

# **CHAMBER MUSIC ORIGINS**

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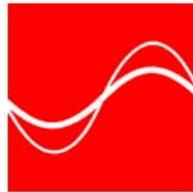
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A handwritten signature in black ink that reads "Neil Thompson Shade". The signature is written in a cursive, flowing style.

Neil Thompson Shade  
President and Principal Consultant

# Chamber Music Origins

**Neil Thompson Shade**

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Chamber music is a musical form written for a small group of instrumentalists, typically three to eight, with one performer playing a selected part that is presented in a small intimate setting without a conductor. While its origins as western art music reached its zenith in the early 1800s as music for the privileged, the musical form can be traced to ancient times enjoyed by all social strata. This presentation will review the developments of chamber music from earliest times to modern performance practices with an emphasis on selected compositions written for precedent performance spaces. Musical examples will be played and architectural and acoustic data on selected chamber music spaces will be presented.

## Introduction

Chamber music is a musical form written for a small group of instrumentalists, typically three to eight, with one performer playing a selected part that is presented in a small intimate setting without a conductor. While its origins as western art music reached its zenith in the early 1800s as music for the privileged, the musical form can be traced to ancient times enjoyed by all social strata. Intimate in nature and frequently played by amateur groups, chamber music is often described as “music amongst friends”. The philosopher Goethe likened the string quartet form to be “four rational people conversing”.

## Ancient Period – Before 500 A.D.

Music is an adjectival form of the word *Muse*, one of nine Greek sister goddesses presiding over the arts and sciences. In Greek mythology music was viewed as coming from divine origins; it had magical powers of healing and miracles. As an art form, music was actively performed in Greek life. It was part of religious ceremonies, drama performances, athletic contests, and was played in both public and private forums.

### Music Practices and Instruments

Two cults of music were dominant in Greek civilization: the cult of Apollo and the cult of Dionysus. Apollonian music was performed on the lyre, a 5 to 9 string instrument, and used to accompany epic poems and singing. Dionysian music was performed on the aulos, a double reed wind instrument with one or, more commonly, two pipes used to accompany the choruses in the great dramas.

The first examples of public concerts occurred in the 6<sup>th</sup> century B.C. with the lyre, kithara (larger brother to the lyre), and the aulos being used as soloist instruments. Contests between virtuoso players were known to occur, prompting Aristotle to comment that there was too much professional training in music education. Ultimately, around 325 B.C. an overall simplification of Greek music resulted.

Greek musical composition was at first unstructured. Between the 6<sup>th</sup> and 4<sup>th</sup> centuries B.C. musical theory became more complex, with theoreticians such as Pythagoras developing modes, the precursor to musical scales, concepts of harmony, and acoustic theory, specifically the formation of musical intervals based on frequency ratios of pitches. Despite what appears to be a formalized musical structure, performance practice encouraged free improvisation based on a very loose musical composition.

While much about Greek music was copied by the Romans, many concepts relating to music composition,

theory, and practice evolved as part of early Christian and Medieval music practice.



18<sup>th</sup> Century Painting Depicting a Greek Musician Playing a Lyre

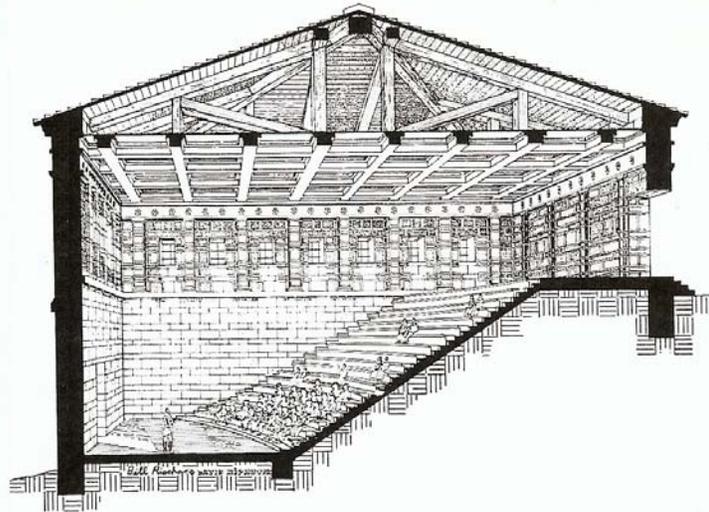


Figure 2. Vase Painting Showing a Greek Musician Playing an Aulos

### Performance Spaces

Music was performed in public spaces both outdoors and indoors. The Greeks utilized their bouleuteria, essentially roofed legislative buildings, as indoor performance spaces for drama and music. Several centuries later the Romans developed a much larger indoor theater form, the odium, based on the Greek bouleuteria, specifically for music performance. The bouleuteria form varied in size, but typically seated less than 1250

spectators. These column-free buildings relied on the first engineered roof trusses to span load bearing walls. The upper walls had openings for daylighting and ventilation, and in keeping with outdoor amphitheaters, the seating was highly raked, resulting in buildings with high ceilings. The bouleuterium at Termessus had dimensions of 72 ft square with an average ceiling height of 39 ft, seating capacity of 850, sightline distance of 33 ft, and estimated occupied mid-frequency reverberation time of 3.7 seconds.



**Greek Bouleuterium at Termessus, circa 100 B.C.**

## **Early Christian Period – 100 to 900**

The early Christian period in the first centuries A.D. rejected the idea of music as an art form or as a leisure pastime. Music performance at festivals, competitions, drama performances, or private functions all but disappeared in the first three centuries in part due to the Church's desire to rid converts of their pagan past.

### **Music Practices and Instruments**

Distrust for instrumental music was replaced by embracing singing as the acceptable form of musical expression. The only worthwhile music was one with words as this served to reaffirm the faithful. Early Christian worship and music were modeled on the Jewish synagogue tradition, specifically the practice of psalmody involving singing of verses by a leader and repeated by the congregation. Instruments were not allowed as part of worship as this was viewed as a pagan practice. Evidence does suggest that early versions of the pipe organ were used in later centuries to accompany singers. More elaborate singing traditions evolved as part of worship practice culminating in Gregorian chants starting in the 9<sup>th</sup> century.

Early church music was not written down, but passed on as an oral tradition. Gradually this was replaced around the 9<sup>th</sup> century with manuscripts utilizing shaped notes. Church modes were developed as a formalized musical concept, similar to the Greek modes, but with different sonority.

Little is known whether music, either instrumental or vocal, was performed for secular functions since there is no record of such practice.

### **Performance Spaces**

Worshiping was celebrated in early churches based on Greek and Roman designs with a succession of

architectural styles including Byzantine and Romanesque. Early churches were estimated to have reverberation times of 2 seconds due to their modest dimensions. With larger more elaborate buildings characteristic of later periods, reverberation times in excess of 8 seconds were common by the 11<sup>th</sup> century.

## Late Medieval Period – 900 to 1400

Late Medieval music is often viewed as strictly liturgical. However, secular music flourished during this period and is associated with minstrels and troubadours wandering from town to town playing music, enacting dramas, and providing entertainment with trained animals.

### Music Practices and Instruments

The minstrel tradition started in the 10<sup>th</sup> century by individuals considered societal outcasts. As such they were denied protection from the Church and lived a precarious life plying their trade primarily to village commoners. Being illiterate, minstrels did not compose music or write dramas. Their tradition was one of oral hand downs of pieces written by others. Gradually, by the 11<sup>th</sup> century the minstrels started guilds and training schools to promote their entertainment.

Troubadours were poet-composers primarily in France. Starting in the 13<sup>th</sup> century both provided entertainment primarily to the upper classes. Unlike the pauper minstrels, the troubadours wrote down their poems and melodies and there are at least 4000 poems and 1400 melodies in existence. A common musical genre was the pastourelle, a dramatic ballad, often of sensual and bawdy subject matter. Another form of music was the estampie, common in the 13<sup>th</sup> and 14<sup>th</sup> centuries, used for accompanying dance. Music was often written in  $\frac{3}{4}$  time with short phrases of three to five measures of easy melodic lines and complex rhythmic patterns often based on folk idioms.

Instrumental music was certainly performed prior to 13<sup>th</sup> century, as indicated in period artwork and poetic references, but which instruments were used is not known since music scores did not indicate instrumentation. Around the 13<sup>th</sup> century composers started indicating the instruments to be used for performance. Medieval performers used earlier Greco-Roman instruments such as the lyre but developed their own instruments which evolved into their modern equivalents. The lyre, used to accompany vocal music, evolved into the harp. The vielle was a five stringed bowed instrument which evolved into the viol and later the violin. The psaltery was a zither-like instrument in which the strings were struck and evolved into the clavichord. The lute came from Iberia via the Arab conquerors. The pipe organ evolved into the portative organ that was transported to performance spaces. Other common instruments included the flute, horn, bagpipe, and drums used for keeping time in dance pieces.



**A Modern Reproduction of the Vielle and Concave Bow**



**Medieval Musicians with Lute, Vielles, Flutes, Drums, Psaltery, and Harp**

In the late Medieval period larger instrumental ensembles appeared as was common practice for outdoor performances where instrument groups were noted as “haut” (high) and “bas” (low), referring not to pitch, but to loudness. Instruments were not grouped by common timbre, such as vielle, viol, lute, and psaltery, but by contrasting tonal color such as viol, lute, trumpet, and drum. This resulted in a tone quality that was bright, clear, and able to carry long distances.

### **Performance Spaces**

Secular music was performed in a variety of places including guildhalls, royal palaces, and outdoor fairs. Indoor acoustic conditions were likely quite reverberant due to the size and preponderance of masonry construction used during this period. Little else is known about secular music performance spaces in the Middle Ages.

## **Renaissance Period – 1400 to 1600**

The Renaissance era was characterized by a rebirth of human spirit and a revival of cultural standards particularly for secular art forms. It is thought that more music was composed during the Renaissance than all earlier periods combined. Musicians became a professional class, but were still dependent on patronage particularly for secular music.

### **Music Practices and Instruments**

Composers were less inclined to write liturgical pieces, and music was written to be aesthetically pleasing and serviceable for many social occasions, including dance. Texts became more intertwined with music and included a wider subject range than the earlier Medieval poems.

The rise of music printing enabled more scores to be created and distributed which is why musicologists know more about Renaissance music practices than earlier periods. One byproduct was the emergence of a new set of “how-to” publications on music instruction, widening music performance particularly by wealthy amateurs.

The period between 1450 and 1550 saw a dramatic rise in instrumental music performance throughout Europe and the development of nationalistic composition styles.

Music itself became more complex in form both harmonically and rhythmically. Music notation was more standardized, including added note values and accidentals, giving composers a richer palette for rhythm and pitch. The fixed modes were no longer in vogue and the interval of the third as a consonance was prominent in this era, in direct contrast to Medieval music. Syncopation and counterpoint began to be used as expressive techniques. Much instrumental music was transcribed vocal music and many published editions made no distinction between vocal or instrumental performance. Complex polyphonic music was often reduced to simplified forms and became the origin of the basso continuo of the Baroque period. The origin of chamber music ensembles as know today evolved from Renaissance times. Two ensembles, the sonata da camera (chamber sonata) and the sonata da chiesa (church sonata) utilized up to five musicians. This format evolved into the trio sonata of the Baroque period which used two treble instruments and one bass instrument playing figured bass with a keyboard providing chordal accompaniment.

Compositions became increasingly elaborate with highly independent voices often including improvisation by soloist performers. Published partbooks for each voice or instrument enabled performers to more closely play what composers intended. Performances by larger groups became frequent with four or more musical lines of similar sonority being a common musical form. All musical lines were viewed as equally important, but the ideal was a homogenous sound, so the consort – a complete set of instruments within a family – from bass to soprano evolved. The viol and recorder consorts were particularly popular.



**A Consort of Viols – The Smithsonian Chamber Players**

Keyboard instruments utilizing plucked or struck strings found wide acceptance in the Renaissance and were developed from earlier instruments, specifically the pipe organ and the psaltery. The clavichord was thought to have been developed towards the end of the Medieval period and became a prominent instrument for courtly performances either solo or in small ensembles despite its low acoustic power that did not carry well in larger performance spaces.



**Modern Reproduction of 14<sup>th</sup> Century Clavichord**

The earliest known reference to the harpsichord dates from 1397, but Henri Amault de Zwolle in 1440 illustrates in a musical instrument book the standard harpsichord mechanism, with jacks holding plectra mounted on retractable tongues, and the strings perpendicular to the keyboard. Because of its larger size and greater acoustic power, the harpsichord was used in both solo and larger ensemble performances.



**Modern Reproduction of an English Harpsichord**

Woodwind and brass instruments were refined during the Renaissance and included in many compositions. The shawm, precursor to the oboe and clarinet, transverse flute, and recorders were increasingly used in

performance. Brass instruments including the sackbutt, precursor of the trombone, and valveless trumpets were also used in ensembles.

### **Composers and Compositions**

William Byrd

My Lord Oxenford's March

John Dowland

Viol Consort with Lute

Michael Praetorius

Terpsichore (300 Instrumental Dances)

Henry Purcell

The Queen's Dolour (A Farewell)

Phantazias

### **Performance Spaces**

Secular music was frequently performed in the houses of patrons. One of the most prolific Renaissance arts patrons was the Medici family. Their villa in Florence, the Palazzo Medici Riccardi, was commissioned by Cosimo de' Medici in 1444 and designed by the architect Michelozzo Michelozzi (1396-1472). Music was frequently performed in the villa's many stately rooms. These rooms were large, had high ceilings, and were finished in marble, plaster frescoes, and stone floors. Even though many of the rooms had tapestries and carpets, reverberation times typically exceeded 2 seconds.



**Interior of Medici Palace Music Room**

## **Baroque Period – 1600 to 1730**

During the Baroque period the royal court became a powerful political entity as exemplified by Louis XIV of France. Under the court system arts patronage increased, and along with the beginnings of an educated middle class, a demand for private and public concerts resulted. The rise in music instrument production helped foster a larger number of performing musicians, both amateur and professional.

### **Music Practices and Instruments**

Baroque music can be considered to have its origins and major developments in Italy. The complex polyphony of the Renaissance was initially rejected and a more simplistic solo melody with a basic accompaniment, much like Greek music ideals, was sought. A multifaceted compositional vocabulary evolved along with writing for specific instruments, which encouraged performers to improvise, and gave rise to the cult of the instrumental virtuosi. Instrumentalists developed playing techniques such as tremolo, vibrato, pizzicato, and other tonal enhancements specific to their instruments.

Music composition mirrored the abilities of performers. Ornamentation, such as dotted rhythms, major and minor tonalities, increased use of polyphony and counterpoint, and different musical forms developed. The concept of functional tonality, music written through scale and chord progressions, was promoted by Jean-Philippe Rameau's book Treatise on Harmony (1722).

Different performance formats included dance suites, concerti for solo and instrumental groups, the concerto grosso for small ensemble and larger orchestra, fugue, overture, and the basso continuo, central for chamber music. For keyboards, equal temperament was introduced.

The trio sonata format emerged as a new style of composition. The format extended composition to three or four movements with the bass part, the basso continuo, taking a supporting role giving the solo melodic instruments new freedom for artistic expression. The basso continuo format, often shortened to continuo, provided harmonic structure for the music. Like much Baroque music, the makeup of the continuo group was at the player's discretion leading to enormous instrumental variety, but often comprising four players. At least one instrument capable of playing chords was included, such as the harpsichord, organ, lute, guitar, or harp. In addition, an instrument that played in the bass register was included, such as the cello, double bass, bass viol, viola da gamba, or bassoon. The keyboard or other chording instrument player *realized* a continuo part by playing, in addition to the indicated bass notes, upper notes to complete chords, either determined ahead of time or improvised in performance. The figured bass notation served as a guide, but performers used their musical judgment and the other instruments as a guide. Often two solo instruments, such as violins or woodwinds, provided the high pitched melody.

Two instruments were realized in the Baroque period and influenced music thereafter: the piano and the violin.

The piano, originally called pianoforte, is credited to Bartolomeo Cristofori (1655 to 1731) who was employed by the de Medici family of Padua as Keeper of Instruments. Cristofori was an expert harpsichord maker and was aware of the design of prior keyboard instruments. It is believed the first successful piano was built in 1700. Cristofori's genius was solving the fundamental mechanical problem of piano design: the hammer must strike the string, but not remain in contact with it (as a tangent remains in contact with a clavichord string) because this will damp the string's vibration. Moreover, the hammer must return to its rest position without excessive rebound and repeated notes must be played rapidly. In contrast to the clavichord and harpsichord, the piano had greater acoustic power enabling it to fill the larger performance spaces with sound.



**Cristofori Piano of 1720**

The violin evolved from earlier bowed stringed instrument precedents such as the vielle, rebec, and lira da braccio. By the mid 1500s the Italian cities of Brescia and Cremona were known as centers of stringed instrument making. Gasparo da Salò, active between 1530 and 1615 is credited with developing the form of the modern violin. The Cremonese school of violin making produced the Niccolò Amati family, active until 1740, the Giuseppe Bartolomeo Guarneri family, active between 1626 and 1744, and the Stradivari family, active between 1644 and 1737. These craftsmen were just common instrument makers in their day producing stringed instruments of all kinds (violin, viola, cello, guitar, and mandolin) for contemporary players and the royal court orchestras. Little did they know their works, of which less than 500 are extant, would fetch prices in excess of \$3M USD 300 years later.



**Painting of Stradivarius in His Workshop Examining an Instrument in the White**

## Composers and Compositions

Johann Sebastian Bach

Sonatas for Violin and Harpsichord, BWV 1014 to 1019a

Sonatas for Viola da Gamba and Harpsichord, BWV 1028 and 1029

Trio Sonata for Flute and Continuo, BWV 1039

Henry Purcell

Sonatas in Three Parts, opus 790 to 801

Archangelo Corelli

12 Sonatas da Camera (Trio Sonatas for 2 Violins and Continuo), opus 1 to 6

George Frederick Handel

Sonata for Oboe and Basso Continuo, HWV 365 to 369

Trio Sonata for Oboe and Violin, HWV 365 to 369

## Performance Spaces

Courtly palaces were built with little regard for cost and utilized the most exquisite materials and finishes executed by the finest craftsmen. Most palaces had opera and instrumental music performance rooms. The opera rooms could accommodate larger audiences than the instrumental rooms. Like the Medieval palaces, acoustic conditions were likely moderately reverberant, 1.5 to 3 seconds, in the instrumental rooms.



**Versailles Palace Music Room in Louis XIV Apartment – Pool Table Installed by Louis XVI**

## **Classical Period – 1730 to 1820**

The Classical period in Europe started in the mid 18<sup>th</sup> century with a movement in the arts towards emulating the ideals of classical antiquity. Still linked to the royal courts, with formality and an emphasis on order, the new style was simpler than the Baroque aesthetic. The aristocratic system in Europe started to crumble during this period due to new social orders and larger numbers of middle class citizens. This forced composers and performers to become more self-sufficient.

### **Music Practices and Instruments**

The Classical period is often referred to as the era of the First Viennese School since Wolfgang Amadeus Mozart, Joseph Haydn, Ludwig van Beethoven, and Franz Schubert all worked in Vienna.

While many composers worked under the patronage system to produce music for their courtly employers, they and others increasingly had to make a living by selling their music to publishers. Self-promoted concert series where compositions were performed by professional musicians to a paying audience was another revenue stream for composers. Since the composers had to pay for rehearsal time, an emphasis on simpler music that could be performed with minimal rehearsal time became paramount.

Music of the Classical period has a lighter, clearer texture than Baroque music and is less complex overall. The importance of the continuo form was lessened by composers who mostly wrote in a homophonic style with melody above chordal accompaniment. Variety and contrast within a piece, including musical phrases repeated by different instruments, became more pronounced than before. Instrumentation within performance groups was standardized and less was left to the interpretation of the performer.

Many composers of the Classical period relied on aristocrats who were advanced amateur players and delighted in music making as a means to entertain guests or family. The development of chamber music as it is known today can be traced to this direct employer-artist relationship. Joseph Haydn was an employee of Count Nikolaus Esterházy, an amateur baryton (large string instrument related to the viol family) player; Mozart wrote string quartets for Frederick William II, King of Prussia who played cello; and Beethoven wrote string quartets that were performed by Count Andry Razumovsky a violin player and Prince Joseph Lobkowitz commissioned his opus 18 string quartets.

Haydn (1732 to 1809) is credited with creating the modern form of the string quartet, although other composers prior to him experimented in this form. His composition style, with its characteristic conversational theme, dominated chamber music writing for two centuries. Haydn wrote chamber music for many instrumental groups besides the string quartet: piano trio, string trio, wind ensembles, and a variety of duos. He is probably best known for the 83 string quartets that he wrote.

The characteristic string quartet has four movements: (1) an opening movement in sonata form; (2) a lyrical movement in slow or moderate tempo; (3) a minuet or scherzo in  $\frac{3}{4}$  time; and (4) a fast finale in rondo form.

Wolfgang Amadeus Mozart (1756 to 1791) expanded the vocabulary and format of chamber music developed by Haydn. He sought out new musical instruments to add to his repertory, notably the clarinet, and wrote chamber music for larger ensembles, including string quintets and combinations of string quartet with woodwind instruments. His string quartets are considered the pinnacle of the classical form. He wrote 23 string quartets, including six dedicated to his mentor Joseph Haydn. Mozart was one of the first composers to use the pianoforte as his primary compositional instrument.



**Joseph Haydn playing viola in a string quartet**

Ludwig van Beethoven (1770 to 1827) transformed chamber music in terms of compositional form and the demands made on performers and audience. His first public exposure was through his piano trios opus 1 in 1791 but his opus 20 septet composed in 1800 for clarinet, horn, bassoon, violin, viola, cello, and contrabass, dedicated to Empress Maria Theresa, established him as a popular composer. The septet is written as a classical divertimento in six movements, including two minuets, and a set of variations. It is full of memorable tunes, with solos for everyone, including the contrabass. Opus 20 and various transcriptions of it for other instruments was such a success that Beethoven feared it would eclipse his future works.

While Beethoven could write music that received acceptance by public and performers, his 17 string quartets show another side of the composer. His middle and late string quartets were considered unplayable and challenged composers, such as Johannes Brahms, who tore up 20 quartets before he was able to write a string quartet to his satisfaction. Beethoven's string quartets are subdivided into early (opus 18 string quartets 1 to 6), middle (opus 59, 74, and 95 string quartets 7 to 11), and late (opus 127, 130 through 133, and 135 string quartets 12 to 17). The early quartets were written in the classical style, but the quartet number 6 interleaved a slow section within a dance section. The middle quartets are considered pioneers of the romantic style. The opus 59 quartets were commissioned for Count Razumovsky who played second violin in the premier. These quartets are some of the most difficult to play in the Classical literature due to the cross-rhythms and syncopated sixteenth, thirty-second, and sixty-fourth (!) notes. His late quartets are compositions of great introspection probably due to the personal toll his increasing deafness was taking. The normal string quartet conversation is disjointed, almost like a stream of consciousness and new effects such as *sul ponticello* (bowing the strings close to the bridge) were introduced in the late quartets.

In all, Beethoven's chamber music output included eight piano trios, five string trios, two string quintets, 10 sonatas for violin and piano, five sonatas for cello and piano, plus many wind ensemble compositions.

Franz Schubert (1797-1828) was a prolific composer who wrote over 1000 pieces, of which over 40 were for chamber music. Appreciation for Schubert's music did not come until years after his death. He was not financially successful as other composers and lived a bohemian life in the Vienna garrotes often imposing on friends for a place to live.

Schubert admired Beethoven and Mozart and borrowed from their compositional methods. He developed his own style which progressed rapidly during his short life. A feature of many compositions was quirky tonal modulation in which the first section ends in the key of a subdominant rather than the dominant. This was a forerunner of the Romantic technique of raising tension in the middle of a movement, with the final resolution coming at the end.

Schubert wrote 15 string quartets, with the most famous being the “Rosamunde” string quartet number 13 in A minor and the “Death and the Maiden” quartet number 14 in D minor. He was capable of writing light, sunny music such as the “Trout” Piano Quintet composed for piano, violin, viola, cello, and contrabass written for Sylvester Paumgartner, a wealthy patron and amateur cellist. His octet composed for noted clarinetist Ferdinand Troyer and performed in Archduke Rudolf’s home – the same nobleman to whom Beethoven wrote his Archduke Piano Trio – was composed for two violins, viola, cello, contrabass, clarinet, horn, and bassoon.

The craft of instrument making advanced during the Classical period bringing about new instruments, such as the clarinet, improving the projecting power of the stringed instruments, and replacing others, in the case of the piano superseding the harpsichord. The clarinet was invented by Johann Denner who added a register key and vibrating reed to the earlier chalumeau, an instrument similar to a recorder, resulting in greater acoustic power and wider tonal range. Stringed instruments had higher string tensions to increase acoustic output, which required a heavier bass bar on the top plate. The neck length and angle was modified to enable easier playing in the higher registers. A major advancement in string playing came with the invention of the modern bow by François Tourte (1747-1835), called the Stradivari of bows. His bows used a convex stick shape which enabled higher downward pressure to be applied to the strings resulting in greater acoustic output from the violin. His longer bows enabled players to execute cantabile and martelé bowing techniques expanding the range of the violinist’s sounds. The use of the piano as the primary keyboard instrument – with its greater acoustic output – enabled the instrument to compete with larger instrumental ensembles which increasingly performed in bigger concert venues.

## **Composers and Compositions**

### Beethoven

- Piano Trios 1, 2, and 3, opus 1
- Piano Trio “Archduke” opus 97
- Septet, opus 20
- String Quartets 1 to 6, opus 18 (Early Quartets)
- String Quartets 7 to 11, opus 59, 74, 95 (Middle Quartets)
- String Quartets 12 to 17, opus 127, 130 to 133, and 135 (Late Quartets)

### Haydn

- String Quartets 4, 5, and 6, opus 20 (Sun Quartets)
- String Quartet No. 2, opus 33 (Joke Quartet)
- String Quartets Nos. 1 and 2, opus 77 (Lobkowitz Quartets)

### Mozart

- String Quartets, Koechel 387, 421, 428, 458, 464, and 465 (Haydn Quartets)
- String Quartet, Koechel 458 (Hunt Quartet)
- Quintet for Clarinet and Strings, Koechel 581 (Stadler Quintet)
- Trio for Clarinet, Viola and Piano, Koechel 498 (Kegelstatt Trio)
- Viola Quintets, Koechel 515, 516, 593, and 614

## Schubert

String Quartet 13, Deutsch 804 (Rosemunde)  
String Quartet 14, Deutsch 810 (Death and the Maiden Quartet)  
Quintet for Piano and Strings, Deutsch 667 (Trout Quintet)  
Octet, Deutsch 803

## Performance Spaces

Performance spaces in the Classical period included public taverns, houses of royalty, and the first public concert halls.

Enterprising composers and impresarios used public taverns as ad-hoc performance spaces. Often the upstairs room would be set-up for a performance to be given in the late afternoon. Many of these taverns become known as public music rooms while others strived for a more genteel clientele and established private music clubs not open to the hoi polloi. London was noted for its numerous music rooms.

The Esterházy family of Hungary built several court palaces, one of the most famous being in Eisenstadt, where Haydn was court composer and conductor between 1761 and 1791. Many of his chamber music pieces, such as the Imperial Quartet, were composed and performed in the Empire Hall. The hall was originally a dining room and was remodeled into a concert hall around 1800. Seating approximately 180, the room is roughly 30 ft by 60 ft by 20 ft high and has reverberation time of 1.5 seconds.



**Empire Hall Esterházy Palace**

The Holywell Music Room in Oxford, UK is probably the oldest purpose-built concert hall in Europe, opening in 1748. Designed by Thomas Camplin, Vice-Principal of St. Edmund Hall, the building was the brainchild of William Hayes, then Professor of Music at Oxford University. The project was funded by public subscription established in 1742 to defray the construction costs of £1,263. The room continued as a concert venue throughout the eighteenth century and until 1836, from which time it was used for a number of other events, including auctions and exhibitions. The room has a volume of 58,600 ft<sup>3</sup> is nominally of 65 ft by 32 ft by 28 ft high with an apselike rear. Seating is on several steep levels surrounding the sides and rear. The front of the room has a small pipe organ, built in 1790 by John Donaldson of Newcastle but the platform is

awkward for all but the smallest chamber ensemble. Acoustic measurements indicate reverberation time of 1.5 seconds.



**Holywell Music Room Oxford, UK**

## **Romantic Period – 1820 to 1910**

The Romantic period was the age of the industrial revolution which brought profound changes in socioeconomic, technical, and cultural conditions. One byproduct was an increase in the standard of living for many people resulting in greater leisure time in which to pursue activities such as the arts and music.

### **Music Practices and Instruments**

The 19<sup>th</sup> century saw the growth of amateur performance societies that sponsored numerous musical groups, gave house concerts, compiled music lending libraries, and encouraged music making. The ascendancy of notable professional conductors, soloists, and chamber music groups that toured the major cities raised the overall standard of music performance and the public's awareness of music as an art form.

Different philosophical ideals on music emerged around 1860 that questioned traditional and new music forms. One group, led by Richard Wagner and Franz Liszt felt that “absolute” music, exemplified by Beethoven, had ended and a more programmatic format (one that invites the audience to imagine an extra-musical theme) was necessary to advance music. The other group led by Johannes Brahms and Clara Schumann espoused absolute music and excluded extra-musical associations. Supporters of absolute music advocated chamber music as a pure music form.

Johannes Brahms (1833-1897) wrote music that bridged the classical to the modern. He was both a traditionalist, honoring Bach and Mozart by using counterpoint and fugues, but expanding the ideas of traditional harmony and tonality. His second string septet opus 36 starts in the home (dominant) key but by the third measure has changed to an unrelated key. Further development of the piece modulates through other keys before finally returning to the dominant key. Brahms composed 24 chamber music pieces including three

string quartets, five piano trios, and numerous trio and duo pieces for clarinet, horn, and viola.

Two themes became part of late 19<sup>th</sup> century chamber music composition: nationalism and impressionism. Nationalism was particularly strong with Austro-Hungarian composers and became a unifying means to express national identity. Composers such as Antonín Dvořák (1841-1904), Zoltán Kodály (1882-1967), and Béla Bartók (1881-1945) sought out national or folk idioms to express in their music. This did not have to restrict itself to their homeland as Dvořák incorporated native American Indian songs, which he heard while visiting a Czech immigrant community in Spillville, Iowa, in his string quartet in F major opus 96 (the “American”). A prolific composer, Dvořák wrote 14 string quartets, three string quintets, two piano quartets, a string sextet, four piano trios, and numerous other pieces. Bartók and Kodály were some of the first ethnomusicologists. They transcribed, classified, and recorded thousands of folk melodies of their native Hungary which were used in many of their compositions.

New sonorities, tonality, and structure were developed in 19<sup>th</sup> century chamber exemplified by the French impressionist school that included Claude Debussy (1862-1918), César Franck (1822-1900), and Gabriel Fauré (1845-1924). Their music is characterized by suggestion and atmosphere which favored shorter forms such as the nocturne, arabesque, and prelude. Compositional themes included use of uncommon scales such as the whole tone scale, 7<sup>th</sup> chords, and extending chords to include 3rds, 5ths, and six part harmonies. A feature of the French school, promoted by César Franck, was the cyclic form which sought to attain unity among several movements in which all of the principal themes of the work are generated from a central motif and repeated in the different movements. Two important works in this style are Franck’s piano quintet in F minor composed in 1879 and Debussy’s string quartet opus 10 of 1893 which used sonorities of the gamelan.

Béla Bartók began as a late Romantic composer but soon became dissatisfied with this idiom. In 1904 he began collecting folk music of his native Magyar region. In folk music he found elements that he began to incorporate into his own writing. The folk tune melodies, removed from the traditional major or minor tonality, provided new melodic and harmonic resources, and the powerful and often asymmetrical rhythms interchanging duple and triple meter became a hallmark of Bartók’s rhythmic style. Bartók’s major chamber music accomplishment was his six string quartets of 1908 to 1939 which are often compared with Beethoven’s late quartets. In his quartets he builds new musical structures, explores sonorities not previously produced in classical music (for example, the snap pizzicato, where the player lifts the string and lets it snap back on the fingerboard with an audible buzz), and creates modes of expression that set these works apart from all others. Bartók’s changed 20<sup>th</sup> century musical ideas by breaking down the reliance on the diatonic system of harmony.

### **Composers and Compositions**

Béla Bartók

String Quartets 1 to 6

Johannes Brahms

String Sextets, opus 18 and 36

Piano Quartets, opus 25 and 26

String Quartet, opus 51 and 67

Claude Debussy

String Quartet, opus 10

Sonata No. 2 for Flute, Viola, and Harp

Antonín Dvořák

Piano Quartet, opus 87

Piano Trio, opus 90 (Dumky)

String Quartet, opus 96 (American)

Gabriel Fauré

Piano Quartet, opus 15

César Franck

Piano Quintet

### **Performance Spaces**

Public concert halls became a fixture in most large European and North American cities during the Romantic period. Most performance spaces that were built were intended for orchestras, however smaller halls for lectures and chamber music were often adjunct to the larger hall. Piano showrooms in major cities often had a small recital room in which performances were given.

Wigmore Hall in London is synonymous for chamber music and is considered one of the greatest chamber music performance halls built, albeit a bit romanticized due to its who's who roster of musicians that have graced its stage. Built in 1901 as a piano performance room – Bechstein Hall – for the London branch of the namesake German piano manufacturer, the hall was renamed in 1917 as Wigmore Hall after British take-over.

The architect was Thomas Edward Collcutt, FRIBA. The room is 85 ft by 43 ft and features a barrel valued ceiling 40 ft high with skylights and a small rear balcony. Sumptuously appointed in a quasi arts and crafts style with a cupola as part of a small alcove-shaped stage, and seating 540 mostly on a flat floor, the room in many regards is the antithesis of modern acoustic design practices. Occupied reverberation time is 1.5 seconds.



**Wigmore Hall, London England**

## Modern Period – 1910 to Present

Music of the Modern Period is considered by many to be a direct reflection on world events, notably two world wars, changing societal values, and the quickening pace of technology.

### Music Practices and Instruments

Distinct trends in chamber music occurred in the Modern Period as music became increasingly divided and composers diverged in style. Music from 1910 to 1930 is called new music due to composers experimenting with atonality and 12-tone serialism. The period from 1930 to 1950 is characterized by neo-classicism with its longing to return to older traditions. After 1950 new forms of composition such as absolute serialism were promoted. The 1950s and 1960s saw indeterminism and the 1960s and 1970s embraced minimalism as new compositional forms.

Maurice Ravel (1875-1937) straddled the Romantic and Modern periods but composed primarily in the French impressionist manner, even though he resented the term; he considered his later compositions to be classicist.

Arnold Schoenberg (1874-1951) is associated with new music and the Second Viennese School, which included Anton Weber and Alban Berg. While widely known for the twelve-tone compositional technique, Schoenberg went through three stylistic periods. The first of these (1894–1907) is identified in the legacy of the Romantic composers of the late 19<sup>th</sup> century. The second (1908–1922) is typified by the abandonment of tonal centers, a move often described as “free atonality”. The third from 1923 onward commences with Schoenberg’s invention of dodecaphonic, or “twelve-tone”, compositional method. The “twelve-tone” technique ensures that all 12 notes of the chromatic scale are sounded as often as one another in a composition while preventing the emphasis of any one note through the use of tone rows, an ordering of the 12 chromatic pitches. All 12 notes are thus given more or less equal importance, and the music avoids centering on a specific key. Schoenberg’s 12 note serial technique of composition became one of the most central and polemical issues among American and European musicians during the mid to late 20<sup>th</sup> century. Schoenberg wrote four string quartets and three string trios for chamber music.

Neo-classicism was a reaction to the musical experimentation of the early part of the century and was an attempt by composers to reconnect with earlier musical tradition. Composers such as Igor Stravinsky (1882-1971), Paul Hindemith (1895-1963), Sergei Prokofiev (1891-1953), Dmitri Shostakovich (1906-1975), and Aaron Copland (1900-1990) accepted this practice while holding on to their unique musical concepts. The aim was not to revive old musical idioms but to simply acknowledge past tradition.

Absolute serialism was a composition school that developed in Europe after World War II. Serialist composers did not “write” music in the traditional sense, but rather created music through mathematical methods. To serialize elements of music, a system quantifying an identifiable element was defined, called a “parameterization”. For example, if duration was to be serialized, then a set of durations must be specified. If tone color, then a set of separate tone colors was identified, et cetera. The selected set or sets allowed permutations to be derived from the basic compositional material. Notable composers included Karlheinz Stockhausen (1928-2007), Olivier Messiaen (1908-1992), and Pierre Boulez (1925-), although they all abandoned the technique by 1960.

Indeterminism or aleatoric music was a composition theory that left some element of the composition to chance or an element was to be determined by the performers. Composer Charles Ives (1874-1954) experimented with the form, but the technique was extensively used by Pierre Boulez, Karlheinz Stockhausen, and John Cage (1912-1992). Examples include Stockhausen’s 1959 piece *Klavierstück XI* and Cage’s 1969 piece *HPSCHD*.

Minimalism is a music style that uses miniscule changes to music over an extended length of time creating a near-hypnotic effect. It caught on in San Francisco and New York starting in the late 1960s but was originally conceived by Terry Riley in the early 1960s with his composition *In C*. The music is generally associated with amplified instruments, tape loops, and other electronic sound manipulation often with repetitive rhythmic accompaniment. Other successful composers include Steve Reich, Phillip Glass, and John Adams.

### **Performance Spaces**

The number of purpose-built chamber music halls constructed during the Modern Period is less than the number of symphonic halls built during the same period.

The Coolidge Auditorium in the Thomas Jefferson Building of the Library of Congress in Washington, DC opened in 1925 and was named after Elizabeth Sprague Coolidge, who paid for the auditorium's construction costs. The auditorium was completed after a six month construction period. Mrs. Coolidge was an amateur pianist who inherited a large sum of money from her parents and late husband. Her life was dedicated to philanthropy in medicine and the arts. Her desire was to have an auditorium dedicated to chamber music and to serve as a venue for the premieres of the chamber music she commissioned.

The auditorium was designed by architect Charles Adams Platt, one of New York society's favored architects, known more for interior decorating and gardens than actual building design. As instructed by Mrs. Coolidge the auditorium style was to be "of severe and chaste beauty" rather than "ornate display". The Coolidge Auditorium was located in the basement of the Thomas Jefferson Building so Platt's role was more decorator than architect. It is not known if he worked with any acoustic consultant. The room has a seating capacity of 500 on a steeply raked floor and a generous stage. Reverberation time is 1.5 seconds. In the 1990s the room underwent renovations under the guidance of the late George Izenour.

Many landmark 20<sup>th</sup> century works were commissioned by Mrs. Coolidge and were premiered in the Coolidge Auditorium: Stravinsky's *Apollon Musagète*, Ravel's *Chansons Madécasses*, Bliss' *Oboe Quartet*, Copeland's *Appalachian Spring*, and string quartets by Bartók, Schoenberg, Britten, Prokofiev, and Webern. Mrs. Coolidge unabashedly supported contemporary composers as she wished to see chamber music progress regardless of genre or compositional style.



#### **Coolidge Auditorium at Library of Congress**

The construction of the Berlin chamber music hall (Kammermusiksaal) in 1987 completed architect Hans Scharoun's concept for the "Kulturforum" almost thirty years after construction had started on the 1960 Berlin Philharmonie concert hall. The design of the Kammermusiksaal was influenced significantly by the design of the Philharmonie, and executed by Edgar Wisniewski, a pupil of Scharoun. The building is designed from the inside-out, with steeply raked seating blocks accommodating the audience of 1123 in a 360° arc around the central stage. The seats are configured to allow moving ensembles for experimental music, in which performers are placed in multiple locations. Like the Philharmonie, the Kammermusiksaal has vineyard seating to provide early reflections. Due to its large volume, the reverberation time is a generous 1.8 seconds.



**Berlin Kammermusiksaal**

### **Composers and Compositions**

Alban Berg

Lyric Suite

Pierre Boulez

Repoñs

Le Marteau sans le Maître

Olivier Messiaen

Quartet for the End of Time

Sergei Prokofiev

Violin Concerto opus 80

Cello Concerto, opus 119

Maurice Ravel

String Quartet

Piano Trio

Terry Riley

In C

Steve Reich

Music for 18 Musicians

Arnold Schoenberg  
String Quartets 1 to 4, opus 7, 10, 30, and 37  
String Trio, opus 45

Dmitri Shostakovich  
15 String Quartets

Karlheinz Stockhausen  
Klavierstück XI

## Future

Chamber music as an amateur avocation is on the rebound after a decline during the period between 1950 and 1990. Many attribute this due to the influx of home electronic music systems and television. The number of professional and semi-professional chamber music groups has steadily increased during this same period. The number of performance venues both traditional and “found spaces”, along with local chamber music advocates and societies, should provide a promising future for chamber music.

An example of a modern recital hall is Zaha Hadid’s temporary chamber music hall for the City of Manchester in England used for a series of concerts of Bach’s chamber music.

Contemporary composers are writing chamber pieces and the music even has several young superstar groups such as the Ahn Trio, The Browns, and Red Priest, capable of connecting with a younger generation. Concert promoters and educators realize that it is imperative to reach out to younger listeners to secure future audiences for this vital art form.



**Temporary Chamber Music Space by Zaha Hadid**

## **Bibliography**

### **Books**

Berger, Melvin. Guide to Chamber Music. Mineola, NY: Dover Publications, Inc, 2001.

Forsyth, Michael. Buildings for Music. Cambridge, MA: MIT Press, 1985.

Izenour, George. Roofed Theaters of Classical Antiquity. New Haven, CT: Yale University Press, 1992.

Grout, Donald J. A History of Western Music, Revised Edition. New York, NY: W.W. Norton & Company, 1973.

Meyer, Jürgen. Acoustics and the Performance of Music. New York, NY: Springer, 2009.

Scholes, Percy A. The Oxford Companion to Music 10<sup>th</sup> Edition. Oxford, UK: Oxford University Press, 1997.

### **Electronic Media**

“Baroque Music”, Wikipedia. 12 May 2010. <[http://en.wikipedia.org/wiki/Baroque\\_music](http://en.wikipedia.org/wiki/Baroque_music)>.

“Chamber Music”. Wikipedia. 9 May 2010. <[http://en.wikipedia.org/wiki/Chamber\\_music](http://en.wikipedia.org/wiki/Chamber_music)>.

“Classical Music”. Wikipedia. 12 May 2010. <[http://en.wikipedia.org/wiki/Classical\\_music](http://en.wikipedia.org/wiki/Classical_music)>.

“Modern Music”, Wikipedia. 9 May 2010. <[http://en.wikipedia.org/wiki/Modern\\_music](http://en.wikipedia.org/wiki/Modern_music)>.

“Romantic Music”, Wikipedia. 9 May 2010. <[http://en.wikipedia.org/wiki/Romantic\\_music](http://en.wikipedia.org/wiki/Romantic_music)>.