

Environmental Education Teaching Resources: Enriching Guided Hikes with Classical Music



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Nature and Music: Made for Each Other!

Throughout the history of music, composers have been inspired by nature! The musical repertoire is filled with examples that you can use to illustrate interpretive programs about many different subjects. Google, YouTube and Wikipedia are your friends – you can find lots material on composers and specific pieces of music.

Composers invoke nature in several ways. For example, they may use instruments to simulate or suggest natural sounds, such as flutes imitating bird songs, booming drums to invoke thunder, or violins to suggest wind.

They may also try to capture the mood or feelings we would have while experiencing nature, rather than imitating its sounds. Music can describe a landscape, the shifting colors of reflections on water, the stately beauty of a crane or peacock. It amazes me how composers can take an experience that is visual and render it musically, translating from a visual medium into an auditory one, and still retain the essence of the experience.

Music can also be used in historical interpretation!

Famous people and events are often depicted in music. Aaron Copland wrote music which captures the American frontier, including a ballet to depict the life of *Billy the Kid*, and *Rodeo*. (Be aware that his famous ballet *Appalachian Spring* was neither inspired by Appalachia or spring – the title was an afterthought). Antonín Dvořák's *Symphony No. 9* "The New World" makes heavy use of Native American melodies, and the heart-rending 2nd movement was inspired by songs of African Americans.

If the "dead White male" nature of Classical Music bothers you, build a program around brilliant but forgotten composers (now being rediscovered) who were of the wrong sex or race for their times. Fanny Mendelssohn, Clara Schuman, Louise Farrenc, Amy Beach and Mary Howe were all great female composers; today, many widely-acclaimed contemporary composers are women. Scott Joplin, the King of Ragtime, wrote two operas and a piano concerto, but was not taken seriously as a composer during his lifetime due to his race. Neither was Louis Moreau

Gottschalk, an American Jewish Creole composer who found success abroad. Historical interpreters can help celebrate these forgotten gems and bring their music into the spotlight.

Preparing Sound Files

To prepare music selections for use during a nature hike, I create a digital sound bite as an MP3 file, using audio software on my computer. (I use Amadeus Pro v. 2.2 on a Macintosh, but many sound editing programs exist). I try to keep selections to about 1 minute – occasionally 2 – and try to find natural breaks in the music to end a sound bite. I use the software to create a fade in / fade out at the beginning or end of the musical selection if needed to avoid a jarring cut. Also, I've found it helps to include about 10 seconds of silence at the end of the sound clip to allow you to manage the equipment; otherwise your device may automatically begin playing the next clip before you are ready!

Music (and other audio content, like bird songs) is available in several places – from CD-ROMs that you may own or can borrow from the library; and on YouTube, where you can find recordings of less frequently performed works. Plug-in software is available as an add-on for most web browsers that will allow you to save content from YouTube as MP4 video files, which you can open with sound editing software to strip out the video elements.

I use iTunes on my Macintosh to organize all my sound clips, then add them to a program-specific playlist and synch them to my iPhone to take into the field. The iPhone wirelessly connects to a pair of portable speakers for audio playback. Make sure all your equipment is fully charged and your Bluetooth connection is working well before the program!

Choosing Your Musical Selections

The list below is just a sampling – with a little research on line, you can find much more music that relates to each of these topics. If you find something great that is not on this list, please share it with me!

The Essence of Birds

Camille Saint-Saens - *Carnival of the Animals* – This suite of short pieces is rich territory! There are numerous selections, including The Aviary (a musical description of free-flying birds), the Swan (a lovely piece for viola or cello that embodies the grace and beauty of a swan), Cuckoo Calling in the Woods at Night, and the Hens and Cockerels clucking in a barnyard. The suite shows how a composer can imitate natural sounds, or try to capture the essence or “feeling” of an animal.

Several composers capture duets of two night-singing European birds with recognizable calls, the European Cuckoo and Nightingale:

George Frideric Handel - *Organ Concerto in F* (No. 13) - The Cuckoo and the Nightingale (1st movement). This is a delightful happy piece of music, with the organist supplying both bird calls.

Ludwig von Beethoven - *6th Symphony* (Pastoral) - At the very end of the 2nd Movement (“By the Brook”) you’ll hear flutes and oboes mimic the calls of the Cuckoo, Quail, and Nightingale .

Antonio Vivaldi – *The Four Seasons*, in the Summer section, 1st movement – there is a duet of Cuckoo and Nightingale played on a solo violin. His Flute Concerto Op. 10 No. 3 is nicknamed “Il Gardellino” (The Goldfinch) because the flute imitates the various calls of the European Goldfinch.

Ralph Vaughn Williams - *The Lark Ascending* (violin and orchestra) - an achingly beautiful tribute to the song and free flight of the European Skylark, written on the eve of World War I. This short piece was inspired by a poem by George Meridith (I always quote a short excerpt – “’tis love of earth that he instills” and all that).

Charles Griffes - *The White Peacock* is an impressionistic tone poem from 1919: “The music tries to evoke the thousand colors of the garden and the almost weird beauty of the peacock amid these surroundings.” Inspired by a poem by William Sharp, describing the beauty of an Italian garden into which the peacock appears and spreads its tail.

Igor Stravinsky - *The Firebird* (esp. the Overture) The firebird is a mythological magical glowing bird which can be both a blessing and a bringer of doom to its captor. It appears as a large bird with majestic plumage that glows brightly like a bonfire.

Richard Strauss - *Last Four Songs* - the final song of the set uses the song of a skylark as a metaphor for a soul ascending to heaven.

Engelbert Humperdinck – in the opera *Hänsel and Gretel*, there is a duet between the lost children and a cuckoo calling in the forest; the lyrics (which are available on YouTube in English translation) are about the family habits of the European Cuckoo.

Ottorino Respighi - *The Pines of Rome*’s third movement ends with a recorded Nightingale song woven into gorgeous music. This was the first use of the new recording technology in a concert, and blew audiences away. Also “The Birds” – an orchestral suite featuring transcribed bird songs

Modest Mussorgsky - from *Pictures at an Exhibition* - Dance of the Unhatched Chicks is a fun little piece about chicks.

Jean Sibelius – The final movement of the *Symphony No. 5* is based on the gorgeous “Swan Theme,” inspired when this Finnish composer experienced a flight of swans taking off. *The Swan of Tuonela* is tone poem with beautiful English horn solo (Sibelius personally identified with swans).

Einojuhani Rautavaara - *Cantus Arcticus: A Concerto for Birds & Orchestra* sets recorded bird songs from bogs and marshes in Finland to an orchestral score in lieu of a solo instrument like a piano or violin. The cranes, geese and curlews all have counterparts in North America with similar calls. The middle movement is based on the song of the Horned Lark, slowed WAAAAY down.

Frederich Bergmuller – *The Swallow* (L’Hirondelle) is a short solo piano piece that captures the essence of a swallow in flight, with lots of dipping and swerving.

Antonín Dvořák – This Czech composer spent a summer in rural Iowa in 1892, which inspired him to write several pieces invoking American bird songs and melodies from Native Americans and African Americans. In his *String Quartet “American”* No. 12 (Op 96) (which is filled with melodies inspired by Native Americans), the song of the Scarlet Tanager appears in the 3rd movement near the beginning, in the high violin notes, after the main melody has been stated.

Gioachino Rossini – *The Thieving Magpie* (La Gazza Ladra) is an opera that includes a magpie that steals shining things and almost gets a servant hanged! But it has a happy ending and true love prevails. The overture has a theme (about 5 minutes in) to capture the essence of a cunning, curious mischievous magpie.

Pyotr Tchaikovsky – The ballet *Swan Lake* is based on a folktale of a beautiful princess transformed into a swan by an evil sorcerer. The music and dancers epitomize the beauty and majesty of swans. The music is incredible.

Alan Hovhaness – *Loon Lake* is a short nostalgic tone poem about the countryside and landscape of New Hampshire. The orchestra imitates the haunting call of a loon.

BONUS: Lynyrd Skynyrd's *Freebird* uses an electric guitar to simulate the twitterings of a bird, and right before the piece concludes, the lead guitar imitates the call of the Whip-poor-will.

The Essence of Water

Claude Debussy – *Reflets dans l’eau* (Reflections in the Water) is a solo piano piece that stunningly captures the colors and feeling of reflections in a pond or creek. I use this piece on all my fresh water programs. *La Mer* (The Sea) is a lyrically beautiful work that creates a feeling for the ocean in many different moods.

Ludwig von Beethoven - *6th Symphony* (Pastoral) The 2nd Movement (“By the Brook”) suggests a relaxing placidly flowing stream, complete with bird calls.

Bedrich Smetana – His gorgeous tone poem *The Moldau* about the Vlatava River that flows through the Czech Republic captures the river in various moods: as a baby stream bouncing over

rocks from clear mountain springs, to a slow woodland river, flowing through farmland where peasants dance, and as a mighty body of water flowing off join the Elbe. The whole watershed is captured!

Anatoli Liadov – *The Enchanted Lake* was inspired by a crystal clear lake under starry skies, tranquil and serene – a scene out of a Russian fairytale.

Pyotr Tchaikovsky – *Symphony 2* (The “Little Russian”) can be worked into stream / lake / marsh programs, since the first movement is based on the Ukrainian folk song “Down the Mother Volga” and the final movement explores another folk song, “Let the Crane Soar.”

Scott Joplin – *The Cascades* is an American ragtime piece that describes the fountain gardens created for the 1904 World’s Fair in St. Louis. The music brilliantly translates the spectacle of the garden’s waterfalls, rapids lagoons and fountains with complex rhythms and harmonies.

Camille Saint-Saens - *Carnival of the Animals* – There is so much material in this suite (see previous section). The Aquarium is an eerie languid piece that suggests glittering fish swimming in silver and green waters amid waving water weeds. I use it talk about fish in all my freshwater music programs.

Franz Schubert – *Die Forelle* (The Trout) is a musical setting of a German folksong about a trout and fisherman with a bouncy melody. Shubert later reworked the melody into the fourth movement of his piano and strings quintet in A Major, creating many playful variations on the catchy tune.

Johann Strauss – *The Blue Danube Waltz* is a glorious famous piece that captures the majesty of this mighty river.

Ferde Grofé – *The Mississippi Suite* in four short movements paints portraits of the great river – with homage to the Ojibwa in the beautiful opening, a nod to Huck Finn, and celebration of Louisiana’s Creole heritage.

The Essence of Landscapes

Ludwig von Beethoven - *6th Symphony* (Pastoral) This piece has it all! Beethoven loved walks in the country. The symphony is replete with all sorts of nature imagery, a peasant harvest festival (you can hear drunk people staggering around!), one of the best storm scenes in the musical repertoire, and a soaring melody as the clouds break up and the sun comes out. It was used in Walt Disney’s *Fantasia*.

Ottorino Respighi - *The Pines of Rome* was already mentioned for its use of recorded bird song, but the whole work is a love affair with the landscape and the pine groves around Rome. I created at pine forest ecology program based on this music.

Felix Mendelsohn – *The Hebrides Overture* captures the stormy climate and crashing waves around the Hebrides Islands of Scotland.

Ferde Grofé – *The Grand Canyon Suite* is the most famous of his compositions, including picturesque music that romantically paints the landscape of the canyon at dawn and sunset, and ends with a crashing storm sequence with wind, thunder and lightning simulated by the orchestra. Other compositions about landscapes include the *Death Valley Suite*.

His *Death Valley Suite* begins with a menacing opening called “Funeral Mountains” after the range that borders Death Valley - a strange atonal piece in 5/4 time.

Frederick Delius – *The Florida Suite* opens with dawn – a stirring tribute to beauty of Florida’s scenery. For me, the music paints a picture of the Everglades waking up with birds stirring.

Stephen Lias – *All the Songs that Nature Sings* was written to capture the composer’s feelings at Rocky Mountain National Park. Lias has written works about many of America’s national parks.

Ralph Vaughn Williams – Much of his music captures the pastoral essence of Britain’s countryside and traditional English folk songs. Both of the surviving *Norfolk Rhapsodies* are musical landscape paintings.

Frederic Chopin – The middle movement of his *Piano Concerto No. 1* “Romanza,” in the words of the composer, is "intended to convey the impression one receives when gazing on a beautiful landscape that evokes in the soul beautiful memories — for example, on a fine moonlit spring night." He was only 20 when he wrote this. It will blow you away.

Steven Heitzeg – *Ghosts of the Grasslands* paints a nostalgic portrait of the great vanished American prairie. The creative instrumentation uses gourd rattles, bison bones struck together, and doggie squeak toys for barking prairie dogs.

Modest Mussorgsky / Nikoli Rimsky-Korsakov — *A Night on Bald Mountain* is a famous piece that depicts the terrifying night of witches’ sabbath on a mountain top - filled with all kinds of musical pyrotechnics, fear and menace.

Alan Hovhaness – *Symphony #2 “Mystic Mountain”* is loaded with lovely musical motifs that suggest (to me) falling water and sparkling crystals. It is filled with mystery and soft, enchanting music...and a spectacular “double fugue” which doesn’t have anything to do with mountains but is great to listen to.

Bedric Smetana — *Ma Vlast* is a series of 6 tone poems celebrating the Czech Republic. *Vltava* #2 (the Moldau) is gorgeous. Two others from this series, “From Bohemia's Woods and Fields” #4, and “Mount Blanik” #6 after a famous mountain (really a hill) that figures in Czech mythology, also both present the Czech landscape, but they are not as striking as the Moldau.

The Essence of Night and the Stars

Rentaro Taki - *Kojo no Tsuki* (Moon over the Ruined Castle) is a lovely and haunting little melody, which has become famously popular in Japan. Originally written as a study for a piano student around 1900, it has been arranged for many instruments.

Ludwig von Beethoven -*The Moonlight Sonata* (No. 14) was not given this title by Beethoven himself, but by a German music critic: the lovely first movement of this solo piano work made him think of moonlight reflecting on Lake Lucerne. We’ll never know if Beethoven thought of moonlight.

Frederic Chopin – His *Nocturnes* are a collection of 21 solo piano pieces that evoke the essence of the night, some of the finest short solo piano works ever written. My personal favorite is No. 8 in D Flat, but listen to them all. See also the previously-mentioned middle movement of his *Piano Concerto No. 1* “Romanza,” invoking a moonlit landscape.

Gustav Holst – *The Planets* is a seven-movement suite, with a movement about each of the planets. Holst was an astrologer, not an astronomer, and was trying to capture the “personality” or character embodied by each planet, and its influence on the human psyche.

Urmas Sisask – *Spiral Symphony* is a collection of 9 piano pieces (4 hands) about spiral galaxies. Movement 6 “Gigantic Spirals” is about galaxy M81 (easily visible in small telescopes) which is interacting with and will eventually collide with and devour its smaller neighbor M82. The piece is dramatic and filled with brooding menace.

Mary Howe – *Stars* (1927) by this 20th Century American composer depicts an evening on her porch, watching the stars come out one by one, as an "evocation of the heavens and the gradually overwhelming effect of the dome of a starry night - its peace, beauty and space."

Claude Debussy –*Clair de Lune* (Moonlight) is a stand-alone solo piece inspired by the poet Paul Verlaine: the essence of moonlight, sad and lovely. Imagine an impressionist painting of the moon set to music.

Antonín Dvořák – The opera *Rusalka* is about a female water spirit who falls in love with a mortal. Her song to the moon about her lover is heart-wrenchingly beautiful.

Missy Mazzoli - Sinfonia (for Orbiting Spheres) is music in the shape of a solar system, a cycling collection of rococo loops that twist around each other within a larger orbit.

Vilém Blodek – The opera *In the Well* contains a lovely intermezzo “Moonrise” as the moon comes up, illuminating the person trapped down the well. Almost worth getting stuck in a well!

Leigha Amick - *Gossamer Depths* was inspired by the Hubble Space Telescope's image of the Orion Nebula. “Swirls of dust and space gases are represented by 16th-note runs throughout the orchestra. And then there are stars on top of all this, and those are accented notes, mostly in winds, brass and percussion.”

Franz Josef Hayden - The comic farce opera *Il Mondo de la Luna -Overture*. This is the story of a would-be astronomer convincing his girlfriend’s father that, with the aid of a powerful telescope, they can spy on ladies undressing on the moon.

Alan Hovhaness – *Symphony No.53 Star Dawn* evokes space travel and arrival at a distant planet. Bells symbolize the stars, flowing melodies give a sense of journey, and chorales symbolize humankind.

Odds and Ends

Music depicts nature in so many ways that you can probably find something to enrich just about any program! A brief internet search turns up pieces that were inspired by butterflies and insects, by spring or autumn, by weather, by the ocean, by flowers, by mountains.

Antonio Vivaldi – *The Four Seasons* is very rich with musical imagery. Birds twitter, wasps swarm, leaves rustle, dogs bark; there’s an awesome storm sequence in Summer, and howling winds in Winter; staggering drunk peasants celebrate the harvest in Autumn.

He Zhanhao and Chen Gang - *The Butterfly Lovers Violin Concerto* is a gorgeous contemporary piece from China, written before the Cultural Revolution. It tells the tragic story of star-crossed lovers who are reincarnated as butterflies so they need never be separated.

Nikolai Rimsky-Korsakov – *Flight of the Bumblebee* is a rapid, perpetual motion piece.

Camille Saint-Saens - *Carnival of the Animals* – You can mine this for all kinds of material! For a program about geology or dinosaurs, check out the humorous movement Fossils in which the xylophone suggests rattling bones.

Jeffrey Nyte - Symphony No. 1, “Formations” was “inspired by the geology of the Rocky Mountains and explores the relationship between humans and the geology around us.”

Aleksander Glazunov - *Waltz Of The Cornflowers And Poppies* is a lovely upbeat musical depiction of flowers.

Pyotr Tchaikovsky – The Waltz of the Flowers from *The Nutcracker* also captures flowers with lovely music.

Manuel de Falla - *Ballet Love the Magician: Ritual Fire Dance* really captures the essence of a burning fire, as well as the essence of Spain.