

# Music and Sound in the 20<sup>th</sup> Century

## 2<sup>nd</sup> Meeting

### Development of Traditional Harmony

Note: these notes cover both the second and third meetings, due to technical and scheduling setbacks.

#### REVIEW FROM FIRST MEETING:

- earliest music, from 5<sup>th</sup> century BCE, a **MODAL** music developed around the thinking of the philosopher/mathematician Pythagoras
- endures through the Christian middle ages (with appropriate changes in symbolism) into the early years of the European Renaissance (roughly fifteenth/sixteenth centuries, depending on the country and the issues under consideration)
  - style: monophonic (middle ages, plain chant/Gregorian chant)

Renaissance:

- polyphonic (many voices simultaneously)
- then homophonic—a distinct melodic voice accompanied by instruments that provide harmonic support
  - a harmonic system—functional harmony (also termed tonic-dominant, “home-key” harmony)
- this system clearly in place by the 1600 introduction of opera, in the process of development in the music of Thomas Tallis and William Byrd, consolidated and part of essential musical structure and organization by the time of Vivaldi

#### WHAT SHOULD YOU LEARN FROM THIS MATERIAL?

- **OUT OF THE MODAL CONCEPT THAT DOMINATED MUSICAL THINKING FOR SOME TWO THOUSAND YEARS, EARLY IN THE RENAISSANCE, MUSIC DEVELOPS A SET OF SYSTEMATIZED HARMONIC PROCEDURES**
- **THIS SYSTEM IS REFERRED TO AS “FUNCTIONAL HARMONY,” OR A “TONIC-DOMINANT” SYSTEM, OR A “HOME KEY” SYSTEM**
- **ALONG WITH THIS HARMONIC SYSTEM COME A CLEARLY STATED METER AND CLEAR FORMAL DIVISIONS (PROCEDURES FOR ORGANIZING MELODIC MATERIAL); THE HARMONIC SYSTEM REINFORCES AND IS REINFORCED BY THESE MELODIC AND RHYTHMIC PRACTICES**
- **THE NEW KIND OF MUSICAL PARADIGM IS ANALOGOUS TO PERSPECTIVE IN THE VISUAL ARTS, AND, LATE IN THE BAROQUE PERIOD (1687) FORMULATION OF A THE SYSTEMATIC NATURE OF THE COSMOS—THE “CLOCKWORK UNIVERSE”**

## - **THE VARIOUS STYLISTIC CHANGES IN THE ARTS OCCUR WITHIN THIS LARGER PARADIGM OF RATIONALITY AND ORDER**

- The new paradigm is perhaps the major aspect of the essence of music for all the major composers for the next several centuries—Bach, Haydn, Mozart, Handel, opera composers everywhere
  - depends on the “tempered” scale, which is the scale you find on any piano, the scales you learn as a beginner on any musical instrument capable of playing scales—you might progress to other kinds of scales, but the tempered scale and functional harmony are the basis for departures
  - all developments in composition take place within this framework of harmonic thinking, until we get to Debussy in the late 19<sup>th</sup> century

basic building block: the **“circle of fifths,”** where any triad can be treated as the dominant leading to a new tonic; for example, you can go from the triad built on the note C, to the triad built on the note F (C was the fifth note of an F scale) to the triad built on the note B flat (F is the fifth note in the Bflat scale), and so on.

Performance example: **Vivaldi** (17<sup>th</sup> century) “Spring” from *The Four Seasons* :

- here is a fully-formed, readily discernible traditional harmonic system with conspicuous tempo, meter, tonality
- important: no vocal text for the music to carry—instead, the “text” is just the idea of the various seasons, which are represented by the music alone—an early example of what will later come to be called “program music,” where composers write music that has a deliberate narrative intention (tells a story—like, “In the Hall of the Mountain King” (Grieg—19<sup>th</sup> century); in Vivaldi’s *Four Seasons*, each season is depicted for its characteristic mood, with appropriate tempos, harmony, melody lines. In “Summer,” for example, Vivaldi describes musically a summer storm, as well as a harvest dance
- in this secular era, music has come into its own as a medium for artistic expression, tied to the real world, not the spiritual world

- leads to expansion of the musical resources—no longer just one or two instruments accompanying the vocal text, but larger ensembles of players
- this is a consequence of the development of opera, in which the verbal content required musical accompaniment, but gradually the accompaniment ensemble expanded, then began performing music separate from the actual opera (e.g., the opening piece, transitional material, etc.)
- observations about the piece (apply to many other such pieces): the **melody** is simple and repeated; the **chord progression** is simple, consisting almost entirely of tonic and dominant, until a “B” section, where the chords branch out; the **rhythm** is clear, whether it is a double meter or triple meter; once established, **tempo** does not change (in the 19<sup>th</sup> century, it became possible to vary the tempo within a movement, slowing or moving ahead as the emotional content called for)—in fact, Bach’s music could be described as being like a dynamo—you switch it on, and it goes and goes in the same way it started until it reaches its anticipated conclusion
- composers use harmony and melodic repetition to signal the listener—here’s the end, there’s a big climax coming; Beethoven is marvelous at this; he’s actually a skilled “tease” at making feints toward the conclusion and finally blowing forward like horses heading for the stable

Performance example: Bach: *Brandenburg Concertos*

- the circle of fifths is Bach’s bread and butter—he exploits it endlessly and brilliantly, and in much more complex ways than Vivaldi does

(note: all observations are generally true, though we will certainly be able to find passages in Bach where the chord progressions are simpler, and passages in Vivaldi where progressions are more complex)

That said, **Vivaldi** has simple melody, chords that last a relatively long time before he changes them (4 to 8 bars);

Bach cycles through circle-of-fifth type changes endlessly, changing keys, modulating one way and another; a very “restless” music, constantly evolving—a brilliantly complex music

**Bach is regularly seen in conjunction with the “baroque” style in painting and sculpture, where there is restless movement, swirling compositions, not the balanced and poised composition, the fixed-state composition of classical works**

note: a composer is not obligated to work the circle of fifths in a rigid, locked-in way—the brilliance of the all the composers within this system is their ability to come up with surprising and often amazing jumps around the circle—but they will always bring their harmonic progress back to the home key via the circle

## **Symbolic implications of this harmonic system:**

- as in Pythagoras’ time, music can be a metaphor for inner states, also affect inner states
- example: in the final act of *King Lear*, when Lear awakes from a period of insanity, a character has music played to bring Lear awake; music in dance also represents order, stability
- music is reason/the soul made manifest
  
- rational, systematic, predictable, like the solar system (Newton’s description of the laws governing physical phenomena are formulated during this period, in 1687 in *Principia Mathematica*, the most famous scientific work perhaps of all time)
- laid out with the same kind of intentionality that perspective rendering is laid out in visual arts; puts harmonic progressions in systematic relationships to each other, as figures in a visual field are given systematic relationships by perspective lines
- unites composition with a mathematical dimension
- gives a new meaning to the idea that music represents rational order and harmony and can reflect or create emotional, psychological order

- gives music a new connection to the divine, since God is connected with pure "reason" (cf. Milton's *Paradise Lost*)
- in the largest sense, this harmonic system, like Newton's mathematical description of the physical world, is an assurance that God is in heaven, that humans are distinct from the animals, that God's intentions governed the creation and continuation of the universe, that the Bible describes the creation of the universe and its ultimate fate, that human societies are rationally ordered (with the traditional hierarchies from nobility down to peasantry), and that reality as we know it has been the same from the creation to the present day: people who transgress will go to hell and people who live decent, Godly lives will be rewarded in heaven. Amen.
  - These assumptions ruled the practice of life and gave it its ultimate sense of meaningfulness: threats to the order and stability of this system, which of course favored the rich and powerful and left the poor without any recourse had to be dealt with summarily; hence, the witchcraft trials and the inquisition of the 14<sup>th</sup> through 16<sup>th</sup> centuries
  - It is not an accident that from the 12<sup>th</sup> century or so on (which might be too early for the Renaissance as we know it, but uprisings across Europe begin during this period), we have a time of tremendous social upheaval and radical change. It may also not be too much to suggest that the Crusades are a way of taking attention off the social problems of the 12<sup>th</sup> and 13<sup>th</sup> centuries by getting people to war and by finding a common enemy to the western world (Islam). Certainly during this period of social stresses and strains, the witchcraft trials and heresy huntings heat up. The religious strains culminate in the Inquisition and the Protestant Reformation of the early 16<sup>th</sup> century.
  - Specifically: from a feudal society to one in which there is a growing economic middle class
  - -- going from a theocratically based society to one that is secular in its interests and priorities, especially in the following ways:
    - a. the conscious implementation of aesthetic and cultural values from the Greco-Roman world in place of the anti-secular values of medieval society (Augustine had said in the fourth century that no form of knowledge had value except that which led to salvation, hence the anti-worldly stance of the church and the punishment of any who would inquire into the processes of the physical world)

- b. the growth of cities as displaced feudal peasants seek new opportunities and wealth
- c. the development of methods of accounting that enable a powerful merchant class to arise, and thus the beginnings of capitalistic society, though the theories and critiques of capitalism are several centuries away (i.e., Marx)

**Thus, this is an extremely rich and complex transitional period, in which the political, philosophic, social, economic, and artistic systems we take for granted (or have by this time—the 21<sup>st</sup> century--rebelled against and rebelled against again) establish themselves as the new norms.**

**This is the historical/cultural environment in which functional harmony comes to dominate European compositional practice.**

(AS PERSPECTIVE DOMINATES THE VISUAL ARTS AND  
NEWTONIAN PHYSICS DOMINATES THE PHYSICAL SCIENCES)  
UNTIL THE 19<sup>TH</sup> CENTURY)

-- this period includes the Enlightenment, which is, philosophically, guided by “reason”

- representative visual artist: David, realistic rendition of reality
- representative writers: Voltaire (France); Hume and Locke (England, the “empirical” philosophers)
- an age of science, following Newton—a very systematized world—
- interestingly, this is also the age of “classical” music—Mozart, Handel, Haydn, et al

Performance example: **Haydn: Symphony #93**

- fully-formed orchestra—strings, woodwinds, trumpets, percussion
- discernible themes, repetition of melody, harmonic changes
- larger structures for full symphony—ready-made, pre-existent

-- musical forms that exist in and of themselves to keep musical information moving forward, give a sense of organization and structure—sonata form, theme and variations—these are ways of varying the musical information—they combine with harmonic structure and various other organizational patterns (e.g., repetition of short phrases) to help the audience process the music

- an entirely **diatonic** work—based on scales, triads—we had the term “scalar” with reference to the Greek music
- a non-disruptive music—affirmative of traditional values—and thus valued by its upscale and aristocratic patrons—does not depict or imply revolution, breakthrough, dissatisfaction with traditional forms; music can be composed within established paradigms; innovations can take place within those paradigms, like Shakespeare writing sonnets

[note: this is not to say that “reason” as the highest of human values was universally regarded without skepticism: Jonathan Swift’s *Gulliver’s Travels* savagely satirizes what might be called “the works of reason” in the form of scientists who carry on bizarre and inane experiments, and Swift’s protagonist, Gulliver, winds up, after his travels, back home in England, satisfied to live in a stable like a horse because he has just returned from the land of the Houyhnhms, where horses were the “rational” creatures and humans were filthy and nasty. Swift’s implication is that, while reason may be a noble value, humans do not represent it, and their claim to be the noblest of God’s creatures because of their rationality is spurious—horses are better.]

## **--WITH THE 19<sup>TH</sup> CENTURY, AND THE “ROMANTIC REVOLUTION,” COMPOSERS, LIKE ARTISTS IN OTHER AREAS, BEGIN SEEKING NEW ARTISTIC MEANS TO EXPRESS NEW IDEAS AND EMOTIONS**

**MOZART:** one can hear (in hindsight) hints of these changes in the complexity of Mozart

Performance example: last movement of **Mozart: 40<sup>th</sup> Symphony**  
--entirely within the harmonic tradition he inherits from the Ren-

aisance, but begins to exploit the possibilities for chromaticism within the system, to the point that here and there the harmonic “stability” begins to hint at instability

--that is, Mozart can move so quickly through dominant-tonic progressions and use the chromatically ascending/descending lines they offer that you seem to lose your footing momentarily

-- this possibility has been available to previous composers-- it's the same harmonic progression—but I'm not aware of any who exploit the chromatic lines to the extent that Mozart does in this piece

-- also goes through what seem like wild, adventurous key changes though again, completely within the logic of the system

**ROMANTIC PERIOD**—hinted at in Mozart's use of the system

**Beethoven:** The spirit of Beethoven dominates 19<sup>th</sup> century music, both symphonic and operatic. He is to music in the 19<sup>th</sup> century what Newton has been to science since the publication of *Principia Mathematica*. A great example of the movement into the Romantic era within the career of a single composer.

d. early symphonies sound like Mozart, but by the 9<sup>th</sup> *Symphony*, he has entered new territory in many ways

-- though harmonically, he is still well within the system-- Beethoven's adventure is in his innovative and extravagant rethinking of structure

-- Mozart, Haydn, Handel et al—movements in their symphonies have consisted of

-- relatively short movements—5 to 8 minutes

-- consistent mood, tempo, instrumental pallet within a movement

Beethoven, as represented by the expansive 4<sup>th</sup> Movement of the 9<sup>th</sup> *Symphony*, combines many forms (changes in tempo, changes in

instrumental pallet, expansion of orchestra in size as well; adds choral element) within one very long movement with several distinct sections

This movement a great break from past structural practice while beautifully and brilliantly continuing to exploit the harmonic possibilities of traditional practices; could be that he realized the expanded structural approach required the continuity of a traditional harmonic approach (or, he simply accepted it as the necessary approach to composition at the time)

- variations in tempo, wild harmonic directions, impact of chord progressions can be revelatory—that is, he'll go into a key that you just don't expect to be the next harmonic move, yet it will seem wonderfully logical, or, like a sudden breakthrough into some new and not previously imagined musical realm
- exploits the ambiguity of the **diminished chord** (again, other composers have had the diminished chord at their disposal—sometimes the innovation is in one's willingness to linger over a device and bring it to a kind of prominence it hasn't had before, or reveal and exploit an inherent harmonic ambiguity that hasn't been particularly apparent before)
- major breaks within the movement; one “style” will end, another style will begin—for example, after the first theme is stated (and repeated in a **theme and variations form**), the music stops, returns to the dissonance of the introduction, stops again, and the vocal quartet section begins
- metrically, Beethoven seems to have planned out the movement so that the meter doubles, then triples, then quadruples while remaining within the same tempo range; one way (in addition to melodic continuity) that he unifies the disparate sections of the movement
- begins out of tempo (unlike previous composers—e.g. Bach, Mozart, Haydn et al)—takes awhile for the tempo to assert itself—hints at other previous movements; the traditional practice has been, as in Mozart's 40<sup>th</sup> Symphony, to establish the tempo and then keep it constant throughout the movement (though Haydn is not strictly committed to that procedure)

PERFORMANCE EXAMPLE: 4<sup>th</sup> Movement, Beethoven's *Ninth Symphony*—the symphony that is most in the minds of every composer of the 19<sup>th</sup> century until Debussy. Everyone aspires to Beethoven's level of intensity and exaltation. OR, Beethoven is the paradigm to depart from.

What happens after Beethoven? Exhaustion? Despair?

On the one hand, symphonic writing continues in the works of Brahms, Mendelsohn, Schubert, Mahler—each exploring symphonic form in his own way, each tending to extend harmonic practice as well

But composers also depart from the symphony as a venue for composition—move to “program music”—that is, music illustrating some extra-musical theme, as with the folk-lore, legendary subject of Grieg's *Peer Gynt Suite*, or the midnight, graveyard scene of Saint-Saens' *Danse Macabre*, or the description of a river in *The Moldau*, which also represents another tendency in 19<sup>th</sup> century music: nationalism, or the incorporation of themes, rhythms, motifs from folk sources—e.g., Lithuanian—as an expression of nationalistic pride and the recognition that one's own country is part of one's essence. The composer can't become “German.”

Inevitably, such extra-musical or non-traditional types of material can allow the composer a break from the formal restrictions of symphonic writing as well as the emotional restrictions—the door is open to much greater harmonic experimentation

- that is, instead of being confined to standard symphonic form, composers are guided by the development of a narrative, describing musically an external, not purely musical, reality
- and/or, they can allow the music to develop according to its own individual needs—a kind of “organic” development

Interestingly, provocatively, this is a paradigm also related to intellectual/emotional paradigms of the period: Darwin's *Origin of Species* is published in mid-century and provides a central metaphor for thinking about how art and literature, as well as music, function—they “grow,” they “evolve”—this is a language that hasn't been used to describe reality before; Darwin responsible for implanting a major paradigm change in Western thinking

## **PERFORMANCE EXAMPLE: Debussy: *Nuages, Sirenes, La Mer***

-- (note: this is not a nationalistic kind of music—though it is distinctly French rather than German; nationalistic implies the use of indigenous themes and rhythms in a symphonic context. This is Debussy’s own personal work.)

- titles of these pieces reflect an approach to composition that involves the not-strictly-formed, the changing, the unstable—unlike the kind of “rational” form and harmonic practice of the classical writers
- that is, clouds, the ocean, the alluring sirens (from *The Odyssey*—the women who lure men to their deaths with their seductive song)—these are things that don’t have a fixed form, are always in motion, in a state of ceaseless change (at least clouds and the ocean), or draw the rational mind away from its orderly, rational intentions and discipline (the sirens)
- to accomplish this effect, Debussy resorts to tritone harmony—if you go up a tritone (or whole tone) scale, you are actually playing the beginnings of scales in two different keys—for example, C and G flat. The result, relative to more traditional practice, is to create a sense of ambiguity. As the composer moves within the whole-tone/tri-tone harmonies and melodies, it is no longer clear where the tonal center is, or whether there is one in the old sense. It isn’t that Debussy never uses tonal sounding chords, it’s that the balance has shifted away from them towards more ambiguous, shifting and changing harmonies—you don’t expect a return to a home key because it’s not clear where it might be—this is like clouds, or the ocean, which are always in motion, never fixed, cover vast expanses without having a determinable “center”;
- also uses the pentatonic scale rather than the traditional, tempered scale
- for this reason Debussy is described as an “impressionist” composer: he alters the harmonic system to bypass the strict adherence to tonic/dominant progressions—uses tritone—blurs over the “tonal center,” makes it indeterminate, “unfocussed,” like the works of, say, Monet, the painter for

whom the term “impressionist” was coined (by critics who didn’t like him, by the way)

- the painters become “impressionist” by suppressing the visual cues for rational perspective—no more converging parallels, no more tiles on the floor, no more clear indicators of foreground/background (though obviously many paintings still depict objects on different spatial planes)
- Debussy—to repeat--drops the musical cues for harmonic “perspective” and “rationality” in favor of a new set of musical cues that leave the listener without a sense of the predictable
- Debussy reflects also the beginning of an “organic” kind of development—i.e., no pre-determined form; music develops apparently according to its own inner principles: it evolves, grows, trails off—no climactic endings; instead of setting a tempo at the beginning, the musical material sneaks in, approaches, withdraws

With Debussy (and Wagner, whom we have not listened to, but who must be mentioned), we are ready to move into the twentieth century and full-blown modernism.

As Picasso found Cezanne a point of departure; Stravinsky found Debussy a point of departure, though his teacher, Rimsky-Korsakov, warned him against listening to Debussy on the grounds that Debussy was the kind of composer, who, if you listened to him too much, you might start to like him.

The other important point we recognize in everything that’s preceded: a harmonic language has become embedded in European/American culture that will be the foundation for blues and then jazz. Blues adapts the same Pythagorean harmonic structure that formed the basis for European music from the Renaissance on, to a realm of human experience—slavery--below the radar of the American establishment. Blues and its offshoot, jazz, slowly make their way into American consciousness, both captivating and threatening, but finally becoming the language of American popular music.

Our next class will be an introduction to the American social milieu in which blues and jazz arise.

