, a change of manuals does provide some variation to the sound. But these changes of manuals should be done very carefully and should be used only when the structure of the music clearly asks for it. One should remember that Bach also indicated changes of manuals in his Bach-Vivaldi transcriptions. It is not advisable to use a change of manuals in every instance where echo effects (often short bits) occur – only when echo effects are quite substantially present. Changes of manual also make sense when a piece is analysed from a musical-rhetoric point of view. This discipline (relation between speech and music), using all the tone symbolism and tone painting introduced by the rhetoric art, is strongly present in Baroque music. Bach’s Dorian Toccata and Fugue, BWV 538, is a prime example (Troskie, 2008).

Lawack (2008) recommends that the performer does not use the same registration throughout a performance of a Bach organ Prelude and Fugue. For example; if the performer used a reed stop in the prelude, it should be taken off at the beginning of the fugue. If the performer did not use a reed in the fugue, he or she should perhaps take off one of the higher sounding stops (Octave 2’ or Mixture) at the beginning of the fugue. Lawack (2008) believes that this will help to establish a clear differentiation in the two sections as well as to provide musical and aural variation to make the work interesting.
Campbell (2008) states that he normally chooses to maintain the same sound characteristic for both the Prelude and the Fugue or at least without the sharp mixture for the beginning of the Fugue. He advises the performer to take note of the fact that due to the construction of the instruments of Bach’s time, it is doubtful whether the registration could be changed at all without any assistance (Campbell, 2008).

3.2 Responses to Questions on Tempo and Rhythm
According to Troskie (2008) the factors that performers should take into consideration when choosing a suitable tempo for the Bach organ Preludes and Fugues, include the following. 1) The general structure - a more complex and contrapuntal texture cannot be obscured by too fast a tempo. 2) The general character of the work – does it ask for a lighter and faster-moving tempo, or more of a gravitas approach? 3) Bach himself used fairly brisk tempos and he maintained the beat – thus our approach to his works should not be as free as it would with Buxtehude, Bruhns or Frescobaldi, for example. 4) The tempo ordinario apparently was self-evident for players of Bach’s era, most likely to have been deduced from all of the above factors.

With regards to matters of tempo in the organ Preludes and Fugues of Bach, Lawack (2008) believes that the performer should never take the tempo too fast because the vital contrapuntal interaction between the different parts could be lost if performers concentrate so much effort on virtuosity that the rhetorical structure of the fugue becomes obscured. Lawack (2008) is of the opinion that Baroque performance technique should revolve more around the need to expose the mastery of contrapuntal technique than to demonstrate the kind of “full-blown” virtuosity one encounters in the works of Liszt or Widor for example, and therefore the tempo must never be rushed. Lawack (2008) states that the character of a fugue theme also plays a part in the selection of an appropriate tempo: if, for example, it contains lots of semiquaver movement the performer is advised not to start the fugue too fast. On the other hand, in cases where the fugue contains many crotchet and minim values in the theme, it may sound better being played at a fast moving tempo (Lawack, 2008).
For Campbell (2008) the following are the factors that performers should take into consideration when choosing a suitable tempo for the Bach organ Preludes and Fugues:

- The acoustical response of the venue in which the work will be performed
- Clarity of the contrapuntal lines
- The instrument’s response (attack of the wind in the pipes) (Campbell, 2008).

There is some difference of opinion amongst organ scholars regarding appropriate interpretation of the time signatures C and 4/4 in Bach’s organ works. In this regard, each respondent was asked to provide their interpretation of the metric indication in the excerpt, bars 1-8 from the Fugue in D Minor for organ, BWV 538 (the reader is referred to question 4 of the Organists’ Questionnaire in Appendix A).

Troskie (2008) recommends that the performer interpret the metre in this excerpt as 2 minims per bar. He explains that the general character of this work and wide-arching architecture implies the heavier “planting” of the meter in minims rather than “chopping” the metre up in crotchets. Doing so will also aid the flow of the work. Lawack (2008) agrees with Troskie (2008) on this question. He feels that 2/2 moves faster than 4/4 and that the 2/2 time signature is an indication of Bach’s intended metre.

Campbell (2008) agrees with Troskie (2008) and Lawack (2008) on the fact that the 2/2 indication in this excerpt refers to what Bach often used in an Alla Breve type occurrence and therefore he chooses to interpret 2 minims per bar (Campbell, 2008).

The literal interpretation of time words in the organ works of J.S. Bach is a matter to be questioned. The reader is referred to question 5 of the Organists’ Questionnaire, Appendix A, where respondents were asked to provide their interpretation of the Vivace indication in an excerpt from the Second Trio Sonata, BWV 526.
Troskie (2008) states that tempo indications are rare in the organ works of J.S. Bach and there are even cases in which the authenticity of these indications is doubtful. At most these indications should be seen as mere guidelines because, for example, the meaning of a music term such as *vivace* is quite different now to what it was during Bach’s lifetime. Generally it is thought that Baroque tempi were slower (“the tempo of life was slower!” [Troskie: 2008]), but the important factors determining tempo are again the music itself, i.e. texture, complexity, ornamentation, phrasing, cadence points, etc.

Lawack (2008) suggests that, as far possible, performers should aim to get hold of the Urtext of the works they perform, as these will in all likelihood contain Bach’s performance indications. Bach was not known to add much indication markings to the music as an aid to the performer; it is thus difficult to distinguish between indication markings by Bach himself or by the editor in charge of publishing. However, if ever in doubt, Lawack advises the performer to do what “feels right”. By virtue of the very nature of this field, musical performance always requires subjective engagement on the part of the performer, and for this reason there can be no universal right and wrong answers to questions of interpretation.

Campbell (2008) once again advises the acoustical realm to play an integral part in the choice of tempo. He states that the tempo will certainly change to a lot slower (in a live venue) than faster in a “dead” or unresponsive venue. The performer should take note of the fact that it is of the utmost importance to maintain the character of the tempo indication (Campbell, 2008).

With regards to rhythmic flexibility in the organ Preludes and Fugues of J.S. Bach, Troskie (2008) believes that the tempo should be fairly strict, although not mechanically strict and at the cost of musical playing. In Bach’s obituary it was said that Bach, when

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conducting, “had a very accurate and extremely steady tempo” (Keller, 1948:48).¹ When the performer uses rhythmic flexibility in the good sense – i.e. for the creation of agogic accents and the musical emphasis of cadence points – this will stand in contrast to a mere unrhythmical playing (Troskie, 2008).

Lawack (2008) agrees with Troskie (2008) that the organ Preludes and Fugues of Bach should not be played in a mechanically strict fashion. He believes that rhythmic flexibility should at all times be allowed to take place. By means of subtle changes in tempo, the performer draws the attention of the listener to vital motivic entries that would go unnoticed if the music was to be performed in strict time. Two devices which the performer may use to bring about rhythmic flexibility, are a very slight ritardando or rubato (Lawack, 2008).

Campbell (2008) is of the opinion that rhythmic flexibility in the organ Preludes and Fugues of Bach, is very important, for the following two reasons:

- This is the outline and introduction of new material or motives within the composition
- It serves to break monotonous repetition of the same rhythmic pattern (Campbell, 2008).

In bars 1-3 of the A Minor Prelude for organ, BWV 543, Bach has provided no tempo indication. The reader is referred to the Organists' Questionnaire, Question 7, Appendix A, where respondents were asked to provide their views regarding the choice of an appropriate tempo in such a case. Troskie (2008) believes that the emotional content of this theme with its chromatic voice-leading clearly asks for a slower, more intense tempo. If one was to play with a faster tempo the expressiveness of this very concentrated musical material would be lost (Troskie, 2008). Lawack (2008), on the other hand, believes that the constant semiquaver movement in the excerpt suggests a tempo between moderato and allegro. He feels that the music needs to move forward and therefore needs a certain amount of drive. However, this piece (in particular the

Fugue) should not be played with too rapid a tempo, since vital compositional information would be lost in the process (Lawack, 2008).

Campbell (2008) recommends a moderate tempo for this work. He states that we are dealing with a compound line and within the texture the listener must be able to hear both elements and its progression within the line (Campbell, 2008).

With regards to the execution of dotted rhythms in Baroque music, the reader is referred to the Organists’ questionnaire, question 8 in Appendix A. Troskie (2008) is undecided on this question, while Lawack (2008) feels that some of the opinions of organ scholars on this topic at times tend to complicate things unnecessarily by what he refers to as the “creation of unnecessary theories regarding certain issues”. The performer is advised to simply play what Bach composed (Lawack, 2008).

Campbell (2008) states that Bach was very specific about the note values: contrary to belief. He agrees with Lawack (2008) that the dots should be executed as written. The same goes for the crotchets.
3.3 Responses to Questions on Articulation and Phrasing

Troskie (2008) confirms that non-\textit{legato} articulation is appropriate in the performance of Bach’s Preludes and Fugues for the organ. He states, however, that all degrees of articulation can be found at different places in Bach’s organ works – from \textit{legatissimo} to \textit{portato}, non-\textit{legato}, \textit{staccato} and \textit{staccatissimo}. All of these articulations give life and vitality to the music. Many other factors, such as tempo, texture, intervals, leaps, agogic accents, acoustics of the church, emotional content, text content (chorale preludes) etc., should be taken into consideration when decisions are made as to the kind and intensity of the articulation. Lawack (2008) agrees that non-legato articulation is the appropriate articulation when playing Baroque music.

Campbell (2008) agrees with Troskie (2008) and Lawack (2008) that non-legato articulation is appropriate in the performance of Bach’s Preludes and Fugues for the organ. He states that care should be taken to get a good sense of pulse within the articulation. On the period instruments, it was doubtful whether legato in the romantic style was achievable at all (Campbell, 2008).

One of the best ways to explain non-legato articulation to an organ student, according to Troskie (2008), is to compare the concept of articulation to that of speech where understanding depends on the articulation of the speaker. In order to avoid one long, uninterrupted stream of words, there has to be articulation. The teacher should point out all the different types of articulation and indicate where they could be used in selected extracts from the organ repertoire. Lawack (2008) provides the following explanation for the ideal use of non-legato playing in Baroque music: In a Baroque work in 4/4 time with four groups of semiquavers in each bar, the first two semiquavers of the first group would be played “legato” (in actual fact a less open non-legato articulation), the next two semiquavers would be played non-legato, and the four semiquavers of the second group would be played progressively more non-legato, up to the point of bordering onto staccato leading up to beat 3. This process would be repeated for the next eight semiquavers as beats 1 and 3 are generally regarded as the stronger beats while bears 2 and 4 are regarded as the weaker beats.
Campbell (2008) explains non-legato articulation in the following manner: within the tempo; it should not be distinctly audible as being non-legato (Campbell, 2008).

We as teachers can recommend finger and pedal exercises to our students to improve non-legato playing. Troskie (2008) states that the best method will be to use examples of manual and pedal passages from the actual repertoire. These would be much more interesting than just exercises found in organ tutors. Lawack (2008) feels that any exercises containing musical material that would favour the application of non-legato playing would suffice. He suggests material from the *Ars Organi* by Flor Peeters to because it provides a detailed description and a comprehensive list of exercises which promote not only non-legato technique but also the entire spectrum of techniques needed to become a capable organist.

Campbell (2008) does not suggest finger and pedal exercises to improve non-legato articulation. He believes that the most important part initially is to ‘hear’ the correct touch. The ear plays an undeniably important role in good Baroque touch. Once the player ‘hears’ the correct sound, then he should start to ‘feel’ the correct touch (Campbell, 2008).

Creating the effect of strong beats and weaker beats, whilst also maintaining non-legato articulation, is a challenge. In this regard, the reader is referred to the Organists' Questionnaire, Section C, question 12, where respondents were requested to give their views on how this could be achieved in the case of bars 4-6 of the Prelude in A Minor, BWV, 543. Troskie (2008) places emphasis on the first and second semiquavers in bar 4, while the rest of the semiquavers in these two groups are played with a staccato touch. The first two semiquavers of the first triplet in bar 4 is played legato, and the last semiquaver of that group staccato. In bar 5 there are 8 groups of semiquavers; Troskie suggests that the performer plays the first two semiquavers of group 1, 3, 5 and 7 legato, and the remaining notes of these groups staccato. In bar 6 there are three groups of semiquaver triplets and two groups of regular semiquavers. Troskie suggests that the performer plays the first two semiquavers of group 1 and group 3 legato, as well

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as the first two semiquavers of groups 5 and 6 where regular semiquavers are found. The remaining notes from these groups are played \textit{staccato}.

Lawack (2008) believes that for all the “straight” (not the semiquaver triplets) semiquavers, the first two notes of beats 1 and 3 should be played \textit{legato}, while the remaining notes are played \textit{staccato}. He suggests that in the case of the groups of triplet semiquavers falling on beats 1 and 3, these should be played \textit{legato} whereas the remaining triplets should be played non-\textit{legato}. The performer could make use of such changes in order to accentuate all first and third beats. However, Lawack is of the opinion that this technique may become tiresome after a while, and he suggests that the \textit{legato} articulation found at the beginning of beats 1 and 3 should be enough to bring emphasis to the strong beats.

Campbell (2008) feels that rather than emphasizing strong beats, it is more important to decide on important or pivotal notes which should be accentuated. These notes will then be lifted out by either lengthening them slightly, or hesitating before reaching them, or a combination of the two (Campbell, 2008).

With regards to questions of phrasing, the reader is referred to the Organists’ Questionnaire, Section C, question 13, Appendix A, where respondents were required to give their views on suitable phrasing for bars 1-4 of the A Minor Fugue for organ, BWV 543. Troskie (2008) suggests that the first quaver of beat 1 and beat 2, in the 6/8 measure, bar 1, is played non-\textit{legato}, while the following 4 semiquavers are played \textit{legato}. In bar 2, the first group of three quavers (beat 1) is played non-\textit{legato}, the first two semiquavers of the second note group (beat 2) are played \textit{legato}, while the remaining semiquavers are played \textit{staccato}. In bar 3, in the first semiquaver group, the first two semiquavers are played \textit{legato} while the remaining ones are played \textit{staccato}. The same applies for the second semiquaver group of bar 3 (beat 2) as well as the two semiquaver groups of bar 4 (Troskie, 2008). Lawack (2008) suggests the following phrasing for bars 1 - 4 of the A Minor Fugue, BWV, 543:

First phrase – from the beginning to the A in bar 2
Second phrase – from the first E in bar 2 to the G in bar 3
Third phrase – from the E in bar 3 to the F in bar 4
Fourth phrase – from the D in bar 4 to the end of the next 6 semiquavers in bar 5.

For Campbell (2008) phrasing is directional movement in the music; always progression. He chooses to put emphasis on the first quaver of beat 1 (D) and the first quaver of beat 4 (B), as well as the first quaver (C) of bar 2 and the first two semiquavers (F and E) of beat 4 in bar 2. Bar 3 and 4 proceed in semiquavers and again he puts emphasis on the first and fourth beats of the 6/8 metre (Campbell, 2008).

3.4 Responses to Questions on Fingering
Should we make use of older fingering systems when playing Bach? Troskie (2008) recommends that the performer uses modern fingering. However, he suggests that in selected passages knowledge and usage of older fingering can definitely improve the phrasing, accentuation and articulation. If one is comfortable using older fingering systems in such places the playing will probably improve. There are those pedagogues who are far more rigid in this regard. Jacques Van Oortmerssen, for example, organ professor of the Amsterdam Conservatoire of Music, to this day expects all his students (even advanced students) to practice using older fingering systems and to become thoroughly acquainted with them. However, Bach himself used both older and modern fingering systems and in 1720 he still wrote teaching material with old fingering systems. C.P.E. Bach stated that his father also used modern fingering, i.e. the thumb and 5th finger. In 1820 Griepenkerl also recommended the “modern” fingering system for Bach’s keyboard works. It is also acceptable to use both toes and heels in Bach playing (Troskie, 2008). Lawack (2008) suggests that the performer should make use of older fingering practices, especially if the choice of fingers would force you to play non-legato. For example, if you have a descending line in the top part of the right hand, play all those notes with the fifth finger: you would then be forced to lift after each note to play the next note, resulting in spontaneous non-legato playing. The same effect could be achieved using “normal” legato fingerings, but then you would have think about playing
that specific line in a non-*legato* manner whereas the first option would naturally result in non-*legato* playing.

Campbell (2008) agrees with Troskie (2008) and Lawack (2008) that a knowledge of early fingering systems is important. He believes that it is important for the student and the performer to understand why certain patterns require a certain articulation. Once a good command of the early fingering is mastered with the correct sound ideal, a modern finger technique can be used.

With regards to significance of finger choice in the performance of Bach’s organ Preludes and Fugues, Troskie (2008) states that when the performer uses the modern fingering system, he or she should always strive to perfect the technical standard of the playing whilst retaining advances of the old fingering system such as clarity of texture, clear phrasing and articulation. In a similar manner, the precise rhythmic advances of playing only with the feet should be retained when using the modern heel/toe system (Troskie, 2008). Lawack (2008) agrees with Troskie (2008) that the correct choice of fingering in a Bach work is vital as it would not only contribute to the correct execution of non-legato articulation technique but it will also help that important musical motives be emphasized.

Campbell (2008) agrees with Troskie (2008) and Lawack (2008) that good finger choice is important in the performance of Bach’s organ Preludes and Fugues. He states that it will distinguish the execution of the work as being poor, good or excellent. It will also ensure a good technical skill or a good technical development (Campbell, 2008).

### 3.5 Responses to Questions on Ornamentation

The reader is referred to the Organists’ questionnaire, question 16, Appendix A, where respondents were asked to give their views on the execution of Baroque ornaments, with specific reference to bar 43 in the A Minor Fugue, BWV 543. Although Troskie (2008) agrees that ornaments in Baroque music should mostly be executed from the note above the main note, he warns that this will not always be the case. Trills can start
on the main note if a leap to the note above is involved or if the above note precedes the trill, as is the case in this example. Trills can also start on the main note if a characteristic interval is involved or if the trill functions as a pedal point. In this example the trill would start on the main note (g#). A mordent (Pralltriller) will always start on the main note (Troskie, 2008). Lawack (2008) believes that Baroque ornamentation should always be approached from the note above the ornamented note. He states that this is done to achieve a perceived suspension at the beginning of the ornament followed by the dissonance created by the alternating notes in the ornament. He suggests that the performer should take note of the fact that Baroque ornaments need to be played slower than for example Classical ornaments, as this is believed to have been common practice during the Baroque period (Lawack, 2008).

For Campbell (2008), it is a matter of taste and various schools differ in opinion, but he will always execute ornaments from the note above, even if the preceding note is the same (Campbell, 2008).

Should ornaments in Baroque music always be played in time with the rest of the music? The reader is referred to the Organists’ Questionnaire, question 17 in Appendix A, where respondents were required to give their views on the execution of the pedal trill in bars 179-183 of the Fugue in D Minor, BWV 538. In this case, Troskie (2008) is of the opinion that the trill functions as a pedal point and therefore it should start on the main note (E, in this example). The trill can consist of equal sixteenth notes. If one regards the trill to also have an expressive character, (e.g. in the Chorale Preludes), it can start in slower notes, accelerate in the middle and again go slower towards the end (Troskie, 2008). Lawack (2008) feels that it is substantially more difficult to play the pedal trill in bars 179-183 of the Fugue on D Minor, BWV 538, in a free manner: starting off slower, accelerating in the middle, and slowing down towards the end. He opposes the idea of compartmentalizing ornaments into smaller, manageable units. Lawack (2008) is of the opinion that if Bach wanted the performer to play four groups of alternating semiquaver F’s and E’s, he would have written it as such. The fact that he chose to use ornamentation is a clear indication that at this point in the music he would have liked some tension, the same tension that would be brought about by the playing
of the free ornament in contrast to the strict semiquaver movement in the parts above the pedal part (Lawack, 2008).

Campbell (2008) is of the opinion that ornaments should be played rather freely. One should take registration and register into account. This specific trill is low in register and will be played with 16’ stops, for the pipes to react and for the pitches to be audible, it should not be played too fast (Campbell, 2008).

Should ornaments be added if Bach has not specified their use? The reader is referred to the Organists’ Questionnaire, question 18, Appendix A, where respondents were asked to give their views on the execution of bars 1-8 from the Fugue in D Minor, BWV 538. Troskie (2008) believes Bach used ornamentation more economically than his predecessors (Lübeck, Buxtehude and Walther), where the insertion of ornaments and richly elaborated key notes with trills form part of the earlier *Stylus Phantasticus*. Ornaments not indicated by Bach himself should therefore be used very sparingly; in this example Troskie is of the opinion that only a trill could be added, starting on the main note (E) in bar 7 and bar 3 - 4, but that no other ornamentation should be used elsewhere in this fugue subject (Troskie, 2008). Lawack believes that there is a place for ornamentation in places Bach did not specifically indicate it as such. If it is used in specific places to beautify or enhance the musical line, he would support this usage. He suggests that the performer takes caution to ensure that ornamentation that is employed too freely does not detract from the original beauty of the music (Lawack, 2008).

Campbell (2008) is convinced that Bach would have played all of his works differently every time. It is important to keep within the character of the style. Here one could for instance opt for *Plein jeu* registration in the French Classical tradition and add numerous trills and ornaments. Campbell (2008) suggests that the performer could add a trill on beat 2 (E) in bar 1, a mordent on beat 2 (B-Flat) in bar 3, a mordent on beat 2 (D) in bar 4, a trill on the second part of beat 2 (B-Flat), a trill on the second part of beat 2 (G) in bar 6 and a trill on beat 2 (E) in bar 7 (Campbell, 2008).
Can ornaments sometimes be omitted in places where Bach has specified their use? The reader is referred to the Organists’ Questionnaire, question 19, Appendix A, where respondents were asked to consider this question with reference to the trill indicated in bar 62 of the A Minor Fugue, BWV 543. Troskie (2008) feels that we should not leave out ornaments specifically indicated by Bach himself. This particular trill sign is rather ambiguous. When the termination is written out (as in the given example), however, it usually means that a longer trill should be played. Lawack (2008) also believes that the performer should attempt to play all ornamentation, especially those specified by Bach himself. These ornaments should be practiced until perfected. However if, for some reason, performers simply cannot play these ornamentations in a controlled and confident manner, it is probably better that they be omitted (Lawack, 2008).

Campbell (2008) agrees with Troskie (2008) and Lawack (2008) that we should not omit ornaments specified by Bach himself. He believes that there should be very good reasons to omit an ornament. He agrees with Lawack (2008) that the only reasons should be technical unstability or that there is a compositional irregularity (Campbell, 2008).

With regards to the tacit knowledge he has acquired throughout his career, Troskie (2008) points out the following valuable sources:

- His post-graduate organ studies in Holland, where he undertook performance practice and master classes from Dutch authorities such as Cor Kee, Ton Koopman, Gustav Leonhardt and Ewald Kooiman
- In addition to all that he has learnt from the above-mentioned people, he has attended many concerts and listened critically to recordings (comparing vastly different recordings) by world renowned organists, such as Helmut Walcha, Ton Koopman, Jacques Van Oortmerssen, Harald Vogel, Marie-Claire Alain and Jean-Claude Zehnder. Many of these performances were given on authentic Baroque organs. The construction of these instruments - measurements,
compass, shapes of key- and pedalboards - all play a role in the performance of the music.

- He believes he has also learnt a great deal from the interpretation of Baroque music by conductors such as Nicolaus Haroncourt, Kurt Thomas and Ton Koopman; also by flute and recorder specialists such as Frans Vester and Frans Brüggen, and gamba players such as Wieland Kuijken and others.
- Troskie (2008) continues to build his knowledge – both tacit and explicit - by reading internationally recognized journals on performance practice such as Early Music and Het Orgel.
- From 1972-1981 he taught the subject Performance Practice at UNISA\(^1\) and acted as examiner on national and international adjudication panels together with specialists in the field of performance practice. These experiences have also enriched his own views considerably.
- Apart from various other sources on the subject, Troskie believes that he has learned much from authoritative publications on Performance Practice of Bach's organ music, such as those of Professor Jacobus Kloppers (*Die Interpretation und Wiedergabe der Orgelwerke Bachs*. D.Phil Thesis, Frankfurt am Main, 1965) and Herman Keller (*Die Orgelwerke Bachs*. Leipzig, 1948).

For Lawack (2008) the most valuable source of information with regard to any study has always been the lessons he received from his teachers and lecturers. When teaching others, he still relies heavily on the lessons he learnt from his organ teachers regarding Baroque performance practice. He continues to apply these principals in countless pieces of music. He feels that it does not matter how many books a person reads on the topic of Baroque performance practice, it will never have the same impact as when someone takes the time to explain and demonstrate a certain technique to you. As valuable as these lessons may be, however, performers should continue to read up on a topic such as Baroque performance practice (Lawack, 2008).

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\(^1\) The University of South Africa
For Campbell (2008) the most valuable source of tacit knowledge came from his listening to recordings of reputable Baroque scholars, master classes and playing on various period instruments. He states that once you play on the instruments themselves, you get a very good picture of what could be done (Campbell, 2008).

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CHAPTER 6
CONCLUSION TO THIS STUDY

In this treatise I have provided a critique of Baroque performance practice, with specific reference to the organ Preludes and Fugues of Johann Sebastian Bach. Within the context of Bach’s life history, I have given an account of the circumstances under which his organ works arose, as well as the specifications of the different instruments with which he was acquainted and on which he would have performed his works, or heard them performed by others. I also discussed Bach’s so-called ‘generic’ keyboard works, and concluded that it is possible to distinguish two categories of such works, namely:

- Works written for the organ
- Works written for other keyboard instruments such as the clavichord, harpsichord and fortepiano.

The following topics pertaining to the performance of J.S. Bach’s organ works were discussed, both from the point of view of standard reference works on this topic as well as from that of practitioners in the field:

- Registration
- Tempo
- Rhythm
- Fingering
- Articulation
- Phrasing
- Ornamentation.

Regarding registration, it is clear that the performer will use a *plenum* registration when performing the organ Preludes and Fugues of Johann Sebastian Bach. The basic *plenum* consists out of 16’, 8’, 4’, 2 2/3’, 2’ and Mixture Diapasons on the Great Manual and Pedal with reeds added to the pedal. One could also add 8’
Stopped Flutes as well as a Tertian or Sesquialter to certain pieces. It is essential for the organist of today to become acquainted with the type of organ known to Bach. Knowledge of this will be of great value in working out the *plenum* for Bach’s organ works.

Tempo is regarded as being the responsibility of the performer and is also determined by factors such as the mood of a particular piece as well as the acoustics of a particular building. The two time signatures, **C** and **2/2** seems to have been problematic to interpret in the Baroque and even today. The performer is advised that whenever he or she encounters **2/2**, they should think in terms of two beats to a bar instead of counting four beats in a bar when using **C**.

Although performers have become accustomed to using modern-day fingering systems, it is good to have knowledge of older fingering systems since these can be used in certain places to improve the phrasing, accent and articulation. Good fingering will naturally result in neat articulation and effective phrasing. Ornaments will almost always start on the main note and the number of repercussions will be determined by the emotional content of the works.

From the discussion on the current debate surrounding Baroque performance practice and notions of authenticity as seen from both the modernist and postmodernist points of view, I have come to the following conclusions:

- The modernist ideal is to “re-create” historical performances, since it regards the composer, the written musical score and any supporting historical factual evidence as the only basis for musical authenticity. According to this ideal, therefore, there is only one way of performing the music, and that is what is perceived to be the “author’s” way.

- The postmodernist argues that, for various reasons, this cannot be done. We do not know exactly how performances on early organs sounded in the Baroque period, and we cannot reproduce that sound today, even on the best Baroque style organs. Notated scores do not provide complete
evidence of historical performance practice. In addition, modernists neglect to consider the reception history of such works and the contingency of human involvement in musical performance. Postmodernists believe that we cannot reproduce historical performance since they regard the performer as the “author” of a particular piece of music or musical text, in the sense that music is seen to only exist in its performances. Therefore, since no two people will perform a piece of music in exactly the same way, every situation in which music “happens” will be different. Thus, every new performance erases the previous one and every musical performance is seen as a “re-composing” of that particular work by the performer.

Based on this postmodern notion of authenticity, a chapter on tacit knowledge followed wherein I argue that we cannot learn all there is to learn about Baroque performance practice from books alone. Every individual possesses tacit knowledge. Such knowledge encompasses everything passed on to us from different teachers, from critically listening and comparing CD recordings by world-renowned organists, from attending concerts and critically listening to the playing of others, as well as from reflecting on our own playing. Tacit knowledge is a very valuable source of information and we as performers and teachers of music can learn a lot from the tacit knowledge of other people, as I have done from my analysis of the performances by Marie-Claire Alain and Barry Jordan, as well as from the questionnaire responses of three well-known organ pedagogues, Albert Troskie, Antonio Lawack and Colin Campbell.

I trust that in so doing I have not only been on a journey of discovery about the music of Bach that will stand my own career as organ performer and teacher in good stead, but that it will also serve as a valuable resource to others who wish to embark upon this same journey in future.
**SOURCES**


APPENDIX A

ORGANISTS’ QUESTIONNAIRE.
ORGANISTS’ QUESTIONNAIRE

INSTRUCTIONS
This is a questionnaire on Baroque performance practice, to be answered with specific reference to the teaching and performance methods you find appropriate to the Preludes and Fugues for Organ by J.S Bach. The questionnaire comprises 20 questions in six sections. Please answer these in the spaces provided below each question. Should you require more space for your answer, please feel free to augment the space provided if you are responding electronically, or to attach a separate sheet if you have received this questionnaire by post.

SECTION A: REGISTRATION

Question 1
Describe the stops you would recommend for the plenum when performing or teaching Bach’s organ Preludes and Fugues.

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Question 2
Would you recommend that the same registration be maintained throughout a performance of a Bach organ Prelude and Fugue? Please motivate your answer.

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SECTION B: TEMPO AND RHYTHM

**Question 3**
What, in your opinion, are the factors that performers should take into consideration when choosing a suitable tempo for the Bach organ Preludes and Fugues?

**Question 4**
There is some difference of opinion amongst organ scholars regarding appropriate interpretations of the time signatures C and 4/4 in Bach’s organ works. Consider the following excerpt, bars 1-8 from the Fugue in D Minor for organ, BWV 538.

![Music notation]

Would you recommend that the performer interpret the metre in this excerpt as 4 crotchets per bar, or 2 minims per bar? Please motivate your answer.
**Question 5**
Should performers always provide a literal interpretation of time words in the organ works of J.S. Bach, OR should these serve only as a guideline in tempo choice? Please motivate your answer with specific reference to the metronome tempo at which you would interpret the *vivace* indication in the following excerpt from the Second Trio Sonata, BWV 526.

\[\text{\textit{Vivace}}\]

\[\begin{align*}
\text{\textbf{Question 6}}
\text{Should Bach’s organ Preludes and Fugues be played in strict time, or is rhythmic flexibility appropriate in the interpretation of these works? Please motivate your answer.}
\end{align*}\]
**Question 7**
Consider the following excerpt, bars 1-3 of the A Minor Prelude for organ, BWV 543, where Bach has provided no tempo indication. Would you recommend that this passage be played at a fast tempo or a moderate tempo? Please motivate your answer.

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**Question 8**
There is some difference of opinion amongst organ scholars on the stylistically most appropriate interpretation of dotted rhythms in Bach's organ works. How, in your opinion, should the dotted minims and crotchets of the upper melodic lines be interpreted in the following excerpt, bars 30-32 of Fugue in D Minor for organ, BWV 538?
SECTION C: ARTICULATION AND PHRASING

**Question 9**
Do you consider non-legato articulation to be appropriate in the performance of Bach's Preludes and Fugues for organ? Please motivate your answer.

**Question 10**
If you answered question 9 in the affirmative, how would you explain to an organ student the non-legato articulation that you consider appropriate?

**Question 11**
If you answered question 9 in the affirmative, what finger and pedal exercises would you recommend to a student in order to improve non-legato playing?
**Question 12**

If you answered question 9 in the affirmative, how do you recommend that emphasis be created on strong beats when playing non-legato in the following excerpt, bars 4-6 of the A Minor Prelude for organ, BWV 543?

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**Question 13**

What phrasing do you recommend in the following excerpt, bars 1-4 of the A Minor Fugue for organ, BWV 543? Please motivate your answer.

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SECTION D: FINGERING

**Question 14**
Do you recommend that early fingering systems be used in the performance of Bach's Preludes and Fugues for organ? Please motivate your answer.

**Question 15**
What, in your opinion, is the significance of fingering choice in the performance of Bach's organ Preludes and Fugues?
SECTION E: ORNAMENTATION

**Question 16**
Should ornaments in Baroque music always be played from the note above the main note? Please motivate your answer, with specific reference to the following excerpt, bar 43 of the A Minor Fugue, BWV 543.

![Musical notation image]

**Question 17**
Should ornaments in Baroque music always be played in time with the rest of the music? Please motivate your answer with specific reference to the pedal trill in the following excerpt, bars 179-183 of the Fugue in D Minor, BWV 538.

![Musical notation image]
Question 18
Would you recommend that ornamentation be added to passages where Bach has not provided specific instructions in this regard? Please motivate your answer with specific reference to the following excerpt, bars 1-8 of the D Minor Fugue, BWV 538.

![Musical notation]

Question 19
Would you recommend that ornaments ever be omitted in cases where Bach has specified their use? Please motivate your answer with specific reference to the following excerpt, bar 62 of the A Minor Fugue, BWV 543.

![Musical notation]
SECTION F: TACIT KNOWLEDGE

**Question 20**
Aside from any knowledge you may have gained from books on the subject, what, in your experience, have served you as valuable sources of information in your approach to Baroque performance practice?

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Thank you for your valued contribution to this research