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Author(s)	Ho Hwee Long & Yee Sze Onn
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The Sound of Music in the Geography Classroom

Ho Hwee Long &
Yee Sze Onn

For many people, music is almost exclusively entertainment; for others, it is an aid to worship and a means of promoting patriotism. Repetitive rhythms and melodic patterns are used by various religious groups as in Africa and India to produce ecstatic conditions in the individual. For the teacher, music can be a powerful pedagogical tool to stimulate curiosity, capture students' attention, and develop the affective domain.

Lessons in geography can be made interesting through the use of music as it can create a particular mood. Conversely, music students can gain a deeper understanding of music, given a knowledge of geography. In using music to enrich the learning experience, musical extracts should be selected carefully. Each extract should have a single theme. Such music may be a description of mountains, rivers and oceans, atmospheric conditions, or the character of a place or region.

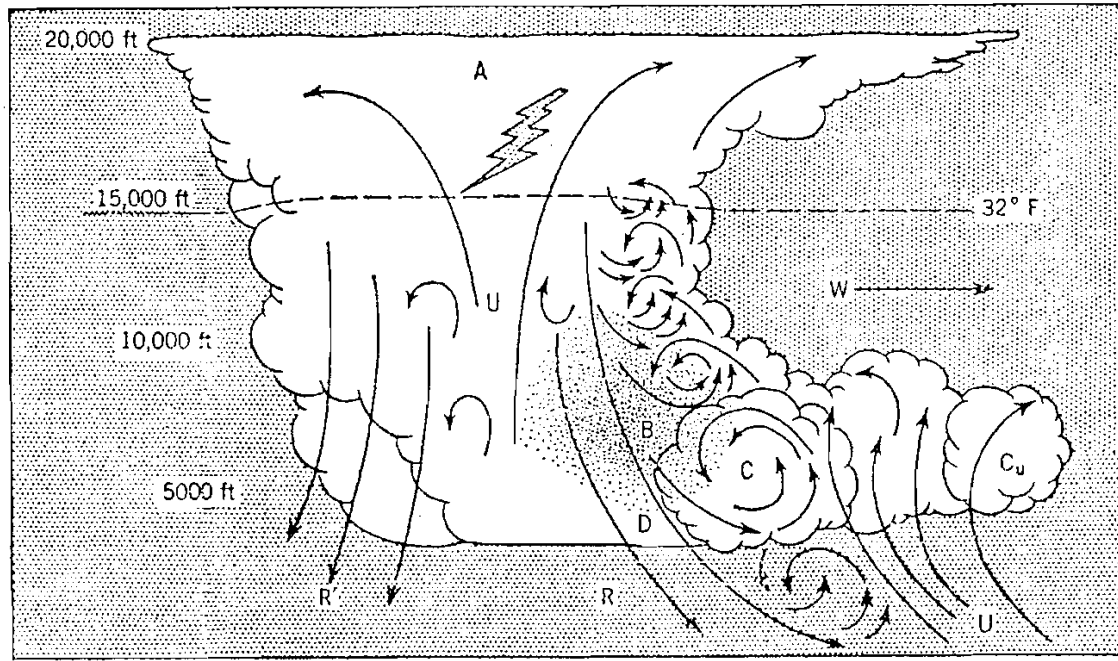
MUSIC AND WEATHER

Many musical compositions relate to weather. Perhaps, the earliest and best known composition of this type of music is *The Four Seasons* written in the early 18th Century by the Italian composer, Antonio Vivaldi. Each season, as well as the effects of the weather on man and his activities is depicted by a 3-movement concrete grosse.

Towards the end of the 19th century, Franz Joseph Haydn wrote a secular oratorio, *The Seasons*, which describes the changing weather and people's activities in a rural setting. Of particular climatological significance is the orchestral introduction to winter, which depicts fog and mist.

Perhaps, the best-known example of meteorological music is the brief but violent thunderstorm movement from Beethoven's Sixth Symphony, better known as the *Pastoral* Symphony. Beethoven's thunderstorm is pictured in vivid detail even to the ominous darkening of the skies and the first audible distant thunder. At one point, the picole

is used to convey the shrieking of gale-force winds. This piece forms a fitting conclusion to a lesson on a tropical thunderstorm. Conversely, it can be played to arouse interest in the topic before the development of the lesson. The features of a thunderstorm and the different stages in the development of a storm can then be explained by the teacher, with the aid of diagrams. (Figures 1 & 2)



Key to diagram of cumulonimbus cloud

- | | | |
|---|---------------------|--------------------|
| A - Anvil top | B - Dark area | C - Roll cloud |
| C _u - Advance cumulus clouds | D - Down drafts | U - Up drafts |
| R - Primary rain area | R' - Secondary area | W - Wind direction |

Figure 1: Vertical section through a local heat thunderstorm and its cumulus cloud.

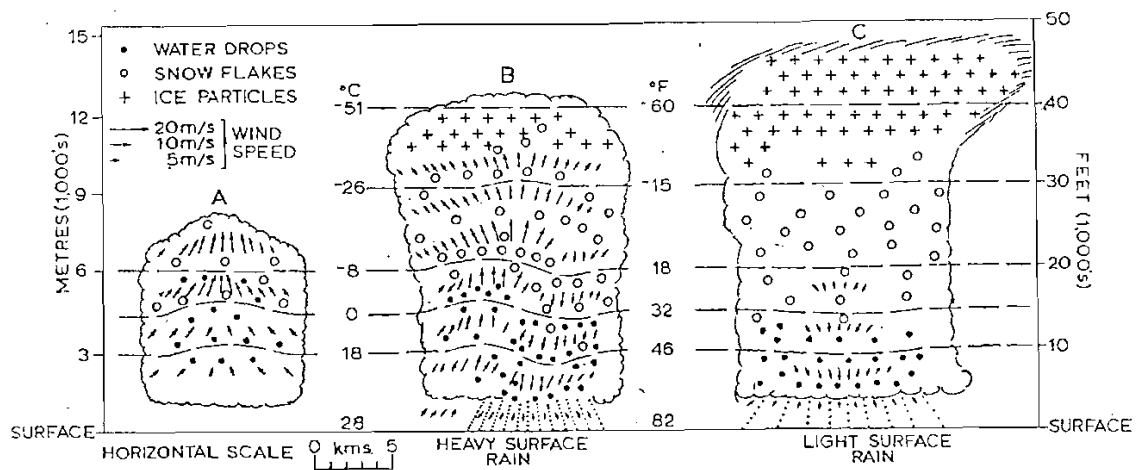


Figure 2: The cycle of thunderstorm development. The arrows indicate the direction and speed of air contents.

- Left: The developing stage of the initial updraught.
- Centre: The mature stage with updraughts and downdraughts.
- Right: The dissipating stage dominated by cool downdraughts.

The *Grand Canyon Suite* by the American composer, Ferde Grofe has sections describing sunrise and sunset and a finale movement entitled “cloudburst”, which features a thunderstorm rivalling Beethoven’s in ferocity. The lightning is portrayed by cymbals and a piano while the tympani (drums and other percussion instruments) herald the thunder. Richard Strauss’s *Alpine Symphony* depicts an ascent of one of the higher peaks in the Alps, with one section describing fog as the observer climbs through the clouds and another passage depicting a violent thunderstorm. The introduction to the third act of *Die Walkure* by Richard Wagner depicts the gathering of the daughters of Wotan on a wild storm-lashed mountain peak amidst lightning and thunder. A storm of similar intensity forms a major portion of Moussorgsky’s *Night on Bald Mountain*.

However, not all weather music is descriptive of storms and violent atmospheric phenomena. A gentle rain is depicted by Hugo Alfren’s *Summer Rain* and fair-weather clouds in Rimsky Korsakov’s song *The Flight of Passing Clouds*. Musical compositions such as these can help to heighten interest in the study of atmospheric processes and phenomena. For the music student, a study of these atmospheric events can add a new dimension to musical appreciation.

MUSIC OF THE OCEANS

There is a wealth of music about the sea — an overture by Mendelssohn, *The Hebrides Op. 26 (Fingal’s Cave)* is evocative of the scenery of Fingal’s cave on the island of Staffa, a weird formation of pillar-like rocks that had been discovered in 1782 and named after a hero of Gaelic mythology. The music conjures up the image of wave movement and its erosive power. This is achieved at the beginning by cellos, clarinets and bassoons while the occasional roll of drums heralds the approach of large waves as they surge and break violently upon the rocks. The music increases in intensity as the sea becomes stormier. This overture could help to give a lift to a lesson on marine erosion and the development of coastal features like caves, arches, and stacks by storm waves. In using this musical composition, the music could be played and each stage in the movement of the sea as it changes is explained to the students in the manner outlined below.

1 THE FLUTTER OF WATER AND WAVES SNAPPING ON THE ROCKS (BARS 1 AND 2)

A short melody played by cellos, violas and bassoons suggest the play of water. The timpani roll symbolizes the sound of waves breaking gently on the rocks.

2 Fagotti

Viola

Violoncello

2 THE MOTION OF WAVES (BAR 9-16)

The violin theme depicts the oscillating movement of each wave.

vi.

3 THE WHISPER OF THE SEA (BAR 30-34)

This passage played by woodwind conveys the whisper of the sea.

Fl.

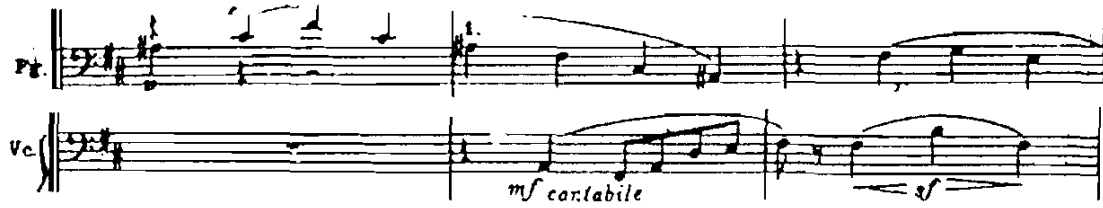
Ob.

Cl.

Fg.

4 SMALL GENTLE WAVES (BAR 47-56)

The lyrical and flowing theme create an image of a wavy sea.



5 VASTNESS OF THE SEA (BAR 89)

The woodwind and brass strike out a fanfare-like rhythm while the strings are engaged with ostinatic passages. The building up of climax portrays the vastness and grandeur of the ocean.



6 STORM, WAVES CRASHING AND SEA SCUMING

The sharp contrast in dynamics, dramatic changes of articulations and rapid passages with sustained sound, all contribute to the exciting climax.



7 TRANQUILLITY (FINAL 3 BARS)

The beautiful variation by clarinet portrays a return to quiet condition.

The musical score consists of three staves: Flute (Fl.), Oboe (Ob.), and Clarinet (Cl.). The Flute part begins with a melodic line in the first bar, followed by a rest in the second bar, and then a phrase starting in the third bar with a dynamic marking of *p*, which then fades to *dim.* and *pp* in the fourth bar. The Oboe part has a melodic line in the first bar, a rest in the second bar, and then a phrase starting in the third bar with a dynamic marking of *pp*. The Clarinet part has a melodic line in the first bar, a rest in the second bar, and then a phrase starting in the third bar with a dynamic marking of *pp*. The score includes various musical notations such as slurs, accents, and dynamic markings.

To illustrate the movement and breaking of each wave and the features produced as a result of wave action, slides could be shown. In this way, the linkage between sight and sound can be formed and reinforced.

The entire composition of Debussy's *La Mer* is about the sea but the *Dialogue* section portrays the restlessness and constant motion of the sea on a windy, exposed shore. The varying moods of the sea are brought out in the Four Sea Interludes from *Peter Grimes* by Benjamin Britten. The last part of the fourth section of Rimsky-Korsakoff's *Scheherazade* is a dramatic description of a storm at sea culminating in a shipwreck.

MUSIC OF THE RIVER

Smetana's magnificent composition (*Die Moldau*) is primarily about the river of that name. It has passages portraying the river on a placid moonlit night as well as plunging over rapids. The music progresses from the initial flute melody representing Vltava's sources in the Bohemian mountains to a full-bodied orchestration portraying a broad and noble river as it flows "in majestic peace toward Prague past banks inhabited by people and the site of the castle of the ancient Bohemian kings".

Music can provide the stimulus for learning. Towards this end, a variety of interesting instructional experiences which are

interdisciplinary and creative can be designed by the teacher and introduced in lessons on geography or music. The following are examples of such learning experiences:

- ♪ Describe a storm to the class. Let each child choose one aspect of the storm and describe it musically.
- ♪ Create a suite of pieces about various types of weather. This could be linked with a project on meteorology.
- ♪ Have children listen to a musical composition on the sea and ask each child to describe the changing moods of the sea and the movement of waves — in poem or in prose.
- ♪ Use Mendelssohn's *Fingal's Cave* as a starting point for a discussion on the geomorphic effects of breaking waves when they come into contact with jointed rocks.
- ♪ Introduce a lesson on the work of rivers using Smetana's *Die Moldau*.

CONCLUSION

Musical compositions selected with care can help students form images of landscapes and understand the various agencies and processes that have shaped them. For the music student, an understanding of geographical processes and phenomena can enrich their appreciation of music that has been inspired by the majesty of mountains, oceans, and seas.

The creative teacher can use music as a basis for a variety of learning activities which can do much to enrich the learning and teaching of music and geography.

Ho Hwee Long is a senior lecturer in the Division of Visual and Performing Arts, School of Arts, at the National Institute of Education.

Yee Sze Onn is a lecturer on geography and geography education in the Division of Geography, School of Arts, at the National Institute of Education.

APPENDIX I

A SELECTION OF MUSICAL COMPOSITIONS AND APPLICATION TO ASPECTS OF GEOGRAPHY

Music of the ocean

- Claude Debussy *La Mer*
- Benjamin Britten *Four Sea Interludes Op. 33a from Peter Grimes*
- Rimsky Korsakov *Scheherazade*
- Tchaikovsky *The Tempest*
- Mendelssohn *The Hebrides*
 (Fingals Cave)
- Wagner, R. *Flying Dutchman Overture*
- Delius *A Sea Symphony*

Weather music

- Vivaldi: THE FOUR SEASONS
- J. Haydn: THE SEASONS
- Clazunov: THE SEASONS - Ballet Music
- Tchaikovsky: THE MONTHS
- Tchaikovsky: SYMPHONY NO. 1 "WINTER DREAM"
- Schumann: SYMPHONY NO.1 "SPRING"
- Stravinsky: THE RITE OF SPRING
- V. Williams: SINFONIA ANTARCTICA

MUSIC DESCRIBING SPECIFIC METEOROLOGICAL PHENOMENA

Thunderstorms

- Berlioz: SYMPHONIE FANTASTIQUE 3RD MOVEMENT
- Mozart: CONTRADANCE K.534 "THE THUNDERSTORM"
- Johann Strauss Jr.: THUNDER LIGHTNING POLKA

- Rossini: WILLIAM TELL OVERTURE 2nd Part
- Richard Strauss: THE ALPINE SYMPHONY “Thunderstorm”
- Moussorsky: NIGHT ON BALD MOUNTAIN
- Beethoven: SYMPHONY NO.6

Rain

- Debussy: *Garden in the rain*

Clouds

- Debussy: *Nuages from Image for Orchestra*

Winds

- Debussy: *The Wind on the Plain* from Preludes.

Music of the river

- Bedrich Smetana: *Die Moldau*

Music of landscape

- Ferde Grofe: *Grand Canyon Suite*
- Richard Strauss: *The Alpine Symphony*