



Young People's Chorus of New York City™

Broadcast Listening Guide

Michael Harrison

"Hijaz"

BACKGROUND:

The Young People's Chorus of New York City launched Radio Radiance™, a collaborative partnership with WNYC New York Public Radio and American Public Media (APM), in 2008. Radio Radiance™ turns YPC's award-winning Transient Glory® Commissioning Series three-dimensional, taking it from stage to radio to cyberspace. Transient Glory® was created in 2000 to commission the country's most eminent composers to write new music and expand the traditional youth chorus repertoire. Radio Radiance™ takes this series and expands it with 21st century technology. Its mission is to develop new audiences for new music by commissioning and performing choral works written or performed specifically for radio, digital media, and the web. This listening guide was created to enrich the experience of listening and heighten one's appreciation of the music.

Radio Radiance™ began as a regional program in New York City, broadcasting performances locally on WNYC New York Public Radio. Podcasts created from these performances and composer interviews were then broadcasted nationally on APM's "Performance Today" in over 90 cities across the country. It is now a national program implemented by other choirs, whose performances are broadcasted by many local stations, with listening guides being utilized in several public schools nationwide.

For more information, please visit www.ypc.org





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National Standards for Music and the Blueprints for Teaching and Learning in the Arts

This listening guide for teachers provides lessons that meet National Standards for Music Education and address all five strands of the Blueprint for Teaching and Learning in the Arts in New York City. These guides are available online at YPC's website, and are accompanied by podcasts that feature the music and in-depth interviews with each composer by WNYC host John Schaefer. We hope that by connecting the music to as many subjects as possible, you will open doors and inspire young students to aim high and dream big, just as we try to do at YPC.

By using this lesson plan, your students will be utilizing the national standards for music education:

1. Singing, alone and with others, a varied repertoire of music.
6. Listening to, analyzing, and describing music
8. Understanding relationships between music, other arts and disciplines outside the arts
9. Understanding music in relation to history and culture. and enjoy music making with an enriched and challenging repertoire.

The Blueprint is a guide for arts educators in New York City public schools that defines five strands of learning: making music; music literacy; making connections; cultural resources; and careers and lifelong learning. We encourage teachers to pick up the fifth strand and discuss with your students how these lessons may inspire them to either pursue music further, or perhaps become poets or astrophysicists.

Each lesson has several sections. The first two provide teachers rudimentary background information on the composer and the music. The "listening to" section offers points of entry to enable teachers to help their students understand and appreciate the music. "Making connections" connects the music to other disciplines, and "Activities" will get students more engaged and appreciate the richness of this experience. Every teacher can modify the lesson according to his or her students' background and abilities, and can add further activities as time and inspiration allow.





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Hijaz

Michael Harrison

Composer/pianist Michael Harrison has been called “an American Maverick” by the composer Philip Glass. With an expertise in Indian ragas, rhythmic cycles, and an innate gift for melodic composition, he has developed one of the most distinctive musical styles of our time. On the path to discovering his voice as a composer, Mr. Harrison began his profession as an improvising keyboardist and was a protégé of La Monte Young and a disciple of the late Pandit Pran Nath, the renowned Indian classical voice master who awakened Harrison’s ears to the beauty of just intonation. Through his adaptation of Pythagorean principles of harmonic resonance to create new tunings and scales, Mr. Harrison composed *Revelation: Music in Pure Intonation*, a groundbreaking composition that showcases one of his specialized tunings for conventional piano utilizing “celestial commas,” or the microscopic intervals between two slightly different versions of the same note.

“Hijaz”

Hijaz is one of the oldest and most prevalent modes used in the Middle East and North Africa, with a reach spanning from Andalusia to India. It has even been used in seminal jazz recordings of Miles Davis (*Sketches of Spain*) and Chick Corea (*Spain*). The hijaz mode uses the Phrygian dominant scale. It is constructed by raising the third of the Phrygian mode and is the fifth mode of the harmonic minor scale, the fifth being the dominant. It has the word “dominant” in its name because like the dominant seventh chord it has a major 3rd note and a flattened 7th note. It is often known as a Spanish Phrygian scale or Spanish gypsy scale, and is commonly used in flamenco music. It is also known as Ahava Rabbah or Freygish when used in Hebrew prayers and Klezmer music (earning it the additional title of the Jewish scale), or as the Hijaz maqam when used in Turkish or Arabic music.

In this lesson, students will:

- Learn the basic difference between Western tuning and “just intonation”
- Connect the music with history and geography
- Discuss the relationship of music to mathematics





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Listening to *Hijaz*

Michael Harrison says that his intention while composing *Hijaz* was to invoke a sense of pilgrimage, either to a wondrous, natural or holy place, or metaphorically to a sacred place within us. On this imaginary journey the chorus, as a unified whole, represents the soul of the journeyer. The melismatic (singing one syllable or sound over many notes in succession) melodies are meant to give a sense of the searing sun and wind amongst the desert and mountainous landscapes. The pulsing rhythms trace our footsteps, and those of our camels or horses, as we make our way on the path of self-discovery. The text is comprised of vowels, South Indian rhythmic and tabla syllables, and a universal prayer that Harrison composed for the work.

The music is sung in both the 12-note Western scale (which uses chromatic harmony) and the ancient tuning system known as "just intonation," or pure tuning. Just intonation, says Harrison, goes really well with the voice. Just intonation is the basis for the music of ancient Greece, as well as many other cultures, including those of India, Persia, China, and Japan. It is also vital to a cappella music of the West, from Gregorian chant and renaissance polyphony, to "barbershop" harmonies. In just intonation, certain harmonies will sound more in tune than we are used to in traditional tuning, but other combinations of notes will sound jarring. It works well with "modal" music, which is based on a particular scale. It doesn't have to be the Western scale—it can be Middle Eastern or Indian. This piece also includes parts for cello, percussion, and piano. There is a strong rhythmic component floating throughout the piece, which is done by the percussionist and four different vocal rhythm parts. The chorus, therefore, is divided into Soprano 1,

Soprano 2, Alto 1, Alto 2, and also as Vocal Rhythm 1, 2, 3, and 4. There are times when the groups are just doing vocal rhythm, or when they are just singing, or doing both. The piece ends with these lyrics written by Harrison, a universal prayer which appeals to the oneness of all people:

*All the Masters, Saints and Prophets,
give me guidance in my life
and teach me harmony and music.*

We are one race.

We are one voice.

*Touch my feet to Mother Earth
and lift my spirit to the Heavens.*

*We are one voice in eternal love,
In eternal love.*

We are one voice.

Lift my spirit to the Heavens.

One voice in eternal love.



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History and Geography

Hijaz can take the listener to many exciting and unusual places and cultures. The piece uses South Indian rhythmic syllables and tabla rhythms. A tabla is a pair of drums. It consists of a small right hand drum called dayan and a larger metal one called bayan. The construction of a tabla creates its bell-like timbre, and the drums are played using a technique that involves extensive use of the fingers and palms in various ways that create a variety of different sounds.

The music of India sounds quite exotic to most Western audiences. Two major reasons for this are the differences between the two traditions in tuning and scales. Indian Classical Music refers to two distinct but related traditions. The Northern Indian tradition is called the Hindustani tradition. The Southern Indian tradition is called Carnatic (also spelled Karnatak or Karnatik).

The music of Western Asia and North Africa spans across a vast region, from Morocco to Afghanistan, and its influences can be felt even further afield. Middle Eastern music influenced (and has been influenced by) the music of Greece and India, as well as Central Asia, Spain, Southern Italy, the Caucasus and the Balkans. The various nations of the region include the Arabic-speaking countries of the Middle East and North Africa, including Iraq, Iran, and Turkey. This musical heritage can also be found in traditional Assyrian music, various Jewish traditions, Kurdish music, music of the Berbers of North Africa, and Coptic Christians in Egypt.

Throughout the region, religion has been a common factor in uniting peoples of different languages, cultures and nations. The predominance of Islam allowed a great deal of Arabic influence to spread through the region rapidly from the 7th century onward. The Arabic scale is strongly melodic, based around various modes (known as makam in Turkish music). This modal system has filtered down into folk, liturgical and even popular music, with influence from the West. Unlike much western music, Arabic music includes quarter tones halfway between notes, often through the use of stringed instruments (like the oud) or the human voice. Middle Eastern and North African music also include very complex rhythmic structures.

As you can see, we have covered a lot of ground just tracing the history and influence of hijaz and the Phrygian dominant scale. You can also hear it in Klezmer, a musical tradition of the Ashkenazic Jews of Eastern Europe, which consists largely of dance tunes and instrumental display pieces for weddings and other celebrations. You can also hear it in flamenco, the music and dance which originated in the southern Spanish region of Andalusia in the 18th century. Flamenco is said to have begun in the third century BC, and was created out of the cultures of Sephardic Jews, Christians, Moors and Gypsies—who came to Spain all the way from India! Do you see how we have come full circle?





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What is Barbershop vocal Harmony?

Barbershop harmony is a style of a cappella, or unaccompanied vocal music, using four-part chords for every melody note. Each of the four parts has its own role: generally, the lead sings the melody, the tenor harmonizes above the melody, the bass sings the lowest harmonizing notes, and the baritone completes the chord, usually below the lead. Barbershop music was first associated with African Americans. Several well-known African American gospel quartets were founded in neighborhood barber shops. Perhaps the most famous were the Mills Brothers, who were primarily known as jazz and pop artists and usually performed with instrumental accompaniment. Barbershop harmonies can be heard in a cappella music of African American Christian churches in the United States. Today, singing a cappella music in the barbershop style is a hobby enjoyed by men and women worldwide.



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Activities Part I

Activity 1- Geography

Trace the lineage of hijaz. Identify the regions and countries that use or have used the scale. As you can see, the whole world is made up of many kinds of music, languages, religions, and even races, but if you keep looking back in history, you will find that they all come from one source, just like branches of one big flourishing tree. Everything and everyone is connected.

Activity 2

Create your own barbershop quartet. Choose a fairly easy piece of music, like Aura Lee, and have students learn the melody. Sing it together, and then listen to a barbershop recording of the piece. Have students sing the melody along with the recording. For more advanced students, teach the harmony as well, and sing the four parts together.

Activity 3

Listen to measures 340-390 of Hijaz, and try to imitate the sounds you hear on the percussion. Then listen to a tabla recording. How closely do your voices resemble the tabla? Do you think a percussion instrument like the tabla can be made to imitate human sounds? What other instruments can you think of that can imitate human sounds? Can you imitate the sounds of other instruments?

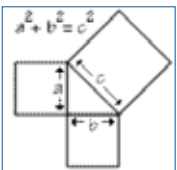
Activities Part II

Activity 4 - Mathematics

Michael Harrison says that he composed Hijaz using a variant of the ancient tuning system known as “just intonation,” or pure tuning, which is the universal foundation for harmony as constructed from musical intervals of perfect mathematical proportions. He notes that “Pythagoras and other ancient Greek philosophers and mathematicians discovered that musical harmonies arise from mathematical relationships based on whole numbers.”

Pythagorean tuning is a system of musical tuning based on mathematical ratios. Its name is attributed to its discovery by the Greek philosopher Pythagoras (582 - 500 BC). Pythagoras was a great thinker and introduced many ideas. He proposed the idea of eternal return (also known as “eternal recurrence”) which is a concept that says the universe has been recurring, and will continue to recur, in a self-similar form an infinite number of times across infinite time and/or infinite space. This concept was not new to Indian philosophy, which already had similar ideas, but it was new to the Greeks when Pythagoras first thought of it.

Pythagoras saw numbers in everything and declared, “All things are numbers.” The study of mathematics, he said, is a purifier of the soul. He also considered music purifying. He connected music with mathematics and discovered that the length of strings of a musical instrument corresponded to intervals between notes, which could be expressed in numbers. He also believed that the divine principles of the universe could be expressed in terms of relationships of numbers. That means that even though we cannot perceive some things with our senses, the secrets of the universe can be revealed by pure thought, that is, through deduction and analytic reflection. Pythagoras also associated numbers with form, and applied this idea to geometry. In your math class, the first lessons of plane geometry will usually start with the Pythagorean theorem about right-angled triangles: $a^2 + b^2 = c^2$. This means that the sum of two numbers that are multiplied by themselves will always be a third number that is multiplied by itself, and altogether they form a perfectly proportioned triangle. Go ahead and assign different numbers for a and b, and add them up. Your answer will always be the square of c. Neat, huh?



Pythagoras believed that we can answer most questions, but our answers will lead to new questions, and that's a good thing. When we use our minds and think hard, more possibilities will be opened, and new answers will be revealed.