



From Minnesota Public Radio's Sound Learning ([www.soundlearning.org](http://www.soundlearning.org))

## Sound Learning Feature for March 2004

From *American Mavericks* ([www.musicmavericks.org](http://www.musicmavericks.org))

Many of America's maverick composers have become inventors. The cultured music we inherited from Europe, and even the musics that have been brought here from Asia and Africa, have not always been sufficient for the needs of democratic, commercial, noisy, fast-paced America. The oboe, the piano, the violin cannot always play the music we Americans hear in our heads. And so we improvise. Artistic necessity becomes the mother of musical invention.

Musicians such as Harry Partch, Ben Johnston, and John Cage were pioneers of invention. The effect of American musical innovation has rendered composers self-sufficient and free from institutions, establishing the maverick image.

The stories in this month's feature are of particular interest to teachers and students of music, history, and social studies.

In the following pages, find instructional ideas and study guides intended to aid in the teaching of:

- Listening comprehension.
- Reading comprehension.
- Critical thinking.
- Research challenges.
- Key terms and topics.



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- 4) Why did Ben Johnston begin writing in a new system of tuning named "extended just intonation"? Why did he think such a system was needed?
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- stasis
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- ubiquitous
- resound
- resonance

### Musical Terms

- contrapuntal
- cluster chord
- polyrhythm
- harmonic series
- tempo Canon
- interval
- tempo
- crescendo
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### Key Terms

- prepared piano
- percussion orchestra
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- Pulitzer Prize
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### Critical Thinking:

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5) *Most often in times of economic recession and depression federal funding for the arts is severely limited. These restrictions manifest themselves in funding of national programs such as National Endowment of the Arts and arts education in the public school systems. Private funding is also restricted because arts funding is seen as a luxury as opposed to a necessity. After returning from Europe, Partch encountered such hardships. The Great Depression made arts, especially those that were more experimental, scarce. Partch became a Hobo and later used this experience in his musical works.*

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7) *Ubiquitous is defined as being everywhere at the same time or being omnipresent. The computer revolution allows a greater number of people to access and manipulate information and devices that, at one time, were only accessible to a smaller privileged class of people. The Internet now makes the sharing of these ideas more available and omnipresent.*

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## **Answer Key**

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**Notorious:** *Known widely and usually unfavorably; infamous*

**Improvise:** *To invent, compose, or perform with little or no preparation*

**Consonant:** *Corresponding or alike in sound, as words or syllables*

**Derogatory:** *Disparaging; belittling*

**Prodigious:** *Impressively great in size, force, or extent; enormous*

**Interminable:** *Being or seeming to be without an end; endless*

**Bemused:** *Engrossed in thought*

**Conventional:** *Based on or in accordance with general agreement, use, or practice; customary*

**Ubiquitous:** *Being or seeming to be everywhere at the same time; omnipresent*

**Resound:** *To fill with sound; reverberate*

**Resonance:** *Intensification and prolongation of sound, especially of a musical tone produced by sympathetic vibration*



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## **Answer Key**

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## Sound Learning Feature for March 2004

From *American Mavericks* ([www.musicmavericks.org](http://www.musicmavericks.org))

Many of America's maverick composers have become inventors. The cultured music we inherited from Europe, and even the musics that have been brought here from Asia and Africa, have not always been sufficient for the needs of democratic, commercial, noisy, fast-paced America. The oboe, the piano, the violin cannot always play the music we Americans hear in our heads. And so we improvise. Artistic necessity becomes the mother of musical invention.

Musicians such as Harry Partch, Ben Johnston, and John Cage were pioneers of invention. The effect of American musical innovation has rendered composers self-sufficient and free from institutions, establishing the maverick image.

The stories in this month's feature are of particular interest to teachers and students of music, history, and social studies.

In the following pages, find instructional ideas and study guides intended to aid in the teaching of:

- Listening comprehension.
- Reading comprehension.
- Critical thinking.
- Research challenges.
- Key terms and topics.



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## Reading/Listening Comprehension Questions

The following questions are based on the program "If You Build It, They Will Come!." Teachers may choose to use the program audio or accompanying essay by Kyle Gann.

**Program page:** <http://www.musicmavericks.org/programs/program5.html>

**Program audio:** <http://www.musicmavericks.org/programs/rafiles/program05.ram>

**Essay:** [http://www.musicmavericks.org/features/essay\\_gann05.html](http://www.musicmavericks.org/features/essay_gann05.html)

- 1) In 1940, why did John Cage's percussion orchestra fail in its work with Sylvia Fort's Choreography? To what musical invention did this failure lead?
- 2) In the early 20th century, music based on the European model was pretty much all that was heard in America's concert halls. Why did this begin to change?
- 3) Henry Cowell is credited with being the first person to play the piano in what untraditional ways?
- 4) What did Henry Cowell invent and introduce in his early book *New Musical Resources*?
- 5) What led to Conlon Nancarrow's extensive use of the player piano?
- 6) What was Harry Partch rebelling against by burning his compositions at age 29?
- 7) Of what kind of music has Harry Brant been a leading pioneer? Which one of Brant's inventions has not been built and why?
- 8) What was Brant's reason for separating groups of instruments?
- 9) How does Trimpin's use of computers and electronics differ from most composers using computers?



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## Critical Thinking Questions

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**Program audio:** <http://www.musicmavericks.org/programs/rafiles/program05.ram>

**Essay:** [http://www.musicmavericks.org/features/essay\\_gann05.html](http://www.musicmavericks.org/features/essay_gann05.html)

- 1) If you were an American citizen living in the early 20th century, what new noises would invade your every day life? Why would composers want to incorporate some of these noises into their compositions?
- 2) How did Conlon Nancarrow's political decisions influence his move to Mexico City in 1940? How do you think it this move affected his musical career?
- 3) W.B. Yeats said of Harry Partch that he was "one of those young men with ideas, the development of which it is impossible to foretell, just as I was 30 years ago." Why would Yeats say this? What impact has the work of Harry Partch had on 21st century music?
- 4) Why did Ben Johnston begin writing in a new system of tuning named "extended just intonation"? Why did he think such a system was needed?
- 5) Economic realities influence the artist's world view. How did the Depression affect Harry Partch? How does economic recession affect the arts in general?
- 6) What did Trimpin's early teachers think about him? How did Trimpin's educational experiences influence his career and inventions?
- 7) Why would the advancement in technology and the onset of the digital age make "Yankee inventiveness" ubiquitous?



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## Research Challenges

The following questions and project ideas are based on various features found on the *American Mavericks* Web site. Students are encouraged to explore this site (and others) to research their answers.

<http://www.musicmavericks.org>

- 1) At the beginning of the 20th century, an explosion in musical innovations changed conventional ideas about rhythm and harmony. Among these innovators was Arnold Schoenberg (1874-1951). How did Schoenberg reshape harmony and melody in the 20th century? How did this affect his student John Cage?
- 2) American musical pioneers sought to distinguish themselves from their European counterparts and the European structure of music taught in schools. How did the unique societal forces at play in the United States affect these pioneers?
- 3) Some American musical mavericks are known for working with found objects. What do you think the found objects of the 21st century will be? How will technological advances affect this kind of pioneering?
- 4) American composers have delighted in using found materials in their compositions. Recently, pop singer Bjork paired with San Francisco duo Matmos to create the *Vespertine* album; a work based on found sounds. Compare and contrast the work of the American musical mavericks with the work of Bjork and Matmos.
- 5) Harry Partch was known as the voice of the highway in American music and Jack Kerouac was known as the voice of the Beat generation in American literature. Compare and contrast Harry Partch and Jack Kerouac.
- 6) One of the desired results of invention is to be self-sufficient and free of the constraints of organized music-making. But can total freedom be obtained if music is, in part, based on a relationship between performer and audience? What parts of institutionalized music have yet to be liberated?
- 7) The Great Depression had dramatic effects on nearly all aspects of American life and



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culture. What were the effects on the musical and visual arts?

8) Mavericks defy tradition and create new ideas with fierce independence. Who are some of the mavericks in the visual arts? What media or techniques do they use that separate them from the mainstream?

9) Who is Kitundu? What is it about his work that qualifies him as a maverick?

10) Project: Review and explore the following links (available at <http://www.musicmavericks.org/features/>):

- **Margaret Leng Tan and the Prepared Piano (12:37)**  
**high bandwidth video:** <http://www.musicmavericks.org/features/rafiles/mlt.ram>  
**low bandwidth video:** <http://www.musicmavericks.org/features/rafiles/mltlo.ram>
- **The Rhythmicon**  
<http://www.musicmavericks.org/rhythmicon/>
- **Harry Partch's Instruments**  
[http://www.musicmavericks.org/features/feature\\_partch.html](http://www.musicmavericks.org/features/feature_partch.html)



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## Key Terms

The following vocabulary words are taken from various features on the *American Mavericks* Web site.

<http://www.musicmavericks.org>

### Vocabulary

- aesthetic
- oscillating
- stasis
- choreography
- ambiance
- notorious
- improvise
- consonant
- derogatory
- prodigious
- interminable
- bemused
- conventional
- isolation
- ubiquitous
- resound
- resonance

### Musical Terms

- contrapuntal
- cluster chord
- polyrhythm
- harmonic series
- tempo Canon
- interval
- tempo
- crescendo
- octave
- acoustic

### Key Terms

- prepared piano
- percussion orchestra
- maverick musician
- Yankee inventiveness
- Pulitzer Prize
- virtual Rhythmicon
- spatial music
- microtonal



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## Answer Key

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### Reading/Listening Comprehension:

- 1) *The stage was too small for his percussion orchestra, and there was no pit to put the players in. Cage invented the prepared piano.*
- 2) *America had become a democratic, noisy, fast-paced, commercial culture. The traditional music from Europe did not always reflect the needs of a changing America, so American maverick composers began to improvise and invent music and musical instruments to reflect America's changing culture.*
- 3) *Cowell was the first to strum the strings of the piano, and he also was the first to run his fingernail along a piano string.*
- 4) *Cowell invented a new approach to rhythm, dividing measures into many different divisions. This allowed several tempos to be played at the same time.*
- 5) *He was responding to Henry Cowell's book *New Musical Resources*, which said that while polyrhythms may be impossible to play for human performers, "these highly engrossing rhythmical complexes could easily be cut on a player piano roll."*
- 6) *After reading Henry Cowell's book, *New Musical Resources*, and the classic 1885 text on musical acoustics, *On the Sensations of Tone*, by the German scientist Hermann Helmholtz, Partch burned his compositions as an act of rebellion against what he thought was the lie of European tuning, which only provided approximations of the true, consonant intervals found in nature.*
- 7) *Brandt was the leading pioneer of "spatial music." His invention of a concert hall, with moveable walls to change its acoustics has not yet been built because it is an extremely expensive project.*
- 8) *By separating groups of instruments, Brant was able to use more contrapuntal lines at once, and still allow the ear to distinguish them.*



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9) *Trimpin uses computers to make acoustic music that is not played by human performers. He also invents new instruments from untraditional materials.*

### Critical Thinking:

1) *The turn of the century birthed many new mechanical inventions such as the airplane, continued advances in the automobile and many devices that promised to make everyday life more convenient. With these machines came many noises. A 1943 Life magazine article about maverick composer Henry Cage, said "Cage believes that when people get to understand and like his music, which is produced by banging one object with another, they will find new beauty in modern life, which is full of noises made by objects banging against each other."*

2) *Nancarrow was a member of the Communist Party in the McCarthy-era, when there was an increased paranoia about Communists. Many of Nancarrow's friends and fellow communists were beginning to be hassled by the government, so he moved to Mexico City. Working in isolation in Mexico, Nancarrow was allowed to experiment and express his ideas with great freedom, but it was not until researchers pursued his work in the late 1970s that his work was explored by human performers, and granted publicity.*

3) *The Nobel Prize winning Yeats, was one of the greatest poets of the 20th century. As a young man, he had yet to reach his full potential, and most likely could not foretell his own imminent success. The work of Harry Partch paved the way for experimental music, and performance art with his focus on "corporeal" music. Current uses of technology in electronic music explore many of the ideas Partch was experimenting with, and performance art often expresses aesthetics through combinations of art forms, all visually expressing the idea of the creator/composer.*

4) *Johnston had worked as an assistant to Partch, and had developed experience with the ideas of new tunings, and pitch relationships. In his own work, he found that there was not a way to write different tunings for conventional instruments, so he invented one.*



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5) *Most often in times of economic recession and depression federal funding for the arts is severely limited. These restrictions manifest themselves in funding of national programs such as National Endowment of the Arts and arts education in the public school systems. Private funding is also restricted because arts funding is seen as a luxury as opposed to a necessity. After returning from Europe, Partch encountered such hardships. The Great Depression made arts, especially those that were more experimental, scarce. Partch became a Hobo and later used this experience in his musical works.*

6) *Trimpin's early teachers declared him incapable of learning. Thus he was relegated to studying metal work and electronics. His inventions for handicapped patients most likely were a direct result of his earlier educational experiences, and his knowledge of electronics and metal influenced his work with junk-like materials and computers.*

7) *Ubiquitous is defined as being everywhere at the same time or being omnipresent. The computer revolution allows a greater number of people to access and manipulate information and devices that, at one time, were only accessible to a smaller privileged class of people. The Internet now makes the sharing of these ideas more available and omnipresent.*

### Vocabulary words:

**Aesthetic:** *Of or concerning the appreciation of beauty or good taste*

**Oscillating:** *Swinging back and forth with a steady, uninterrupted rhythm*

**Stasis:** *A condition of balance among various forces; motionlessness*

**Choreography:** *The art of creating and arranging dances*

**Ambiance:** *The special atmosphere or mood created by a particular environment*



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