GROWTH AND DEVELOPMENT OF MUSIC PRINTING BY GERMANS IN ROME AND VENICE BEFORE 1501

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CHAPTER I

INTRODUCTION

Letterpress printing and music printing began in Germany in the fifteenth century. During the period from 1450 to 1500, a great number of German printers migrated to Italy and other parts of Europe where they continued to practice their art under more favorable political, social and economic conditions. This thesis is concerned with the development of music printing by these German printers in Italy before Ottaviano dei Petrucci printed the first collection of polyphonic music, the Harmonice Musices Odhecaton A, at Venice in 1501. The study is restricted specifically to the German music printers in Rome and Venice.

The development of this thesis is threefold: an outline of the early history of music printing beginning with the printing of the Mainz Psalter in approximately 1457; an examination of the political, social and economic conditions in Germany which led to the migration of the German printers into Italy; and an investigation of the music printing activities of specific German printers in Rome and Venice, their printing methods, and the influence of their work on Italian music printers of the same period.

Much research has been done in the area of letter-press printing, but the early years of music printing and its history have been largely ignored by contemporary researchers. Very few studies on music printing in the incunabula period have been undertaken in the last decade. Many music history texts cite the date of the Odhecaton; however, few mention the development of music printing which led up to the first printing of polyphonic music. The Odhecaton could not have been printed had it not been for the experimentation and development of music printing techniques by earlier printers. Most sources fail to acknowledge the tremendous impact of music printing on the growth, development and dissemination of music during the incunabula period and in subsequent centuries.

Very few references exist on the history of music printing; no sources exist specifically on the activities of the German printers in Italy. A few German scholars have published research materials in this area; fewer music encyclopedias provide information on music printing. Significant research has been done by Kathi Meyer-Baer in the area of liturgical music printing of the incunabula period; Otto Kinkeldey's article, "Music and Music Printing in Incunabula," constitutes another prime source. Books and articles dealing with the general history of

music printing exist and were used as source material for this thesis. General histories of letterpress printing also include brief references to music printing during the fifteenth century.

Music printing probably would not have developed without the invention of printing text from movable type. Johannes Gutenberg is credited as the inventor of movable-type printing in Europe. Gutenberg was born in Mainz, Germany, between 1394 and 1399. His family was banished from Mainz in September of 1428, and the Gutenberg name is found in Strasbourg between 1434 and the spring of 1444. By October 19, 1448, Gutenberg has returned to Mainz.

In a lawsuit of 1439 is found a reference to what might be the earliest allusion to letterpress printing. Although the word "printing" does not appear in the sixteen surviving reports by the forty persons who testified in the lawsuit filed against Gutenberg while in Strasbourg, it is generally assumed that Gutenberg was involved with the development of the printing technique. Another lawsuit filed against the printer in Mainz in 1455 provides accurate evidence that printing was a reality. In 1450, Gutenberg borrowed money from Johannes Fust, a Mainz goldsmith and financier; two years later the former borrowed more money and Fust was made a partner in Gutenberg's

business. When Gutenberg was unable to pay back the sum he had borrowed, Fust took over the printing shop and recalled Peter Schoeffer from Paris to be his partner. Fust and Schoeffer became outstanding printers at Mainz.

Fust and Schoeffer printed the Mainz Psalter as early as 1457, and this certainly was the first significant step in the history of music printing. While Fust and Schoeffer lacked the knowledge of how to print music, they left blank spaces in the Psalter to be filled in with hand-written music. Their concern with getting music notation onto the printed page was realized a few years later by the incunabula music printers. Music printers developed and perfected their art; by 1501 Petrucci was able to print polyphonic, mensural music. From the Middle Ages through the eighteenth century, and before the time when printers began to print music in their publications, musicians were forced to read music from hand-copied manuscripts. Although the calligraphy of the copyists was readable, the task of reproducing music by this method was time-consuming. Hence, during the late Middle Ages, very little music was being circulated in Europe; most of the hand-copied manuscripts belonged to the nobility and the churches who could afford the luxury of owning such manuscripts. With the advent of music printing,

music became available to more people at lower costs. During the incunabula period, music printing was as yet an expensive process. Only the Church and the nobles could afford to give patronage to music printers. In time and over centuries, the dispersion of printed music was to have a tremendous impact on the growth and development of music in western civilization.

CHAPTER II

HISTORY OF MUSIC PRINTING

Letterpress printing was well established before music printing began. The German printer Gutenberg had solved the initial problems in the development and perfection of the printing technique, yet many problems remained for the early printers who attempted to reproduce music notation. Music printers faced the additional problems of printing the staff and the notes, and the spacing in relation to text. In addition, staff, notes and text required special organization and coordination. The scope of the problem can be understood more fully if it is realized that while a group of approximately 80 characters is required to print text, more than 330 characters are needed to print music.[1] Music printing in this incunabula period up to 1500 can be found in large encyclopedic works of a general nature and also in theoretical books dealing with music itself. But by far the largest source of printed music in this period can be found in the liturgical books of the Roman Catholic Church.

Printers of both liturgical and non-liturgical music initially faced the same problems, but they attempted solutions in different ways. Some of the procedures em-

ployed for printing books with music were: to leave a blank space in which to fill in the music later by hand; to print only the staff and to add the notes by hand; to print only the notes and add the staff by hand; to print both staff and notes separately in a "double-impression" process. These methods do not represent a continuous development in music printing from the time when printers left blank spaces to the time when they were able to print both staff and notes. All of these printing methods existed simultaneously.[2] The printers used the printing procedures to provide for special needs at a particular time. Socio-economic factors may have influenced the music printers in their choice of procedure. Music printers who chose to employ printed music, whether it was simply the notes, the staff, or both, were faced with added costs. The requirements for larger quantities or paper, the use of music type, and the more costly double-impression technique all were reasons contributing to the expense of music printing. Another possibility for the absence of printed music in liturgical books could be that the Gregorian melodies were not yet standardized in the fifteenth century and often varied from diocese to diocese. The printer could print only the staves, while the notes were left to be filled in by a person familiar with the variants of

the melodies in a particular area.[3] The technical ability of the printer could hardly have influenced the printing procedure since printers published books without music following periods during which they printed books with music.

The two methods of printing music were: 1) printing from type; 2) printing from a woodblock or metal-cut. The particular method to be employed depended largely on the type of book being printed and on its function. Earlier scholars thought that woodblock printing was an evolutionary step toward printing with type. This idea has now been disputed. Contemporary scholarship supports the idea that printing from woodblocks was used generally for theoretical and non-liturgical books, while printing from type was used mainly in liturgical printing.[4] The printers' reasons for choosing one method over the other are now clear. Theoretical books were read in schools and universities during the late 1400s. While the printed texts from this era might differ slightly in various editions, the musical examples and illustrations were usually identical.[5] Thus, by using a woodblock for this method of music reproduction, the same "cut" could be used over again in the same book or in different books.[6] Another advantage of woodblock printing was its capacity for notating the measured music, i. e. the mensural notation, of this

period. Mensural music was notated with six or seven note shapes and an equal number of rests. Printing from type did not offer the above-mentioned advantages, but it was ideally suited to print the Gregorian chant of the liturgical books. In the latter the rhythm is not indicated; rhythm is determined by text. The great variety of characters needed in the melodies prevented repeated printings offered by the woodblock method. But woodblock printing was not always limited to non-liturgical books, nor was printing from type restricted only to liturgical books. Some non-liturgical books in the Renaissance were printed from type, and a few liturgical musical examples printed from woodblocks have been discovered.[7]

I. NON-LITURGICAL PRINTING

The oldest attempts at music printing can be found in theoretical books on music. In 1922, Johannes Wolf listed 103 books about music in the incunabula period.[8] Some of these were encyclopedic in nature and their contents did not necessarily deal solely with music. Kinkeldey listed 37 items as "strictly musical;" those which dealt specifically with music from either a scientific or practical viewpoint.[9] Some of these early works include:

1462. Conrad von Zabern's Opusculum valde singulare et rarum, noviter cum magna diligentia collectum

tractans de octo nota dignis usibus sive utilitatibus instrumenti musici dicti monochordum, printed by Fust and Schoeffer, Mainz.[10]

1474. Conrad von Zabern's De modo bene cantandi choralem cantum in multitudine personarum opusculum rarissimum novissime collectum anno Domini M ccccIxxiiij, printed by Fust and Schoeffer, Mainz.

1480. Franchinus Gafurius' Theoricum opus armonice discipline, printed by Franciscus de Dino, Naples.

1480. Bartolomeo Ramis de Pareja's Musica practica, printed by Baltasar de Hiriberia, Bologna.

1487. Nicolaus Burtius' Musices opusculum incipit: cum defensione Guidonis Aretini: adversus quendam Hispanum, veritatis prevaricatorem, printed by Ugo de Rugeriis, Bologna.[11]

1488. Hugo von Reutlingen Sprechtsart's Flores musice omnis cantus Gregoriani, printed by Johann Prüss, Strasbourg.[12]

1488. Joannes Tinctoris' De inventione et usu musicae, printed by Francesco del Tuppo, Naples.

1491. Giovanni Spataro's Musices ac Bartolomei Rami Pareie, Ejus preceptoris, honesta defensio in Nicolo Burtii Parmens, opusculum, printed by Plato de Benedictis, Bologna.

1491. Jacobus de Reno's Tractatus brevis . . . in laudem musice artis et de eius utilitatibus, printed by Gerardus Leeu, Antwerp.

1492. Franchinus Gafurius' Theorica musice, printed in Milan.[13]

1492. Marcos Duran's Ars cantus plani composita brevissimo compendio "Lux Bella" nuncupata, printed in Seville.

1492. Francesco Caza's Tractato vulgare de canto figurato, printed by Leonard Pachel for Joanes Petrus de Lomacio, Milan.[14]

c.1495. Joannes Tinctoris' Terminorum musicae

diffinitorium, printed by Gerardus de Lisa, Treviso.[15]

1495. Guillermo de Podio's Ars musicorum sive commentarius musice facultatis, printed by Peter Hagenbach and Leonard Hutz for Jacob de Villa, Valencia.

1496. Franchinus Gafurius' Practica musice, printed by Guillaume Signerre of Rouen, in Milan,[16]

1496. Franchinus Gafurius' Angelicum ac divinum opus musice, printed in Milan.[17]

1496. Michael Keinspeck's Lilium musice plane, printed by Michael Furter, Basle.[18]

1498. Juan Marcos Duran's Glosa sobre "Lux Bella," printed in Salamanca.

1499. Anon. Compendium musices, printed by Giovanni Battista Sessa, Venice.

1500. Bonaventura de Brixia's Regula musicae planae, printed by Leonard Pachel for Johannes de Legnano, Milan.

1500. Bonaventura de Brixia's Breviloquium musicale, printed by Angelus Britannicus, Brescia.

1501. Balthasar Prasbergius' De Musica chorali liber, printed by Michael Furter, Basle.[19]

One of the procedures adopted by early printers was simple to leave blank spaces on the page so that the music could be filled in later by hand. This was the case with Gafurius' Theoricum opus of 1480, with Ramis de Pareja's Musica practica of 1482, and with Francesco Caza's Tractato vulgare de canto figurato of 1492.[20]

Few type-printed musical examples are found in non-liturgical books. One of the earliest examples is J. Charlier de Gerson's Collectorium super Magnificat

printed by Conrad Fyner in Esslingen in 1473. This book does not deal with music but is rather a commentary on the text of the "Song of Mary." In one passage of text, the harmony was symbolized with the five notes of the descending scale, sol, fa, mi, re, ut. The notes were printed with stamps called "patronen" (cartridges) made of metal; the latter could have been inverted printing letters.[21] No staff lines were printed here; they were to be added by hand.[22] A Latin grammar book included another example of music printed from type but without staff lines. It was Franciscus Niger's Grammatica brevis printed at Venice in 1480 by Theodorus Francus, also called Theodor von Würzburg.[23] Niger's book illustrates the rhythms of five poetic meters with musical notes printed above the text. These gothic-shaped notes occur in three species, the longa, brevis and semibrevis, the mensural forms of the 1470s. Kinkeldey noted that C-clefs appear before the rows of notes, and that if a true musical notation is being implied, it is the earliest known type-printed secular music.[24] Ralph Higden's Polichronicon printed by Wynkyn de Worde in 1495 in England is the first attempt to illustrate both the staff and notes with type in a theory book.[25] De Worde printed the notes with an arrangement of quads or inverted capitals on a staff of

eight lines to show the four consonances of Pythagoras.[26] Musical examples appeared in the second edition of the Polichronicon; the first edition was printed by Caxton in 1482 with spaces left to be filled in later by hand.

Michel de Toulouze, a French printer at Paris, is now regarded as the first printer of measured music from movable type. Toulouze printed four books with music and they were: L'art et instruction de bien dancer, 1488; Guillaume Guerson's Missae solemniores totius anni, c. 1500; Guerson's Utilissime regules, c. 1500; and the Processionarium Parisiense, before 1497. Until this century, Petrucci had been cited as the first printer of measured music from movable type, but it has now been established that the dancing instruction book printed by Toulouze in 1488 was also printed with this procedure. The musical portion of the book contains 49 melodies.[27]

Again, the largest number of music theory books were printed from woodblocks or metal-cut blocks. With this method, the staff and notes were made to stand out in relief, and when the block was securely locked in the form with the letterpress, the entire page was printed in a single impression.[28] Examples of woodblock or metal-cut printing in non-liturgical books are: Burtius' Musices opusculum, 1487, printed by de Rugeriis, Bologna;

the second edition of Gafurius' Theoricum opus, 1492, printed by Mantegatius, Milan; von Reutlingen's Flores musice omnis cantus Gregoriani, 1488 (67 pages contain music); second edition of Gafurius' Theorica musice, 1492; first edition of Gafurius' Practica musice, 1496, Milan; Keinspeck's Lilium musice plane, 1496; Gregory Reisch's Margarita philosophica, 1496, Heidelberg; the works of the two Durans in Spain; and the Legend of Saint Ursula, 1497, printed by Küstler in Strasbourg.[29]

Music printing in the incunabula period can also be found in dramas. The first secular printed music which appeared in Rome was included in Marcellinus Verardus' Historia Baetica, a drama of the conquest of Granada, performed in 1492. It was printed the following year from woodblocks by Eucharius Silber.[30] Another example of music in a drama is the Scenica Progymnasta by Reuchlin, a play to be performed in a Renaissance school. This printed music, also from woodblocks, was an interlude in the Varia Carmina of Sebastian Brant published by Grueninger at Strasbourg in 1498.[31]

II. LITURGICAL PRINTING

Music found in liturgical books is the primary source of music printing from the incunabula period. A

preponderance of printed liturgical books containing music examples exist and only a cursory examination of the printing procedures will be included. Approximately one-half of all liturgical music book printing was done in Italy. The remainder was divided about equally between Germany and France.[32] By the year 1476 Germans were printing liturgical books in Constance, Basle and Strasbourg. Meyer-Baer lists ten editions with printed music from these cities for the years between 1476 and 1488. Other German centers of printing were Speyer, Nuremberg, Leipzig, Passau, Eichstadt, Würzburg, Bamberg and Augsburg. Recent research in this area has established the contributions from French artisans in the history of music printing. Paris, Lyons, and Rouen were the leading centers. Paris itself has been credited with nineteen books with printed music, second only to Venice with 36.[33] As a printing center, Paris had seven presses and ten printers. In addition, five books with printed music came from Spain during this period. The contributions from music printers in Italy will be discussed in Chapter Four.

The reasons for the large amount of music printing found in liturgical books were related to social and economic conditions. Only privileged persons could afford the luxury of an education; few people could afford to

buy a printed music theory book. The majority of the population during the fifteenth century was illiterate. Yet, all parish churches needed missals, service books, books for special services and hymnals. The large quantity of liturgical books which the printers were able to create was influenced by a long tradition of beautifully drawn manuscript books. The example provided by these hand-drawn liturgical books simplified the task of the printer. He had a guide to follow; the only variation was in the manner of reproduction. The liturgical music printers arrived at a method that so closely resembled the manuscript copies that it is often difficult to distinguish between the two without close examination. The characteristics of Gregorian chant, its lack of notated rhythm and the comparatively small range of the melody, also provided simplification of printing methods for the music printers.

Not all liturgical books contain printed music; whether the music was printed depended on the purpose for which the book was printed. In general, books to be used for private devotion or in the schools did not include music, while books for use in the church did. Liturgical books may be classified according to their role in the church liturgy. Missals contain the portions of the Mass

which are recited and sung by the priest. Recitations for the choir are included also. Missals usually follow the church calendar, beginning with the first Sunday of Advent. Weale lists 459 Missals printed in the fifteenth century.[34] Music printing contained in these books is usually found before the Canon, in the part before and in the Canon, and sometimes after the Canon. Most Roman Missals included music before the Canon only, and it was sometimes inserted "in a single quire consisting of from sixteen to thirty leaves devoted solely to this purpose."[35] Other types of Missals were: those published for certain dioceses containing appropriate melodies printed for Masses celebrating feasts of local saints; Missals published for certain ecclesiastical orders in which only the staves were usually printed; and Missalia specialia, books containing Masses to be offered for special purposes, none of which contained printed music. All Graduals printed in the fifteenth century contained printed music. The Gradual does not include the Canon, but like the Missal it follows the church calendar beginning with the first Sunday of Advent. Bohatta lists eight Graduals from this time period, and Meyer-Baer adds one more to this list.[36] Six Antiphonaries exist according to Meyer-Baer. These contain all melodies for the prayer service, those to be

sung by the choir and those to be performed by the cantor. Printed music occurs throughout all six Antiphonaries. Only one Responsoriale is extant from this period and the music is printed. Most books published for special services contain printed music.[37] The remaining liturgical books of the Catholic Church are the Hymnals, Sequentiaria and the Psalters. Most of these were designed for private devotion or for textbooks, and the significance of music printing in these books is little.

Printers employed various procedures in printing liturgical books. Sometimes a blank space was left and the music filled in by hand. This was the procedure employed by Fust and Schoeffer who printed the Mainz Psalter in 1457.[38] This first liturgical printed book contained the text of the psalms as found in the vesper services and the minor offices of the Church. At the beginning of each psalm is the blank space, apparently to be filled in with the staff and with the opening phrase or closing formula of the chant melody. Two colors were used in the printing, a practice which was later to be of tremendous significance in liturgical printed books. The Mainz Psalter was printed in black ink with its colophon printed in red ink. The printing method used in liturgical books was type-printing. Printing from type in liturgical books was generally the "double-impression" process, and

was a twofold or threefold procedure. In this process the staves were printed first in red ink; the notes were printed second in black ink. The text was generally printed with the notes and the vertical strokes; the staves were printed with the initials and the rubrics.[39] The "Congreve" method of printing both red and black in one impression could be used only when the spaces for both colors did not coincide, an unusual case when putting notes on the staff. The first dated liturgical book printed with the "double-impression" process was Ulrich Han's Missale Romanum of 1476.

Fust and Schoeffer's use of two colors in printing led to the general use of red staves and black notes in liturgical music printing. But the use of more than one color was not an innovation; the custom of different colored lines had been in use since the eleventh century and sometimes colors were for notes to distinguish pitch or duration. Occasionally as many as four colors had been employed: yellow, red, black and green. Liturgical printing of the fifteenth century was responsible for simplication and standardization of color printing procedures.

Printers of liturgical music faced several problems in using type; one of the most difficult was the problem of printing the staff. Three methods of printing

staff lines can be identified: small vertical breaks in the lines indicate that the printer used several pieces of type side by side to fill the width of the column, the lengths may be equal or unequal; if the lines are rather thick then the printer probably used one piece of type of either wood or metal; when curves are seen in two lines in the same place, the printer probably used metal rules.[40] The printers faced additional problems in aligning notes with the staves in the double-impression process. There were two difficulties: sometimes the text for a single note needed more room than the note itself allowed; occasionally the music needed more room than the text when the melody had musical ornaments, a common characteristic of plainchant.

When liturgical books contained printed notes, these notes appeared in one of two forms, Roman or Gothic.[41] In general, the Roman style was preferred in Latin countries, while the German countries used mainly Gothic types.[42] The printer of a specific liturgical book can often be identified by his type. Many variations can be found in the printers' notes, ligatures, catchnotes and clefs, and all these variations provide clues for those attempting to classify liturgical publications and to identify printers. A more detailed discussion of the printing will be found in Chapter Four.

NOTES TO CHAPTER II

1 Kathi Meyer and Eva Judd O'Meara, "The Printing of Music: 1473-1934," The Dolphin, No. 2 (1935), 171.

2 Kathi Meyer-Baer, Liturgical Music Incunabula (London: The Bibliographical Society, 1962), p. xxx.

3 Ibid.

4 Ibid., p. xxiii.

5 Ibid., pp. xxiii-xxiv.

6 Alfred Pollard, Fine Books (New York: Cooper Square Publishers, Inc., 1964), p. 21. "We find the same woodblocks used for five or six successive editions, and then, in many cases, enjoying a second lease of life as job-blocks, used at haphazard by inferior printers. It is clear, therefore, that while it was a much more difficult and laborious business to cut the letterpress of a book on blocks of wood than to set it up with movable types, when the blocks were once made much more work could be got out of them." The use of woodcut music continued into the sixteenth century.

7 Meyer-Baer, op. cit., p. xxiv, citing R. Molitor, Deutsche Choral-Wiegendrucke (Regensburg, 1904). The four liturgical woodblock printings mentioned by Molitor are: the Obsequiale by Ratdolt, 1487; the Missale Romanum by by Spira, 1493; the Ordo infirmum inunguendi, after 1500; the Agenda Moguntinensis by Pruess, c. 1490.

8 Otto Kinkeldey, "Music and Music Printing in Incunabula," Papers of the Bibliographical Society of America (1932), 91, citing Johannes Wolf's supplement to the facsimile edition and translation into German of Francesco Caza's Tractato vulgare de canto figurato (Milan, 1492). The facsimile was published in Berlin, 1922.

9 Ibid., p. 93.

10 W. Turner Berry and H. Edmund Poole, Annals of Printing (London: Blandford Press, 1966), p. 15. "This is the earliest known printed book dealing exclusively with music. It is a tract of twelve leaves and deals with the use of the monochord."

11 This is the first book in which extended use is made of music printed from a woodblock. The book was written in defense of the system of hexachords as used by Guido of Arezzo and against the theories of the contemporary Spanish theorist, Ramis de Pareja. The book contains the Hymn of St. John the Baptist in mensural notation, the other music of interest is a brief contrapuntal piece regarded as the earliest example of printed polyphonic music. A facsimile of the hymn may be found in Barclay Squire, p. 114; Robert Steele, fig. 3. A facsimile of the contrapuntal piece may be found in Grove's Dictionary "Printing of Music;" Littleton, p. 17.

12 Kinkeldey, op. cit., p. 101. "The whole practice of plainsong is discussed with copious musical illustrations. The melodies are noted on a five-line staff in the angular note forms known as Gothic neumes. Sixty-seven pages contain music, most of them full-page cuts. They are followed by a short illustration of the hexameter rhythm printed on four lines with mensural note forms - semibreves and minims." A facsimile may be found in Meyer-O'Meara, p. 176.

13 This is another version of Theoricum opus armonice discipline.

14 A facsimile of this work and a translation into German was done by Johannes Wolf in 1922. See 8.

15 Kinkeldey, op. cit., p. 97. This is the earliest dictionary of musical terms. It was written in Latin and defined about 288 different musical terms.

16 Subsequent editions of this book were published in 1497, 1502 and 1512. A facsimile of the 1497 edition with notes and staves printed from a woodblock may be found in Meyer-O'Meara, p. 175.

17 This is an exposition of Gafurius' theories in the Italian vernacular. His other works were written in Latin.

18 Other editions of this book were printed by Joh. Schäffer, in Basle, 1497, and Joh. Froschauer in Augsburg, 1498 and 1500. A facsimile of woodblock music from a Keinspeck Lilium printed by Schäffer may be found in Molitor, p. 7.

19 Subsequent editions of this work were published in 1501, 1504 and 1507.

20 Kinkeldey, op. cit., p. 98. "Copies of some of these books exist in which the blank spaces were never filled in."

21 Ibid., p. 99, citing Josef Mantuani, Ueber den Beginn des Notendruckes (Wien, 1901). "Mantuani's accurate measurements prove beyond doubt that the black squares were printed with type together with the letter text, and that the squares were probably produced by reversing the type of some capital letter." A facsimile and translation by G. F. Barwick of the passage of Gerson's text may be found in Littleton, pp. 5-6; in Meyer-O'Meara, p. 173; Riemann, Tafel I; Steele, fig. 1.

22 Ibid., p. 117. "A copy of the original in the Library of Congress has no lines."

23 Berry and Poole, op. cit., p. 49. "There is little doubt but that the music was printed from type: though some authorities maintain that it was printed from metal blocks. No staves were printed. In the second edition of the same work printed in Basle about 1485 the same notes are printed from a woodblock." Kathi Meyer maintains that the printing was done from metal blocks.

24
A facsimile may be found in Meyer and O'Meara, p. 174; in Littleton, p. 15. According to Littleton, a Basle, 1500, edition of this work has a printed staff.

25
A facsimile may be found in Steele, fig. 1; in Littleton, p. 26.

26
Meyer and O'Meara, op. cit., p. 173. "The system of lines seems to me to have been made with woodcuts, to judge by the irregularity of thickness." The more commonly held opinion is that the lines of the staff were made with type rules since the pieces forming the lines are not joined perfectly.

27
Kathi Meyer, "Michel de Toulouze," The Music Review Vol. 7 (1946), 178-182.

28
Kinkeldey, op. cit., pp. 100-101.

29
Meyer and O'Meara, op. cit., p. 176. Meyer cites the Legend of Saint Ursula as one of the few secular songs that had the melody printed. The melodies were not added in most of the songbooks of the fifteenth century. A facsimile may be found in this source, p. 178, fig. 6.

30
Kinkeldey, op. cit., pp. 101-102.

31
Meyer and O'Meara, op. cit., p. 176.

32
Meyer-Baer, op. cit., p. xxxviii.

33
Ibid., p. xxxiii. Meyer-Baer's research brought to light the French contribution to music printing. Previously no printed music incunabula were known to exist from this country.

34
W. H. J. Weale, Bibliographia liturgica. Catalogus Missalium, ed. Hanns Bohatta (London: Apud Bernardum Quaritch, 1928).

35 Meyer-Baer, op. cit., p. x.

36 Hanns Bohatta, Liturgische Bibliographie des XV. Jahrhunderts (Wien, 1911). Meyer-Baer's addition to the list is the Graduale Moguntinum printed in 1500 by Drach in Speyer.

37 Meyer-Baer, op. cit., p. xiv. Books for special services come under such titles as Agenda, Baptesimale, Benedictionale, Ceremoniale, Exequiale, Liber Catechumeni, Litaniae, Manuale, Obsequiale, Pontificale, Processionarium, Regulae and Vigiliae.

38 Kinkeldey, op. cit., p. 103. Kinkeldey says that not until the 1490 printing of the Mainz Psalter did type-printed music appear in the book. The 1490 edition was printed by Peter Schoeffer.

39 Meyer-Baer, op. cit., p. xxv.

40 Ibid., p. xxvi.

41 Ibid., p. xvii. Meyer-Baer provides examples of both Roman and Gothic notes.

42 Ibid., citing R. Molitor, op. cit., and Johannes Wolf, Handbuch der Notationskunde (Leipzig, 1913-1919).

CHAPTER III

POLITICAL, SOCIAL AND ECONOMIC CONDITIONS IN GERMANY FROM 1450-1500

Letterpress and music printers in Germany during the second half of the fifteenth century faced unfavorable political, social and economic conditions. The Renaissance was already beginning in Italy, but it was to be several years before the Renaissance spread north into Germany and the Holy Roman Empire. The political and social conditions faced by printers in Germany were beginning to improve at the turn of the sixteenth century, but the improvements came too late. Many of the German printers had already gone to Italy and other parts of Europe to establish their presses.

During the second half of the fifteenth century Germany was not yet a unified nation. Instead, she was a country divided into independent sections ruled by territorial lords and the territories were part of the Holy Roman Empire. At the end of the fifteenth century, Germany consisted of more than three hundred nearly-independent states. The main states were: Austria, ruled by the Habsburgs; Saxony; Palatinate; Bavaria; Brandenburg; and Würtemberg. The chief legislative body was the Electors. This group was made up of seven princes, three spiritual and four temporal, and had the power to

choose the Emperor. These Electors were the Archbishops of Mayence (Mainz), Treves and Cologne, the Elector Palatine of the Rhine, the King of Bohemia, the Elector of Saxony, and the Margrave of Brandenburg. The legislative assembly of the Empire was the Diet which consisted of the tenants-in-chief of the Emperor. The Diet met in three colleges, the Electors, the princes, and the Imperial cities, but there was little enforcement of the decrees of this group.

Two Holy Roman Emperors were in power during the incunabula period of music printing. Frederick III was crowned Emperor in 1452 at Rome, the last emperor to be crowned there. Frederick was of the House of Habsburg which ruled Austria. Frederick has been attacked by historians for "his indolence, his inertia, his inactivity, his 'neglect of the interests of the Empire,' his apparent reluctance to stand and fight his enemies, his acceptance of defeat upon defeat."[1] It has been said that the Empire under Frederick was "ruled by an emperor without interest in its affairs."[2] The Emperor showed little concern over the constant civil wars being fought among the princes, nor did he make any attempt to prevent the territorial lords from infringing on the independence of the free cities. But Frederick did believe in the future great-

ness of his dynasty and was especially careful to safeguard the Papal support of the Habsburgs. This support was necessary for the Habsburgs to retain control of the Empire. The Empire suffered terrible land losses under Frederick: Schleswig-Holstein went to Denmark; the Teutonic Order in Prussia went to the King of Poland; in 1460 the Empire lost the cantons in Switzerland; Poland and Hungary both seceded.[3]

The other political figure in this time period was Maximilian I, son of Frederick III. On February 16, 1468, the six electors chose the Archduke Maximilian of Austria-Burgundy as King of the Romans.[4] He was twenty-six years old at the time. The father and son ruled jointly from that time until Frederick's death in 1493. In 1493 Maximilian became Holy Roman Emperor and reigned until 1519. Maximilian seemed to be everything his father was not, and his reign has been described as "flamboyant and turbulant."[5] The young man was intelligent and well-educated. He "patronized art, encouraged scientific investigation and aspired to be a writer."[6] At the age of 18 he had succeeded in bringing Burgundy into the Empire by his marriage to Mary of Burgundy, daughter of Charles the Bold. Burgundy at that time was a rich area, and the courts were remarkable for their cultivation of the arts.

In addition, Maximilian

> attempted to remedy the clumsy and inefficient administrative and political organization of the Empire by decreeing several constitutional reforms at the Diet of Worms (1495), including the establishment of a standing national court of justice and the promulgation of a perpetual Land Peace.[7]

Because of Maximilian's patronage of the arts and his interest in improving the political conditions of the Empire, social and economic conditions in the Empire began to improve during his reign.

But during the major portion of the second half of the fifteenth century, social and economic conditions in Germany were poor. The territories of the Empire were assuming complete sovereignty, and the power of the Emperor was declining. The power was coming into the hands of the territorial lords who enforced their wishes with the threat of their trained soldiers. The cities were in the process of losing their political independence, but at the same time the residents of the cities were becoming wealthier and more influential in the cultural, economic and political life of the cities. But while the merchant class in the cities was rising, the lower nobility, the knights, was in a state of decline. These petty nobles

were caught up in the economic struggle between the powerful territorial rulers and the bourgeois. The political unrest in the cities contributed to the spread of printing and music printing in Europe.

> On 27 October, 1462, the sack of the city of Mainz by contending and rival Archbishops, Adolph von Nassau and Diether von Isenburg, halted printing there for the next couple of years, and contributed to the spread of printing.[8]

The quarrel of these two Archbishops wiped out commerce and the lack of money forced printers to leave and set up their presses elsewhere. Social unrest prevailed especially among the peasantry. Some of the peasants found improved economic conditions by finding employment in the cities. But the peasant who did not migrate to the cities continued to live under the manorial system that had prevailed in Germany since the Middle Ages. Because of this system, the peasants were in revolt and many uprisings took place in the second half of the fifteenth century. These peasant uprisings were especially prevalent in southwest Germany.

The export trade of Germany showed growth during this period. The growth was due to the discovery of copper and silver and to the manufacture of cloth and iron products. Some families in southern Germany were gaining

in financial power and were competing with the famous banking families in Italy. Despite Germany's close contact with Italy, Germany and most of the rest of Europe were slow in following the new ideas of Renaissance Italy. But humanistic scholarship eventually came to Germany and was given much impetus by Gutenberg's invention of printing with type. Many new universities were established during this time and at the end of the century there were sixteen universities in existence. The humanism in Germany gave rise to a great interest in religion and nationalism. Those who were most nationalistic were the first to attack the Roman Church for her foreign intervention in Germany and this movement caused the Reformation to come to Germany.

In contrast to the political and social confusion in Germany, Italy flourished economically with its independent city-states. These cities had broken away from the control of the Emperor and secured political liberty. For a time the cities existed independently, but soon grouped together and became separate states. The five leading states at this time were Milan, Venice, Florence, the Papal States and Naples. In addition to Italy's political liberty, the country offered the German printers a wealthy nobility. These noble families supported the arts and its printing artisans.

NOTES TO CHAPTER III

[1] Friedrich Heer, *The Holy Roman Empire* (London: Weidenfeld & Nicolson, 1968), p. 123.

[2] John E. Rodes, *Germany, A History* (New York: Holt, Rinehart and Winston, 1964), p. 91.

[3] Andre Maurois, *An Illustrated History of Germany* trans. Stephen Hardman (New York: The Viking Press, 1966), p. 98.

[4] Heer, *op. cit.*, p. 126.

[5] Rodes, *op. cit.*, p. 95.

[6] *Ibid.*

[7] Kurt F. Reinhardt, *Germany 2000 Years* (Milwaukee: Bruce Publishing Co., 1950), p. 167.

[8] Colin Clair, *A Chronology of Printing* (New York: Frederick A. Praeger, Publishers, 1969), p. 11.

CHAPTER IV

GERMAN MUSIC PRINTERS IN VENICE AND ROME

Letterpress printing and music printing in the fifteenth century showed growth and development particularly in Italy. Yet, Italy has no claim to the invention of the art of printing text or music from movable type; the art had already matured when German printers brought their craft south of the Alps into Italy. Italy was the ideal place for these German printers to migrate because of the Renaissance and because of Italy's geographic position. The city of Venice was situated near the Brenner pass which led into Germany and a large group of German merchants made use of the route to trade in Venice and in other parts of Italy. The nationality of early Italian printers was divided between Germans and Italians, but it was the Germans who practiced initially; Italian printers learned from their German counterparts. By 1500, 73 Italian towns had printers and 1,680 type fonts were in existence.[1] The year 1465 is assigned as the date of the first book issued from an Italian press. The book was the Lactantius printed at the Monastery of St. Scholastica in Subiaco by Conrad Sweynheym and Arnold Pannartz.[2] The latter had emigrated to Italy from Mainz, Germany.

Venice, the leading center of Italian printing, ranked

highest in elegance of its printed material. It has been estimated that more than 268 printers were at work in that city prior to the turn of the century.[3] This large number of printers far exceeds the four Italian cities ranked next in order: Milan, 63; Rome, 41; Florence, 37; and Naples, 27. Approximately 100 new printing offices were established in Venice between 1481 and 1500 and it has been estimated that Venice alone produced nearly two million books before 1500.[4]

I. VENICE

Social and economic factors contributed to making Venice the leading Italian printing center. The efficient naval force of this seaport-city kept all enemies at bay and yet gave access to sailing vessels which traded in all parts of the known world. The Venetian Senate had already passed legislation forbidding the exportation of rags from the dominions of the Republic.[5] By so doing the Senate guaranteed the production of paper essential for printing. It was natural that the printers chose Italy and especially Venice as their artisan residence because the wealthy nobles were able to patronize the craft of printing. Learning had its home in Italy and manuscripts existed in abundance. The printers developed their art by reproducing many of these manuscripts.

John of Speyer was the first to print in Venice. Little is known of his life beyond the fact that he migrated to Venice from Speyer, a city on the Rhine between Mainz and Strasbourg. The Collegio of Venice granted John of Speyer a printing monopoly for the city for five years. John's monopoly began September 18, 1469, but the printer died the following year. Associated with John in the printing business was his brother, Wendelin. The latter printed in Venice until 1478 in partnership with two other Germans, John of Cologne and John Manthen.[6] No examples of music printing from these early printers exist.

Another printer who came to Venice from Speyer was Emerich von Spira (also Ioannes Emericus de Spira). Spira printed 14 Missals prior to 1501;[7] at least eight of these contain printed music. In addition to these Missals, he is credited with four other liturgical printings which contain music, and three Psalters, none of which contains music.[8] All of Emerich's music printing was accomplished in Venice. A list of the above-mentioned music printing includes:

1487. Missale Parisiense. (No. 700) Printed in conjunction with Hamman. Staves are printed, notes in manuscript.

1493. Missale Romanum. (No. 924) Both staves and notes printed.

1493. Processionarium Ord. Praedicatorum. (Not numbered) Both staves and notes printed.

1494. Missale Romanum. (No. 1494) Both staves and notes printed.

1494. Processionarium Ord. Praedicatorum. (Boh. 782) Both staves and notes printed.[9]

1497. Missale Romanum. (No. 941) Both staves and notes printed.

1498 (July 4?). Missale Romanum. (No. 945) Both staves and notes printed.

1498 (October 15). Missale Romanum. (No. 946) Both staves and notes printed.

1498 (February 26). Missale Strigonense (Gran). (No. 1498) Staves printed, notes in manuscript.

1499-1500. Graduale Romanum. (Boh. 704) Edited by Franciscus de Brugis. Both staves and notes printed.

1500 (March 6). Missale Ord. Praedicatorum. (No. 1825) Both staves and notes printed.

1500. Liber Catechumeni. (Boh. 726) Both staves and notes printed.

Spira's eight Missals all contain printed staves and notes with the exception of two, the Missale Parisiense, 1487, printed with Hamman, and the Missale Strigonense (Gran), 1498, both of which contain printed staves and notes written in manuscript. In the majority of the Missals, music was printed before and in the Canon, the common practice of liturgical printing in this time. Spira's two Missals printed in 1498 and 1500 were exceptions: the Missale Romanum (No. 946) has music only before the Canon; the Missale Ord. Praedicatorum (No. 1825) contains music before and after the Canon.

Spira used only Roman note forms in his music printing. Numerous ligatures were used in the music of the Missals; only

the Missale Romanum (No. 941) contains very few ligatures. His single notes were sometimes curved, sometimes straight, but all the single notes were printed with stems.

The staves in all of Spira's Missals were arranged in two columns on the page, with from six to ten staves to a single page. All of the staves were printed in red ink with four lines except those found in the Missale Romanum of 1493 (No. 924) where the staves were printed in black ink. Spira's method of printing the staves was varied: he printed them from a single piece the width of the column; from several pieces across the width of the column; or from single or double metal rules. The latter process was used for his earliest music printing. Spira used both C and F clefs in his music printing. He printed bars to separate words or sentences in the text.

Spira's Missale Romanum of 1493 (No. 924) is said to have been printed from a woodblock rather than type.[10] Although this was Spira's first liturgical printing on his own, he had printed the Missale Parisiense with type in partnership with Hamman and apparently understood the procedure of printing with type. The Missale Romanum shows irregularities in the lines of the staves and in the clefs; these irregularities do not occur with type printing. Printing from a woodblock would also account for the staff

lines being printed in black rather than red. Perhaps Spira made the woodblock himself, for the form of the notes is very similar to the forms used in his type printing. In this woodblock printing, music occurs on 46 pages, and most of these have printed music on the full page.

Spira printed the two Processionaria books in 1493 and 1494; the dates coincide with the years of two of his earliest Missals. Printed staves and notes occur in both and music is found throughout the two books. Spira used Roman note forms and these single notes show a straight outline with stems on each note. The staves were printed in a single column with five staves to a page. The staves contained four lines and were printed with red ink. In the earliest Processionarium the staves were printed with metal rules, but in the second the staves were printed from a single piece the width of the column. The Processionarium of 1494 has a frontispiece printed from a woodcut depicting a procession. Several smaller woodcuts representative of the sacramental services are also found in this edition.[11]

Spira printed a Graduale Romanum and a Liber Catechumeni both of which contain printed staves and notes. Music occurs throughout these liturgical books. Again Spira uses Roman note forms, ligatures and single notes with stems. The staves were set in a single column, with six or seven to

to a page. In the Graduale the staves were printed from a single piece, but in the Liber the staves were printed from several pieces. Both C and F clefs were used. In the Graduale, single and double bars separate words; in the Liber bars were printed at the ends of sentences. The Liber contains ornamented initials and the frontispiece is a woodcut printing showing baptismal scenes.[12]

Another Venetian music printer in the incunabula period was Johann Hamman (also J. Herzog aus Landau). Hamman migrated to Venice from Landau in Germany. Before the turn of the century, Hamman printed 12 Missals; two more were printed in the first decade of the sixteenth century.[13] Of the 12 Hamman Missals, at least seven contain music. A printed Agenda also contains music.[14] A chronological listing of Hamman's music printing mentioned above includes:

1487 (November 10). Missale Parisiense. (No. 700) Printed in conjunction with Spira. Staves are printed, notes in manuscript.

1488 (October 15). Missale Romanum. (No. 904) Both staves and notes printed.

1493 (July 1). Missale Romanum. (No. 925) Both staves and notes printed.

1493 (December 1). Missale Romanum. (No. 926) Both staves and notes printed.

1494 (February 1). Missale Ord. Praedicatorum. (No. 1822) Both staves and notes printed.

1494 (September 1). Missale Sarum. (No. 1390) Both staves and notes printed.

1494 (December 1). Missale Sarum. (No. 1391) Both staves and notes printed.

1497 (June 5). Missale Romanum. (No. 938) Both staves and notes printed.

1498. Agenda, Seu Benedictionale Pataviensis. (Boh. 18) Printed for Petri. Both staves and notes printed.

Hamman's nine liturgical printings all contain printed staves and notes with the exception of the Missale Parisiense which he printed with Spira. As was mentioned previously, this Missal contained only the printed staff lines. Hamman's music printing was done between 1487 and 1498. In the Missals, the printed music always occurs before and in the Canon. The exception to this was the Missale Sarum of 1494 (No. 1390) in which music also was printed after the Canon. The Agenda has music throughout.

The note forms in each of Hamman's Missals is Roman; only in the Agenda did he resort to the use of Gothic type. The printer made use of numerous ligatures, but only in the Missale Romanum of 1493 (No. 938) were the ligatures broken into single notes. The design of the single note varies, sometimes the outline is straight, sometimes curved.

Hamman preferred to print his staves in two columns on the page. Only in the Canon of the Missale Sarum (No. 1491) was the music printed in a single column. This single column

printing of music in the Canon emphasized the importance of that portion of the Mass and was not an uncommon practice.[15] The staves in every Missal were made up of four red lines. The number of staves per page varied from six to nine. The staves of four of the Missals appear to have been printed from single or double metal rules. Two Missals contain staves printed from a single piece the width of the column, and two more contain staves printed from several pieces assembled to fill the width of the column.

In the Agenda, Hamman's music printing contains ligatures that were sometimes broken up into single notes. The outline of the single note was straight and had no stem. Staves were set in a single column with six staves to a page. The staves were red, of four lines and printed from several pieces.

Hamman used both the C and F clefs in his music printing. With the exception of the Agenda, Hamman inserted bars into the music to separate either sentences or words.

Nicolaus de Franckfordia was another German music printer active in Venice. He printed seven Missals during the incunabula period.[16] Two of Franckfordia's Missals were concerned with music printing. The two are:

1484. Missale Ord. Praedicatorum. (No. 1817) Only the staves printed.

1487. Missale Romanum. (No. 900) Only the staves printed.

In Franckfordia's Missals the music staves were printed before and in the Canon. Both printings show staves set in two columns with eight staves to a page. The four-line, red staves were printed from single or double metal rules in both Missals.

Erhard Ratdolt arrived in Venice from Augsburg in 1476. Ratdolt ranks next to such famous Venetian printers as Nicolaus Jenson and Aldus Manutius in the quality of his craftsmanship. Ratdolt printed for ten years in Venice and during that time he published 67 books. In 1486, Ratdolt returned to Augsburg. Ratdolt was associated with the printers Bernard Pictor and Peter Loslein of Langenzenn and the three printed in company from 1476 to 1478. According to Brown,

> the adoption of floriated and foliated borders and initials, in the place of the illuminated or rubricated initials produced by hand in the case of the earliest Venetian printers, is one of the most important advances achieved by subsequent printers.[18]

Although Han had used this process as early as 1467, it did not become common in Venice until the time of Ratdolt, Pictor and Loslein. After the partnership was dissolved, Ratdolt continued to print on

his own, but from this time on he used Gothic type rather than Roman.[19] Ratdolt printed 18 Missals prior to 1500, and from 1502 to 1510 he printed ten more.[20] At least nine of Ratdolt's Missals contain printed music; four other liturgical books by this printer also contain music. Although Ratdolt produced a large amount of printed music, all of these items in which music occurs were printed after Ratdolt returned to Augsburg.

Petrus de Hagembach printed three Missals.[21] Only one contained printed music, but it was printed after Hagembach left Venice for Toledo.[22] Franz Renner printed in Venice from 1471 to 1483. His only Missal contains no printed music. Christopher Valdarfer was a German printer from Regensburg who set up his press in Venice in 1470. By 1473 Valdarfer was printing in Milan. No music has been found from his Venetian press. Another German printer in Venice was Theodorus Francus (Theodor von Würzburg). His contribution to music printing was mentioned in Chapter Two.

II. ROME

Rome could not compete with Venice in quantity nor in quality of printing, but the city held an important place in the development of letterpress and music printing in Italy. It was near Rome that the first printing took place in Italy. The first issue from a printing press in Rome was 1465, while the first Venetian printing did not occur until 1469.[23]

Rome was also the setting for the first music printing in Italy.

To Rome belongs the honor of being the first to produce a type-printed book containing printed musical examples. This was the Missale Romanum printed with a "double-impression" process by Ulrich Han in 1476.[24] Han was one of the first German-speaking printers to bring the new art of printing into Italy and his contribution to music printing cannot be underestimated.

Han was born in Ingolstadt, but it was in Vienna that he claimed his right to citizenship. According to Bohatta, some controversy exists about the place where Han learned the art of printing.[25] He suggests that Han had been apprenticed in Bamberg, but A. Schmitt said that Han had been apprenticed in Mainz in 1456.[26] Han is mentioned as the first Vienna book printer.[27] The following story concerning Han is recounted in Bohatta's article.[28] Han's appearance in Vienna came during the time when an argument existed between Herzog Albrecht VI and Emperor Frederick IV. Han had brought with him to Vienna accurate sketches for construction of his printing press and he had the press constructed in a former goldsmith workshop. Shortly thereafter, a series of political errors on Han's part forced him to flee the city. Han's first printing consisted of a placard

advertising himself as a book printer. This project brought about a commission from the university. Han's printing activity was soon opposed by the writers' guild. Han also received admonishments from the Vienna councilmen. The latter allowed Han to continue printing but cautioned him not to offend privileged groups. During this time a man by the name of Holzer was named in Vienna to represent the Crown Prince Albrecht; the latter opposed Emperor Frederick, the rightful Emperor. A man named Adam Bauenfeind wrote a satirical poem against Albrecht and brought the poem to Han to be printed and posted on all churches in the city. Han gladly printed the poem, hoping to win acclaim for his printing. This poem was posted August 20, 1462. But Han had underestimated public opinion concerning the political climate. The population of Vienna burned the house of Bauenfeind, and then destroyed the press and types of Han. The printer probably would have been killed had not the city soldiers intervened and saved him. The councilmen of Vienna then decreed that Han must leave the city. The printer left Vienna and outside the city he encountered the troops of the Emperor. Emperor Frederick was shown Han's printed poster. The Emperor then entered the city August 22. Frederick soon was arrested and fighting broke out among the people. In order to avoid a second disaster, Han fled with his newly-constructed type

to Korneuburg and from there to Wiener Neustadt where he was introduced to Torquemada. The latter invited him to Rome and Han set out for Italy in 1465.[29]

Han produced two Roman Missals. The first Missale Romanum (No. 853) was printed April 21, 1475; the second (No. 855) was completed October 12, 1476. In the first Roman Missal blank spaces were left for the music to be filled in by hand. In the second, however, music appeared before and in the Canon. The five-line staves were printed in red, while the notes were printed in black. The music itself was printed in square, Roman notation. The C-clef was the only clef used by Han. His clef shows development from what was once the ligature for an ascending interval.[30] He did not make use of many ligatures. Most of his printed notes were single notes in the form of the virga, with a stem on the right side. The staves were printed in two columns, with ten staves to a page. The staff lines were printed from a single piece the width of the column. The initials and capitals of the Missal were added by hand and were painted in colors of red, blue and yellow.

Han printed approximately 80 works before his death in 1478, but the Missale Romanum of 1476 was the only book containing printed music. In the colophons of his printed books, Han used the Latin form of his name, Gallus (a cock).

Han conceived a pun on the meaning of the word with the allusion to the legendary geese who saved Rome by their cackling and telling their descendants that

> the time of vengeance had now arrived, as a Gallus had come to Rome who would make them superfluous by printing in a single day as much as could be written with any goose quill in the course of a year.[31]

Another of Han's contributions to printing was his ability as a type-designer. Han cast seven different fonts; the earliest were Roman characters, but later he used a form of Gothic type.

Han's successor in Rome was another German-speaking printer, Stephan Planck. Planck printed five Roman Missals,[32] two of which contain music. He also printed two Pontificales with printed music. Planck printed approximately 300 editions during his 21 years of printing activity in Rome. A list of his music printing mentioned above includes:

1485. Pontificale. (Boh. 777) Both staves and notes printed.

1488 (December 22). Missale Romanum. (No. 905) Both staves and notes printed.

1496 (October 31). Missale Romanum. (No. 934) Both staves and notes printed.

1497. Pontificale. (Boh. 778) Both staves and notes printed.

Planck's liturgical music printing was similar to his predecessor Han's printing. Planck printed both staves and notes. Music occurs before and in the Canons of the two Missals, and throughout the Pontificales. Planck used Roman note forms, ligatures, and straight single notes with stems. His staves were set in two columns; they were printed in red and have five lines like Han's. His staves were either printed from a single piece or from single or double metal rules. Bars separate words or sentences.

Yet another German, Eucharius Silber, printed in Rome from 1480 to 1509. His printing numbers over 200 editions. Apparently Silber did not print any liturgical music like Han and Planck, but he made one contribution to music printing. This contribution was the woodblock printing in 1493 of the Historia Baetica of Carolus Verardus, containing a musical composition for four voices. The notes in this music printing occur in mensural values on a five-line staff. This printing was discussed previously in Chapter Two.

III. ITALIAN PRINTERS

Italian printers active in Venice during this incunabula period of music printing were: Arrivabene; Baptista de Tortis, 1480-1500; Bernardus de Benaliis; Bevilaqua; Girardengus; Novimagio; Andreas Torresanus, of Asola, Lombardy; and Sessa. Each of these Italian printers published several books containing printed music, but none equalled the accom-

plishments of the above-mentioned Germans.

The efforts of the incunabula music printers were admirable, but it remained for another Venetian printer, Ottaviano dei Petrucci to apply the music printing procedures used in liturgical books to the printing of secular mensural music. Petrucci was born in 1466 at Fossombrone. On May 25, 1498 he was granted the privilege for the printing of mensural music with movable type by the Signory of Venice. The patent was to have lasted for twenty years. Three years elapsed between the time when Petrucci was granted the patent and the time when the first music printing appeared from his press. The earliest volume was the Harmonice Musices Odhecaton A, printed at Venice in 1501. This book contained ninety-six secular music compositions, the majority of which were French chansons for three and four voices. Famous composers of that time period, Okeghem, Obrecht, Compere, Tinctoris, Isaac, de la Rue, Josquin, Busnois and others were represented in this volume. Petrucci's next music publications were: Canti B in 1502 and Canti C in 1503.

Petrucci's printing from movable type was accomplished by a twofold or threefold process like the one used by the liturgical music printers. Separate impressions were needed for the notes, the staff lines and the text. The perfection of Petrucci's type, and the coordination of staff, music and text left little to be desired. Later Petrucci returned to

Fossombrone, and here he obtained a similar printing privilege from the Pope. This patent allowed him also to print tablatures for instrumental compositions. Petrucci died in 1539.

NOTES TO CHAPTER IV

1 John Clyde Oswald, A History of Printing (New York: D. Appleton and Company, 1928), p. 81.

2 Horatio F. Brown, The Venetian Printing Press 1469-1800 (Amsterdam: Gerard Th. van Heusden, 1969), pp. 1-2. Brown mentions another book in existence, the Decor Puellarum, a book of instruction for young girls. The colophon states that the book was printed by Nicholas Jenson in 1461, but some controversy exists over the date of this book.

3 Oswald, op. cit., p. 100.

4 Ibid.

5 Ibid.

6 Ibid.

7 W. H. J. Weale, Bibliographia Liturgica. Catalogus Missalium ed. Hanns Bohatta (London: Apud Bernardum Quaritch, 1928). Weale numbers are used unless specified as Bohatta.

8 Kathi Meyer-Baer, Liturgical Music Incunabula (London: Bibliographical Society, 1962).

9 Otto Kinkeldey, "Music and Music Printing in Incunabula," Papers of the American Bibliographical Society, 1932, p. 112. Kinkeldey cites this work as having been printed by Spira for Lucantonio Giunta.

10 Meyer-Baer, op. cit., p. 24.

11 Ibid., p. 39.

12 Ibid., p. 7.

13 Weale, op. cit.

14 Meyer-Baer, op. cit., p. 2.

15 Ibid., p. x.

16 Weale, op. cit.

17 A copy of this Missal may be found in the British Museum.

18 Brown, op. cit., p. 29.

19 Ibid., p. 32. Peter Loslein continued to print on his own after 1478. "It is usually taken for granted that Pictor describes Bernard's profession, and that this epithet designates him the draughtsman employed to ornament the books which Loslein edited and Ratdolt printed.

20 Weale, op. cit.

21 Ibid.

22 In 1499, Petrus de Hagembach printed a Missale Mixtum at Toledo. The same Missal had been printed first at Venice in 1488, but errors were so numerous that it never received Papal approval and consequently was destroyed.

23 Brown, op. cit., p. 9.

24 Meyer-Baer, op. cit., p. xxxv.

25 Hanns Bohatta, "Ulrich Han, Der Erste Wiener Buchdrucker," Gutenberg Journal, 1933, p. 31.

26 Ibid., citing A. Schmitt, "Gutenberg," Vienna, 1855, p. 117.

27 Ibid., citing A. Mayer, Biophischs Lexikon des Kaisertums Oesterreich (Wien, 1857-1892), p. 100.

28 Ibid., p. 33. "No one quite knows the source of Schmitt's tales and allusions because at the time the essay was labeled as fantastic and impossible." The most obvious discrepency is that Emperor Frederick III, not Frederick IV, was in power at this time.

29 This story of Han is probably untrue. No sources are known to support the tale.

30 Meyer-Baer, op. cit., p. xxxv.

31 Oswald, op. cit., p. 81.

32 Weale, op. cit.

CHAPTER V

SUMMARY AND CONCLUSIONS

German-speaking printers influenced their Italian counterparts both directly and indirectly. Mainz was the earliest center of letterpress printing; Fust and Schoeffer had taken over their printing shop from Gutenberg. In Mainz the concern for reproducing music in liturgical books came with the first editions of the Mäinz Psalter in 1457 and 1459. The printers left blank spaces for the music to be filled in by hand; they probably lacked the knowledge of how to reproduce music from type. When apprentices from the rest of Germany and all over Europe came to Mainz to learn the new art of printing, they probably would have been made aware of the need for reproducing and printing music notation.

The first printers in Rome were of German origin; these early printers included Sweynhym and Pannartz, Sixtus Reissinger, George Lauer and Ulrich Han. These printers had been apprenticed in the first printing shops in Germany. Han's printing of both staves and notes with type in the Missale Romanum of 1476 was the first step in reproducing music from movable type. It is not known whether Han knew of the "double-impression" technique before he came to Rome,

or whether he developed it on his own. He was probably aware of the problem before he came to Rome, but since he printed no music in Vienna, it can be assumed that he developed the technique himself after his arrival in Italy. Nevertheless, it is certain that Han was in contact with other printers in Rome and may have been influenced by them. Though Rome was the seat of the Catholic Church, very little music printing was done there during the incunabula period. Perhaps this lack of printed music was due to the abundance of copyists who worked under Papal support in Rome.

Han died in 1478 and his printing successor was Planck, who printed in Rome from 1485 to 1497. Planck's first liturgical printing came in 1485, seven years after Han's death. It is not known how long Planck was in Rome before he began to print music. Since Planck arrived from Germany several years later, perhaps he brought his music printing knowledge with him, or he may have been influenced by the German printers already at work in Rome. The latter certainly knew Han's technique. The influence of Han on Planck's work can be seen in the latter's use of the five-line staff. With the exception of Han and Planck, liturgical printers in the fifteenth century printed music on a four-line staff. No music printing seems to exist for the years between 1476 and 1485 in Rome, but perhaps further invest-

igation would provide specimens from this time period.

During the nine-year time lag without music printing in Rome, printers in Germany continued the development of the art. As was mentioned previously, ten liturgical books with printed music appeared from about 1476 to 1488 in the Constance-Basle-Strasbourg area. This would indicate that printers who came a few years later into Italy had probably apprenticed in shops which printed music, had heard of the "double-impression" technique, or perhaps had seen an edition with printed music.

The time lag in the development of music printing in Venice was not as great as that in Rome. This may have been due to the fact that the large number of German printers in Venice arrived a few years later from Germany. Again, in Venice the earliest printers were from Germany, John of Speyer and his brother, Wendelin. Another early printer of even greater significance was Nicolas Jenson. Jenson was not a German. He was master of the mint at Tours in France and was sent to Mainz in 1458 by Charles VII to learn the secrets of the new art of printing. Jenson complied with Charles' wishes and surely while he was in Mainz he had learned something of music printing also. Soon after he returned to France, Jenson left for Venice, set up his press and began publication.

Despite the fact that the Germans brought printing to Venice, it was an Italian who printed the first music notation. O. Scotus published his Missale Ord. Praedicatorum (No. 1815) and his Missale Romanum (No. 877) in 1482. These are the first examples of printing both staves and notes from type in Venice. Since Scotus was not apprenticed in Germany, it can be assumed that he must have learned the "double-impression" procedure in Venice from one of the German printers, or from a printer who had seen the procedure in operation at Rome. Scotus was helped by two famous printers, Johann Hamman, a German, and Bonetus Locatellus. In 1481 Scotus had published a Missale Romanum (No. 870), but only the staves were printed and the notes were filled in by hand.

The largest output of music printing in Venice came from two German-speaking printers, Emericus von Spira and Hamman. They had collaborated in 1487 with a Missal printing in which only the staves were printed. In 1493 Spira printed his next music publication, but he resorted to the use of a woodblock. Certainly he knew the procedure of type-printing since this was the method he and Hamman had used in 1487. Spira probably cut the woodblock in 1493 himself since the note forms resembled his type-printed note forms. Spira's method of printing staff lines apparently shows chronological development. When Spira printed with Hamman, the staves

were printed from metal rules. Spira retained this method for his next three liturgical printings. Only after 1494 does he use the two other methods of printing the lines. An Italian printer, Siliprandis had printed a Missale Romanum (No. 856) in 1477 at Venice, but spaces were left for both the staves and notes to be filled in by hand. Apparently the knowledge of music printing was not known in 1477, but became known sometime between 1477 and Scotus' printing in 1482.

The influence of German and Italian printers on one another can be seen in the symbols used in reproducing music; many printers made use of the same note forms and clef forms in their music printing. A table showing the printed shapes of single notes, double notes, ligatures, catchnotes and clefs used by incunabula printers may be found in Meyer-Baer's Liturgical Music Incunabula. From this table it can be seen that both German and Italian printers in Italy made use of the same basic outlines for music symbols. The chart also shows that some printers used a wide variety of symbols in different printings. A few showed more originality by developing music symbols particular to their own presses.

By 1501 Petrucci was able to print polyphonic, mensural music. The perfection and beauty of his work was

unequalled in Europe. But the influence of the liturgical printers on Petrucci's work cannot be overlooked. Petrucci was in Venice as early as 1498. By that time German and Italian music printers had already solved the problems of the "double-impression" process. Between 1498 and 1501 Petrucci probably often witnessed the printing of liturgical music and was familiar with the problems in coordinating staff, text and notes. It remained for Petrucci to apply the music printing procedures of German and Italian liturgical printers to the more complicated mensural music.

Many problems exist for those persons attempting to identify music printing from the incunabula period. In the liturgical books of this period, printed music usually occurs throughout the whole book or is found in a separate insertion. When the text of the music printing is identical to the type used in the rest of the book, it can be assumed that the music was printed in the same printing shop as the rest of the book. But sometimes it is possible to identify different styles of type in the music text and in the rest of the book; sometimes it is possible to identify different styles of printing music within different sections of the same book. Meyer-Baer suggests the possibility that special craftsmen may have been brought in when music was to be printed. In this instance, these craftsmen may have brought

their own music type and materials with them. Another possibility suggested by Meyer-Baer is that printing houses may have cooperated with one another in printing music. It is already known that individual music printers often assisted each other. Hamman's two editions of the Missale Romanum printed in 1493 are examples of this. One was printed for Scotus and the other for Franckfordia. One of the Missale Sarum which Hamman printed in 1494 was for Egmont. The full extent of the cooperation between printers and printing shops is not known. Another complication in identifying incunabulae stems from the problem of identifying the printers' types. Type fonts were often used as models from which other printers cut their own fonts; fonts were often sold or bequeathed to other printers. An example of the latter is the type font of Jenson which passed at his death to Peter Ugelheimer, a Venetian printer from Frankfurt. At the time of the latter's death, the same type font went to Torresano. Music printing type fonts were likewise sold and bequeathed to other printers.

Much research remains to be done in the area of music printing during the incunabula period; many problems exist for those attempting this research. The main problem is the lack of contemporary source material in the area of music printing. With the exception of several recent publications

on music printing, most source materials date from the early twentieth century and must be revised in the light of current discoverlies concerning printed music. The most recent publication known at this time is found in the Libri Novi de Musica catalogue of February, 1970, published by Bärenreiter-Antiquariat, Kassel-Wilhelmschöhe. It is Knud Jeppesen's La Frottola. Bermerkungen zur Bibliographie der ältesten weltlichen Notendrucke in Italien, 1968. Liturgical books are for the most part listed in general liturgical bibliographies, but these do not attempt to index those with printed music. The need for a bibliography such as this is great. Liturgical books containing printed music are scattered in libraries throughout the world. Each book would need to be examined in regard to music printing before being listed in such a bibliography. This would be a monumental task in itself. Another area in which scholarship research lies is in the categorization of music printing symbols. The table provided by Meyer-Baer is of help, but the organization of musical symbols under particular categories such as the outline of single notes, would provide more accurate information. In both liturgical and non-liturgical music printing, a need exists for the classification of printing techniques. Authorities often disagree as to the music printing method employed in printing a specific musical example.

Much research remains to be done on the relationship and influences of German on Italian printers. One complication in writing this paper came in the attempt to discover which of the printers were of German origin. After the printers migrated to Italy, they often assumed "Italianized" versions of their German names, making it difficult to distinguish between the German and Italian nationalities. An examination of activities between individual printers and printing shops would expose the influences and development of one music printer upon another.

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