



## Lesson One: the basics

### Lesson Overview

- Discuss the **History** and **Design** of the piano
- Show how this knowledge can help us learn and play
- Define a **Key, Sound, and Note**
- Learn the **12 musical notes**
- Illustrate how to **locate the 12 musical notes** on the piano
- **Discuss the 12 musical notes**
- Explore why the piano has **88 keys**
- Discuss rhythm and the **piano as a rhythmic instrument**
- **Use what we have learned to play music**

# *The Piano & its Design*

Whether you are playing on a keyboard, an upright piano, or a concert grand, we need to start this course with a brief examination of this great instrument.

Have you ever gazed at the unique design of the piano? Maybe you went to a live concert in which a pianist played such clear sounds and produced bass so deep that it felt like the piano had speakers, and you wondered how a piano could sound like that.

Have you ever wondered how pianists can play so fast with so many notes?

You might have asked some more questions like:

- How does a piano work?
- Why are there so many keys?
- Why are there three pedals?
- Who created the piano?

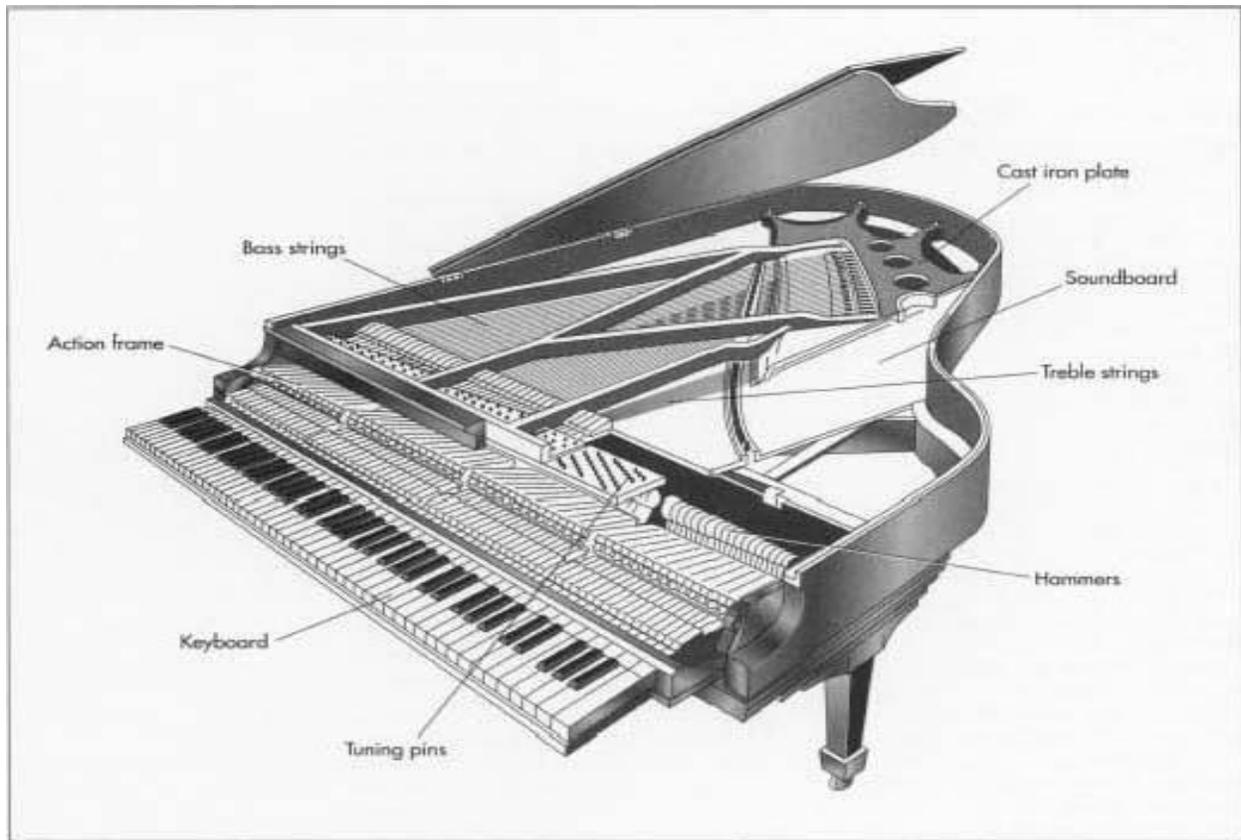
So let's examine the **PIANO**

First, let's start with a brief history. A great invention is not created solely because of a great idea, but also as a result of specific historical, technological, and social conditions. These conditions came together to allow for the successful creation of the piano.

The piano was invented in the early 1700s by **Bartolomeo Cristofori**. It was originally called a **grand cembalo con piano e forte**, or **pianoforte** for short, and it evolved from the **harpsichord**. The harpsichord could not produce gradation of sound – when you hit a note on the harpsichord, the sound was either loud or soft – but the pianoforte (the name actually translates to “soft loud”) is an instrument that is able to produce a great gradation, or wide range, of volume, creating dramatic and emotional music.

Later, the name was shortened once again to **PIANO**

## Let's take a look at the **PIANO**



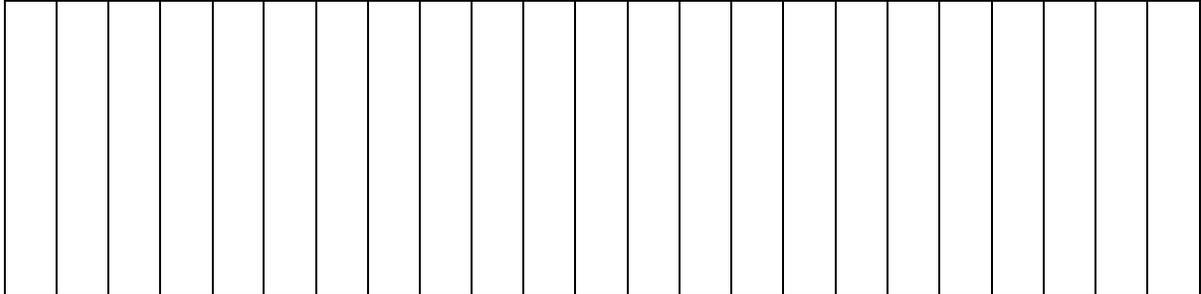
Everything about the design of the piano has a purpose: **to make the music sound great**. Every design aspect is functional. There is nothing decadent about the design of the piano. The piano is an elegant instrument.

*When you first observe the keys of the piano, what do you notice?*

- Some keys are black, some are white
- The black keys are raised higher than the white keys
- There is a repeating pattern of black keys and white keys

## *Why are some keys black and some white?*

Let's look at a keyboard with only white keys



As you can see, it would be extremely difficult to locate the keys on an all-white keyboard.

The designers of the piano needed a functioning keyboard that allowed piano players to navigate their way around it, so they gave us **landmarks**. With a combination of **white keys** and **raised black keys**, we can easily find the same note at different locations on the piano.

The raised keys function like the bumps in **Braille**; when pianists get to higher levels of playing, they can't look down to see all of the notes they're playing because they've got to read the sheet music. When they are not looking at the keyboard, a piano player must rely on **the raised keys so they can feel where they are**.

*Let's define some important terms*

### **Key, Sound, and Note**

Most of us have heard the term **key** used in a variety of ways. You might have heard of someone singing out of key, or heard someone ask what key a song is in. In music, the term **key** can be and *is* used in many ways.

*Let's start by defining key as it pertains to the black and white keys on the piano*

When we speak of the keys on the piano, we are referring to the physical object on the piano that we strike in order to make a musical sound.

Each **key** will make its own **sound**.

A **sound** is simply a **wave of vibrating air** that occurs when any **key** of the piano moves a **hammer**. The **hammer** hits a string and causes a vibration.



The vibration of the string causes a **sound wave** to travel outward from the string to our ears, and we hear a **sound**.

We recognize it as a **musical sound**.

We call the **musical sound** that we hear a note, and we give a **note name**.

# The Musical Notes

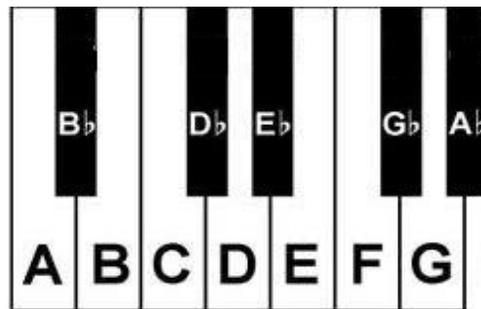
In Western culture, we use 12 different notes.

**All the music that you hear is constructed with just 12 notes!**

*Note: Not every musical language consists of 12 notes. Indian music, for example, contains more letters or notes in their musical alphabet. This is an example of how and why Western music sounds different than the music of other cultures.*

We understand that our English alphabet was created so that we can create words to facilitate communication with each other. In the same respect, western **music use 12 notes as its alphabet**, that we combine to make music.

## THE TWELVE MUSICAL NOTES



The white and black keys are all notes. They are all equally important.

Here you are looking at the notes A, B, C, D, E, F, and G on the white keys, and on the black keys, B flat, D flat, E flat, G flat, and A flat.

*Note: The  $b$  symbol is just the name given to that note.*

*We'll talk about the names of the black keys in a bit!*



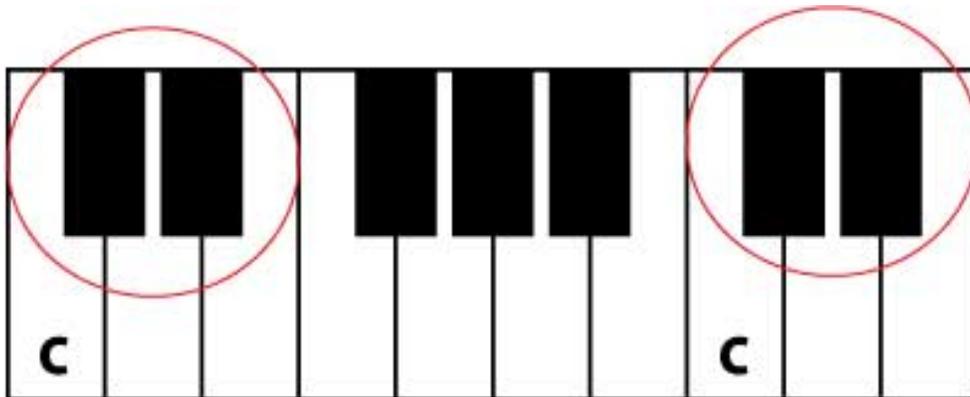
## LOCATING THE WHITE NOTES

### A B C D E F G

This isn't the English alphabet, though it looks like it, so we don't need to start with A. We can start on any note, so let's start with **C** and locate all the white notes

### *LET'S TAKE A LOOK*

In this example, the note **C** is shown. Notice that **C** is the note *directly* to the **left of the two black raised keys**. Thanks to the **landmarks**, we can confidently find any **C** on the piano!



Every **C** on the piano is the key to the left of the two black keys!

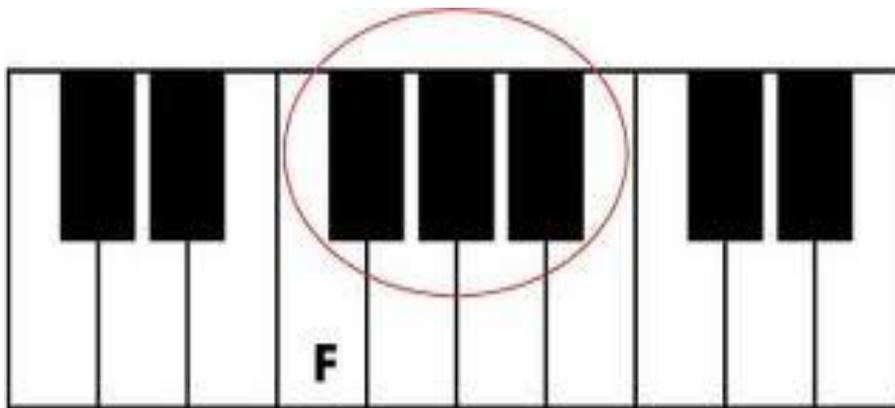
Notice the pattern: **two black keys then three black keys**

*This pattern repeats throughout the keyboard.*

*Try to locate every C on the piano; first with your dominate hand and then with the other.*

## LET'S FIND ANOTHER WHITE NOTE

In this example the note **F** is shown. Thanks to the landmarks, we can confidently find any **F** on the piano!



Every **F** on the piano is the key to the left of the three black keys!

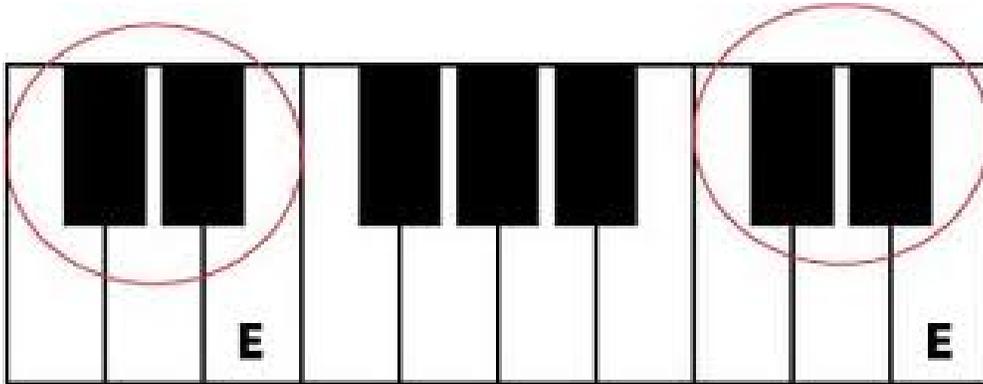
Notice the pattern: **two black keys then three black keys**

*This pattern repeats throughout the keyboard.*

*Try to locate every F on the piano; first with your dominate hand and then with the other.*

## LET'S FIND SOME MORE WHITE NOTES

In this example the note **E** is shown. Thanks to the landmarks, we can confidently find any **E** on the piano!



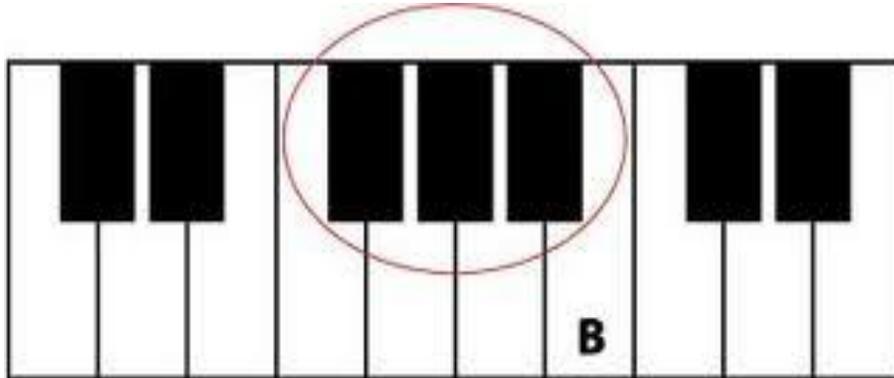
**E** is to the right of the two black keys

Notice the pattern: **two black keys then three black keys**

*This pattern repeats throughout the keyboard.*

*Try to locate every E on the piano; first with your dominate hand and then with the other.*

In this example the note **B** is shown. Thanks to the landmarks, we can confidently find any **B** on the piano!



Notice: that **B** is to the right of the three black keys

Notice the pattern: **two black keys then three black keys**

*This pattern repeats throughout the keyboard.*

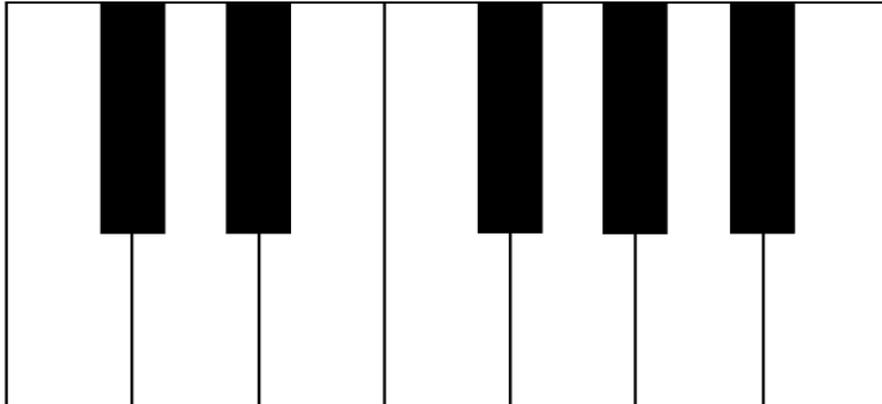
*Try to locate every B on the piano; first with your dominate hand and then with the other.*

## LET'S FIND THE REMAINING NOTES

Don't worry, we will name the black notes later!

**REMEMBER:** every note is equally important!

So, what you know so far is...



**C**

**E**

**F**

**B**

Can you use what you already know to figure out the names of the rest of the white keys?



*Try to locate every D, G and A on the piano. Play them up and down the piano, in all octaves.*

*Before you move on, make sure you can confidently locate the 7 white notes.*

# Let's Play Some Music

**First: let's make a list of musical tools that we have learned so far.**

- we press a key, that moves a hammer, that hits a string, causing a wave; a sound wave that travels to our ear. We hear it as a musical sound and give that sound a note name.
- there are twelve notes that repeat themselves up the piano, giving us a range of voices
- the piano is a loud/ soft instrument that allows us to play each note dynamically
- we can locate and name the 7 white notes

**In the upcoming video I am going to pick 5 notes, from the 7 white notes. I am going show you how using just the musical tools you have already learned is enough to play some music...**

**In the video I will introduce two more musical tools, motive and sequence.**

**Remember: we are going to start building slowly; introducing you to the musical tools used to create all genres of music. Be patient and enjoy the process. To begin use just one or two fingers to find and play the notes. This is an effective method. Later in the course we will teach you other fingering methods. As you try all the exercises in this course make sure you practice with both hands. All of your fingers are equally important in playing the piano and need to be equally exercised.**

**See [video](#)**

***Note:** Add motive and sequence to your list of musical tools*

*In the video I played in what's called **free time**. We will cover playing in time, or to a metronome, later in the course. For now, feel free to experiment with free time and playing along with the provided drum tracks. Notice how different drum rhythms will make you play the same notes differently.*

*We recommend that every time you sit down at the piano, you warm up by using each musical tool. Don't underestimate the power of experimentation. For centuries, master pianists have used this method to explore musical ideas instead of just playing by rote.*

*It's what we know and how we apply it that allow us to create great music!*

**Optional video: Here is a song to learn that only uses five notes.**

**See [video](#)**

## *The Piano as a Rhythmic Instrument*

In the last video you played music using your knowledge of locating any white note on the piano. **As you played your notes, you naturally played those notes *rhythmically*.**

**The motives and sequences that I played in the video were rhythmic ideas!**

**Rhythm** is the arrangement of musical sounds, according to duration and periodic stress.

We all have a deep connection to rhythm. Nature is filled with rhythms, from our beating hearts to pounding waves. We cannot escape rhythm.

**Certain rhythms make us dance while other rhythms calm us.**

**Think about the answers to these questions:**

- How does a rock-and-roll drum beat make you feel?
- What do you feel when you listen to meditative or spa music?

**When you hit a drum, the hits create a rhythm.**

It's the same when you hit a piano key – the hits create a rhythm.

**Therefore, the piano is a rhythmic instrument.** This topic is expansive and we will continue to explore it throughout our courses.

**As we will learn in the *HISTORY* section,** certain musical genres are defined by their rhythms. The rhythms in salsa music are completely different than the rhythms in country music.

We connect to rhythms and we respond to them. Think about soldiers marching and how the rhythms keep them connected, or the drumming on a crew boat meant to keep the rowers in sync.

**Rhythms have the power to unite us and move us in a variety of ways.**

**Experiment on your piano and let out your natural rhythms!**

**Exercise:**

1. Play along to a drum track. Using two fingers on any two notes try to play along to the rhythm. [Drum tracks](#)
2. Turn on the radio and mimic any rhythm you hear on your piano *[use only two fingers and two notes. Use one finger from your left hand and one from your right. Pick any two notes and think of each of the two notes as a drum]*
3. Think about the rhythms in any language. Explore the rhythms of different words. Using one finger on one note, tap along to each syllable of the word's below:

Pea nut but ter

Hot fudge sun dae

Bub ble gum

**Try this:** create two motives that have different rhythms, then alternate between motive 1 and motive 2.



## Lesson Two: the basics

### Lesson Overview

- A brief review of lesson 1
- Define musical **intervals**
- Learn what we can build with intervals
- Learn how to **construct musical scales**
- **Take the fear out of learning any scale**
- Discuss how scales can create moods/feelings

**We'll finish the lesson by applying these new tools to build more music!**

**Brief Review:** with introduction to **INTERVALS**

There are **88 keys** on the standard piano

You hit a **key** to make a sound

This sound is called a **note**

And there are **12 musical notes**

The **12 musical notes** repeat up the keyboard to give us a **range of voices**

**REMEMBER:** the left keys are deep bass and the right keys are the chipmunks

**The piano is a rhythmic instrument!**

**You can create musical ideas [motives] and then sequence them.**

**It is not the amount of knowledge that makes a great musician, but how the musician uses what they know!**

**Every tool is like a building block that can be varied in multiple ways.**

**For centuries, master pianists have used experimentation as a method to explore musical ideas.**

This is a sample of the program. The full course has 112 pages of text and diagrams, including over 30 videos.

Below is the history section with musical examples.

## History

Welcome to the history section of this **OneWorld** Studio program. This section is technically optional, and gives you information on the beginning and evolution of music through the ages. However, we believe that the understanding of the WHENs and HOWs of musical creation and the understanding of its sociocultural underpinnings and evolution will give you a more well-rounded knowledge of creation and play and help you figure out what you want to play.

**The Greek** culture was humanistic; its people leaned away from the church and towards the belief in man's humanity as its own advancement. The music of the early Greeks was also humanistic. **Aristotle believed that a person who listens to the wrong kind of music will grow up wrong, but that the right kind of music would help educate the young.** Music was not just sounds for pointless pleasure but had educational and celebratory intent, and could actually affect your character. Music, to the Greeks, had expressive force and could change hearts and improve human nature. Music was about the pursuit of truth and beauty. The Greeks held to the doctrine of Ethos which ascribed to music healing and educative powers. During performance, the early Greeks combined words, music, and movement, reciting poetry over melody as the audience danced. This was a shared and moving experience. Some scholars consider this combination of words and music the first opera.

**The Greeks had a special scale for every occasion and you have actually learned some of these ancient modes:**

Ionian (this is the Major scale)

Dorian

Phrygian

Lydian

Mixolydian

Aeolian (this is the Natural Minor scale)

Locrian

An example of Greek song is the **skolion**, a banquet song or drinking song. These heroic tales often reminded the listener to enjoy life.

[Here](#) is an example of a skolion called **Seikilos Epitaph** or **Song of Seikilos**



*Ὅσον ζῆς φαίνου,*  
*Hoson zēs phainou,*  
While you live, shine,

*μηδὲν ὄλωσ σὺ λυποῦ·*  
*mēden holōs sy lyrou;*  
have no grief at all;

*πρὸς ὀλίγον ἐστὶ τὸ ζῆν,*  
*pros oligon esti to zēn,*  
life exists only for a short while,

*τὸ τέλος ὁ χρόνος ἀπαιτεῖ.*  
*to telos ho chronos apaitēi.*  
and time demands its toll.

**By 146 BCE, Greece had become a Roman state.** The powerful empire adopted most of the Greek ideals of music and continued their practice. In a last ditch effort to unite their empire, the Romans adopted Christianity as their official religion but the once powerful empire still fell in 450 BCE. All collected knowledge, including that musical history, was lost.

**We now enter the Middle Ages, or Medieval time, 600-1000 CE known as the Dark Ages, and 1000-1400 CE as the High Middle Ages.**

Education and technology, as it was, remained lost; these were truly dark times. As the world was falling apart, the Church stepped forward to preserve what culture was left.

Music changed with the time. The Greek and Roman ideal of humanistic music was replaced. Through the Church, music came to serve one purpose: to remind listeners of the divine beauty of God. Music was played to serve the Church and teach Christian thought. If music extolled the virtues of man it was rejected as self-centered.

Music was no longer celebratory; the dancing and festivals of Ancient Rome were denounced as pagan. All instruments were disallowed. The voice was the sole sound of Christian music and the **plainchant** its vehicle. There was **no beat** so there was nothing to dance to. [Highly meditative music]

The music was **monophonic**. **Dissonance** was frowned upon and the **tri-tone** was forbidden as the devil's interval. This was the age of theocracy and liturgical music.

**Melodic lines were smooth and the melodic harmonies were adjunct, not disjunct;** the melody notes were close to one another. A musician would not make a melodic leap from C up to a B because the distance between the notes was too great, and so jarring. Instead, they moved short distances on the scale, **making music of non-tension; calm and meditative.** This was purposeful, in order to create long meditative moods in which the listeners could contemplate God. The Church endeavored to use this liturgical music to re-civilize its troubled constituents.

Listen again to [Kyrie Eleison](#)

#### Kyrie Eleison



“Lord, have mercy”

**You should be recognizing now that music is a product of its time, whether referential or reactive.**

The music of the Dark Ages was used by the Church essentially as means for social reform, and so was serene and conducive to prayer. As it moves into the High Middle Ages, Europe starts to regain its knowledge and strength. Farming techniques were

rediscovered and food production grew. Horses were brought in to take over for the slower ox. Innovations in crop rotation and irrigation lead to more crops and more food, which lead to population growth, which lead to the need for space. Education improved, and cities are built. And music began to evolve and depart from liturgy and service of the Church. Secular music for non-religious use rose in popularity. **Pulse returned** to music; there was once again a danceable beat. There were **new rhythmic systems**. Keyboard instruments were born!

The monophonic plainchant morphed into a **polyphony**. The Church was still a presence in those times so the new composers did not completely stray from the plainchant but **embellished it with multiple voices**.

**Music notation** was developed out of necessity. Composers were, for the first time, signing and taking ownership of their work; the self was returning to music.

This departure from purely liturgical music was called **Organum**. It peaked between **1150 and 1300 CE** with its **star composer, Leonin, heard [here](#)**.

### **Brief review:**

Greece had a humanistic view towards music; life was celebrated through song, dance, and poems via instruments and the human voice.

Greece became a Roman state and Rome made Christianity its official religion but then fell to German invasion. The Pope's power increased and the age of theocracy began with its aim to save humanity from ruin.

**The focus of music shifted from humanism and dancing and singing, to meditative music that reminds the listener of God's divinity.** The age of liturgical music lasted for about 600 years.

**By 1400CE, the church lost its absolute power.** Theocracy weakened and secular rulers rose.

## **We enter the Renaissance!**

**Renaissance** means rebirth; a rebirth of man, the rebirth of humanism.

The focus returned to the exploration and celebration of humanity. Humanity's urge for expression, which had been stifled for centuries by the church, was released with wild abandon. All of the arts began to flourish.

This was an age of exploration, both in the world and within the self.

The Renaissance musicians were trying to recapture the musical ideals of the ancient Greeks and recreate the music of this early history. They grabbed on to the idea of Ethos but realized that the music they were making did not have the restorative and educative affects that they expected; it was too disordered and complex. The Renaissance musicians realized their music needed order in its complexity and created **homophony and harmony**. The rules of harmony allowed for greater control of the interaction of voices. Some composers of the time were [Tallis](#) and [Monteverdi](#).

**From 1590-1604**, musicians and intellectuals gathered to discuss and experiment with music drama and **Opera is born**.

**In the early 1600s, the focus on vocal music began to shift back to instrumental music, and the Baroque period (1600-1750CE) began.**

You will recognize the foremost composers of the time, **Bach and Handel**.

Their music is **polyphonic**. With the creation of harmony and its inherent control, these great composers (Bach, in particular) were able to construct **elaborate multi-voiced compositions**. [**Counterpoint**]

The Church, still weak, continued its mission to educate Europe in the word of God. Recognizing the music's complexity, composers' control over harmony and their ability to create music with multiple voices as divine, the Church employed composers to create their music in the service of God.

The composers were utilizing the technique of **Counterpoint** to create elaborate compositions. Counterpoint, or contrapuntal, means "note against note," and features musicians using their right and left hands concurrently to play separate and distinct melodies. This music was created on the harpsichord and the clavichord. The piano was not yet invented.

**Music was motoric**, paying strict attention to time, so that multiple voices could successfully interact.

**Some popular musical forms were binary, ternary, fugues and inventions.**

Here are [two](#) by [Bach](#)

**Next comes the [classical](#) period from 1750-1825CE.**

The musical style of this period mimicked the Greek ideas of Classical art; a celebration of form, and understated and uncluttered symmetry. **The melodies echoed the human voice**. Classical music was geared towards the middle class. The members of this stratum were hard-working and desired easy melodies to which they could relax after a long day.

**Classical music** had a steady beat and pulse, with gradual volume change.

**Balance**, order, and Symmetry were its number one concerns.

**Some popular musical forms** were the sonata, sonatina, minuet and trio, and theme and variation.

**Music was decorated** with trills, and crescendo and de-crescendo were the dynamics of choice.

**Chords were sometimes played in block form but Alberti base was also popular.**

**The composers** Hayden and [Mozart](#) composed for this audience.

Classical music was essentially a decorative art; pretty and something you kept on in the background to relax. As Europe began to buckle under royal rule and moved towards revolution, [Beethoven](#) moved away from Classical and harnessed music's power to express the turmoil of the time. **He pushed against the set forms of Classical restraint and explored the expressive possibilities of music, so that the expressive content became the form.**

**Romantic music was born of the French Revolution.** The years between **1820 and 1900** were a time of revolution not only against the monarchy but also against the structure and formality of earlier Classical periods. Music became personal and the artist inserted himself and his feelings into his compositions. The music was emotional, adventurous and passionate, and often "Dolce," or sweet and gentle.

A lot of Classical music sounded similar though it was created by different composers because the restraining forms denied true expression of the creator's self. The expressive qualities of Romantic music allowed the individual composers' voice and personality to shine through. Listeners were able to discriminate the music of different composers and could, through their compositions, get some sense of their lives and histories. This movement, within Romantic music, was known as Nationalism.

The most recognizable composer of this era is [Fredrich Chopin](#).

**Some contemporaries are Mendelsohn, Liszt, Verdi and Schumann.**

**In roughly 1880 began a shift towards Modernism**, a genre of revolt against the emotions and drama of the Romantic period. The world was growing and evolving rapidly and music was moving right along with it, so Modernism is a large umbrella under which several musical movements fall.

## **IMPRESSIONISM 1880-1900**

Moving away from expression of emotion towards exploring one's atmosphere, this genre generally favored short forms and uncommon scales, as its creators experimented with sound. This movement took place predominantly in France, and its famous composers include [Debussy](#), [Ravel](#) and [Satie](#).

## **GERMAN EXPRESSIONISM 1860-1911**

With the introduction of Freud's ideas of id, ego, and superego, the German Expressionists turned inward to explore their own psyches musically. [Mahler](#) is a prime example of a composer of this movement.

In America during the early 1900s, music was also taking new form. New sounds were reflective of the rapid advancements of society.

There were mass media and appliances, plastics and trains. Freud introduced his theories on the human psyche. Quantum theory and special theory challenged religious belief. The world was moving faster and faster and music acted as a mirror. Music was reflection of its time.

## **BLUES:**

**In the early 1900s, blues music** developed from African-American spirituals, the often religious working songs of slaves. Blues music, with its distinct scale and rhythms, was not meant to concentrate on the negativity of life, but as a coping mechanism. The true undertone of the blues is not sadness, but hope!

Here are [Charlie Butler](#) and [Blind Lemon Jefferson](#)

## **Jazz, 1900-present**

This style grew directly from the blues. Like the blues, jazz often used a swing beat, which is an uneven rhythm and syncopation. Syncopation is a rhythm that accents an off-beat, the notes between the main beat.

This style was based on improvisation. While composers throughout music history have improvised, creating music on the spot, in no genre did musicians accomplish this feat so well as in jazz.

Jazz musicians use harmony in a different way – they extend chords farther than musicians in other genre. Three note triads are used very infrequently; you'll often hear quartal and quintal chords. To create richer and more complex sounds, jazz improvisers play in multiple scales and use multiple key centers.

### **They made use of the musical tools in very creative ways!**

Jazz itself evolved quickly. There are many sub-genres and we will explore them in later classes. For now, check out these guys:

[Ellington](#)

[Coltrane](#)

[Thelonius Monk](#)

[Chick Corea](#)

[Bill Evans](#)

### **ROCK/POP, 1950-PRESENT**

**Led Zeppelin, Jimi Hendrix, the Beatles, Cream, the Who, Pearl Jam, Nirvana, the Stones, Foo Fighters... the list goes on and on**

For now we will group all these bands together with the understanding that this genre was based on youth rebellion.

These songs are short, powerful and range from slow ballads to neck breaking tunes. Loud or soft, the message of rock is clear.

Here are two rock and roll songs that rely heavily on keyboard: [Your Time is Gonna Come](#) by Led Zeppelin and [Angry Young Man](#) by Billy Joel.

**The purpose of this course was to:**

- Introduce you to a majority of the musical tools used throughout history, and give a brief introduction to western musical history with musical examples of the genres.
- To show and illustrate how the musical genres are created with a similar set of musical tools.
- How a similar set of musical tools can be used in variation to create multiple styles of music
- To use your newfound musical knowledge to appreciate great music

**Now it's up to you to pick your passion and continue your studies!**

**Thank you,**

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