



# CRAFT IN AMERICA

## EDUCATION GUIDE

### History and Improvisation: Making American Music



*"We play the same songs but the solos are different every night. The form is the same, but the improvisations are what is really what makes that music what it is...Jazz is about being creative, all the time."*

– Scotty Barnhart

#### LESSON OVERVIEW

In this lesson, students will view the *MUSIC* episode from the PBS series *Craft in America*. The episode features the skilled craftwork required to make ukuleles, trumpets, banjos, guitars, and timpani mallets. Students will hear musicians playing each of the instruments. Students will also hear the musicians talk about their personal connection to their instruments. Additionally, the program illustrates how a study of American music is a study of American history.

After viewing the episode, students will investigate connections between musicians and their instruments and between American music and American history. The studio portion of the lesson is designed around the idea of creating a maker space in which students experiment with and invent prototype instruments. Instructions are also included for a basic banjo made from a sturdy cardboard box.

Note: While this lesson can take place completely within the art department, it is an ideal opportunity to work with music teachers, history teachers, technical education teachers, and physics teachers (for a related study of acoustics.)

**Grade Level:** 9-12

**Estimated Time:** Six to eight 45-minute class periods of discussion, research, design

**Craft In America Theme/Episode:** *MUSIC*

#### Background Information

*MUSIC* focuses on finely crafted handmade instruments and the world-renowned artists who play them, demonstrating the perfect blend of form and function. By exploring how various instruments are perfected, *MUSIC* also offers viewers a unique journey through our country's past, detailing the contributions of jazz and Appalachian roots music to the American cultural landscape, as well as the intersection of the guitar and political activism, and how the legacy of West African instruments is embedded in the American banjo. *MUSIC* features interviews and performances from Joan Baez, Rhiannon Giddens, Director of the Count Basie Orchestra Scotty Barnhart, banjo master Tony Ellis, L.A. Philharmonic timpanist Joseph Pereira, and virtuoso ukulele player Jake Shimabukuro. Instrument makers featured are Martin Guitar, Hartel Banjos, Monette trumpets, Stelling banjos, and Kamaka ukuleles.

## Key Concepts

- American music traces the history and politics of the nation.
- Musicians have a personal connection to their instruments.
- Musical instruments can be made from everyday materials.
- Hand crafting can be used to refine the function and beauty of musical instruments.

## Critical Questions

- In what ways does American music trace the history and politics of the nation?
- How do musicians demonstrate a personal connection to their instruments?
- How can musical instruments be made from everyday materials?
- Why is hand crafting important in the creation of many musical instruments?

## Objectives

Students will:

- Trace connections between American music and American history and politics illustrated in the *MUSIC* episode.
- Analyze the personal connections musicians have to their instruments.
- Experiment to design a musical instrument from recycled materials.
- Describe how handcrafting techniques can refine the function, beauty, and meaning of a musical instrument.

## Vocabulary

Ukulele, banjo, timpani, minstrel show, context, decontextualize, diaspora, prototype, sound board, acoustics, fingerboard, fret, inlay, articulate.

## Interdisciplinary Connection

- Music: The study of various aspects of music is embedded throughout the lesson.
- Technical Education: The maker space movement brings together art, design, and technology to form an interactive, experimental space in which creation can happen. Technical Education teachers may help to provide expertise about materials, equipment, and tools that make for a rich and productive maker space.
- History/Social Studies: This lesson contains an investigation of minstrel shows in 19th century America, and also looks at the history of the ukulele in Hawaii, the origins of jazz, and the role of the guitar in political protests.
- Science/Physics: Students will be experimenting with acoustics and the ways in which altering materials affects changes in sounds. A physics teacher can help students investigate the science behind those changes.

## National Standards for Visual Arts Education

- Document the process of developing ideas from early stages to fully elaborated ideas. (VA:Cn10.1HS1)
- Use multiple approaches to begin creative endeavors. (VA:Cr1.1HSI)
- Appraise the impact of an artist or a group of artists on the beliefs, values, and behaviors of a society. (VA:Cn11.1HSIII)

## **Resources and Materials for Teaching**

### **Resources**

- Craft in America DVD, *MUSIC*. Also viewable online at [www.craftinamerica.org/episodes/music](http://www.craftinamerica.org/episodes/music)
- Craft in America website, [www.craftinamerica.org](http://www.craftinamerica.org)
- Rhiannon Giddens' website: [www.rhiannongiddens.com](http://www.rhiannongiddens.com)
- History of minstrelsy on Wikipedia: [en.wikipedia.org/wiki/Minstrel\\_show](http://en.wikipedia.org/wiki/Minstrel_show)
- Joan Baez's website: [www.joanbaez.com](http://www.joanbaez.com)
- Jake Shimabukuro's website includes video of his ukulele performances as well as more information: [www.jakeshimabukuro.com](http://www.jakeshimabukuro.com)
- The Martin guitar site has downloadable magazines about acoustic guitars and other information worth exploring: [www.martinguitar.com](http://www.martinguitar.com)

### **Worksheets**

- *Musical History*
- *Innovative Instruments*

### **Materials**

- Access to online resources for research
- Drawing paper
- Pencils, erasers, rulers, and other drawing tools

### **Maker Space**

A maker space is an area outfitted with tools and materials for experimentation and exploration with a design purpose. In this lesson, the maker space is inspired by Scotty Barnhart's description of jazz, and the constant innovation within that musical form. In the maker space, students will innovate and transform recycled finds into instruments that produce sound. Developing a maker space, whether on a cart or in a devoted area of the art room, will prove continually useful. Consider hand tools and equipment such as glue guns, staple guns, hand drills, small saws, screwdrivers, a variety of fasteners, screws, nails, cords, twine, zip ties, awls, glues and tapes, and paints. Collect scrap materials including recycled scrap such as old CDs, pieces of wood, metal, plastic tubing, plastic parts, old toys that can be dismantled, construction materials, fabric and textile scraps, corks, clothespins, and similar materials.

Note: More materials are listed with the banjo instructions. For banjos, cardboard candy chocolate boxes, metal cookie tins, and wooden cigar boxes are all useful. There are examples online of each of these used to make banjos.



## INSTRUCTIONAL STRATEGIES

Students will take notes and make sketches (for later discussion) while viewing the *MUSIC* episode. After a class discussion of the video, students will use the worksheet *Musical History* to research facets of history presented in the program. Later, during studio time, students will use the worksheet *Innovative Instruments* to plan their own instruments and experiment with materials in the maker space.

(Video and discussion: two 45-minute periods)

### Before Viewing

Introduce the scope of the lesson to students, sharing the key concepts, critical questions, and objectives. You might choose to show the video in two sessions. Give students an overview of the *MUSIC* episode. Post the following themes on a poster or a board for students to record, while they take notes during viewing. Allow students to work in teams so they can cooperatively gather the information as they watch the episode on the DVD or online at [www.craftinamerica.org/episodes/music](http://www.craftinamerica.org/episodes/music)

They will be listening and looking for the following:

- References to the history and politics of instruments and music.
- Descriptions of musicians' personal connections to their instruments.
- Words and phrases used to describe how instrument make sounds.
- Hand decorating on instruments: Create quick sketches of these.

### After Viewing

Begin a discussion of the video. What did students find interesting? What questions do they have? Using students' notes, discuss the information they gathered about the listed categories. The following points and questions may be helpful.

- History and Politics: Ask students if they noted stories about the heritage of the ukulele, the banjo, and jazz music in America. What stories do the Kamakas tell about the ukulele? How did the ukulele get its name?

Scotty Barnhart states, "*Jazz was created by African Americans in this country who were not even looked upon as full human beings by the constitution. And here they are creating something that's timeless; that had no precedent in western art.*" From this quote, what can students determine about the place in society of African Americans in the 19th century? How does Barnhart define jazz music?

Musicologist William L. Ellis says, "*The African diaspora gave us the banjo in America. There are many prototypes of the banjo that come with the slave trade.*" What kinds of materials do you imagine were used to make these early banjos?

Joan Baez shares a story about being called a "communist." What is the dictionary definition of the word "communist?" What are the various social meanings of the word "communist?" Examine the lyrics from Joan Baez's songs, available at her website. Find a song that you believe has political content, and share the lyrics. What are the words that give you the sense of Baez' opinion on a particular issue? Joan Baez says that, "*People say that music changes the world. And it does. But the guitar and the songs have to be backed up by action...*" What are some changes Baez attempted and attempts to inspire with her music? Can you think of a popular song today that inspires political or social change?

- Musicians and Instruments: Scotty Barnhart says of his new trumpet, *"It will tell my life story."* How will it tell his story? In what way do his choice of figures to decorate his trumpet refer to his statement about the history of jazz?

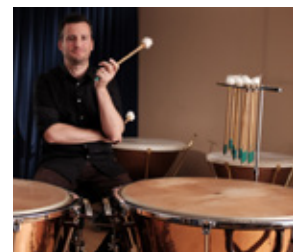
Barnhart also says of his Monette trumpet, *"Working with Dave's instruments, I'm not struggling with it, I'm not fighting it. This is how it's supposed to be. I just play, as if I'm breathing."* How does the special crafting of the trumpet make that possible?



Casey Kamaka claims that the well-made ukulele *"has soul"* and that it *"comes alive."* Jake Shimabukuro says of the ukuleles that *"They're sensitive...they respond to everything you do."* What do Kamaka's and Shimabukuro's statements say about the connection of musicians to their instruments? In what way is guitar designer Emily Meixell's statement similar? She says, *"Great guitars will bring songs out of you, and I think the emotional part of that is what makes Martins so loved."*

What is Joan Baez' favorite guitar, and why? What story does Joan Baez tell that proves her strong personal connection to her old Martin guitar? Do you think the hand crafting of the instruments plays a part in all of the musician's statements about them? If so, in what way?

- Sounds and Construction: Timpanist Joseph Pereira says, *"I have a ton of mallets, but the more refined you get in thinking about sounds, the more you want to dig deeper into getting the sound that you want... Trying to get the right sound is endless."* Do the student musicians in the class feel the same way? What other personal pursuits and art forms can you think of in which the process of perfecting might be described as "endless?" Do you think Pereira enjoys that pursuit?



Pereira describes a timpanic sound as a *"big ringing dark sound."* Mallet maker Jason Ginter uses words such as *"articulate"* and *"bright"* to describe a particular kind of mallet on the timpani. Can you think of any music that fits these descriptions?

Emily Meixell says of guitar construction, *"If this x-brace is moved up, it's going to sound different. Even half an inch."* Casey Kamaka says of building a ukulele that *"as you lighten these braces up and you adjust the shapes of them, acoustically it starts to come alive."* Geoff Stelling describes checking a finished banjo: *"I have to tell if the neck angle is correct...the bridge position has to be within a thousandth of an inch. The string height has to be correct."* Meixell's, Kamaka's, and Stelling's comments are all about proportions in construction. Do they give you ideas do about how you might experiment with materials to make an instrument? What kinds of processes do you think will make a difference in the sounds?



- Decorations: Tony Ellis says of banjos that they are *"one of the most ornamented instruments. It's probably because of the old Dixieland bands, where they actually put lights inside the banjo to shine through the head... so the banjo became a really flashy instrument."* What other instrument decorations did you note, and how were they crafted? How does Rhiannon Giddens' banjo differ in appearance from the Stelling banjo? Why does she want this kind of banjo?

What iconic symbols will decorate Barnhart's trumpet? Who would you feature on an instrument? How would you symbolize that person?

## After Discussion: Investigation

(one or two 45 minute time periods)

### Worksheet: *Musical History*

*"American history's not all bad and it's not all good. You know, it's a mixture of things and that's what minstrelsy is." – Rhiannon Giddens*

The minstrel show in America is a complex history of racism and entertainment. However, Rhiannon Giddens values many of the minstrel show musical forms, particularly the extensive use of the banjo. But she is mindful of presenting the music with the history intact; of not "erasing" the tragedies of racism of which the minstrel shows were born and the racist beliefs which the shows actually celebrated. Wikipedia has an extensive entry on the 19th century popularity of minstrel shows and its various forms. Examine the information ahead of time, and print out (or use online) this resource with students. Allowing students to work in groups will be helpful, so they may discuss their responses.

Introduce students to the topic by asking what they know about minstrel shows. Share some descriptions of minstrel shows. Share Giddens' quote about studying minstrelsy and uncovering its musical forms that,

*"The history keeps me there... the desire to recast some of this music in a modern light, and figure out how to do it without completely decontextualizing it so that the music is not completely divorced from the context from which it came."*

Help students to unpack that quote by defining decontextualize. Her song "Julie" (also available on YouTube) is the story of a white female slave owner who is mystified by the slave Julie's desire to leave her home. Have students listen to the song, and provide copies of the lyrics for study after listening. Place students in groups for completing the worksheets. Discuss the worksheet responses when students are finished.

### Discussion

Have students share their answers to the worksheet *Musical History* in a group discussion. As a segue into studio work, share and discuss the four sketch prompts that students will consider on the next worksheet: *Innovative Instruments*.

### Worksheet: *Innovative Instruments*

Students will brainstorm using the worksheet, followed by three or four 45-minute periods for studio exploration in the maker space.



## Studio Production

(four 45-minute class periods)



*"The soundboard is the main component... You still need the strength, but you still need the flexibility for the vibration to be able to traverse across the top. But as you lighten these braces up and you adjust the shapes of them up, acoustically it starts to come alive."*

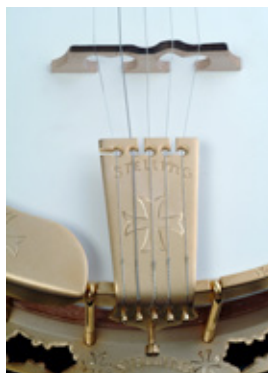
– Casey Kamaka, speaking about Kamaka ukuleles

As students prepare to have an inventive session of studio production, share Kamaka's quote, and remind them of the measuring and adjusting quotes from the film (some are listed above under "sounds and construction.") Students should start in the maker space to explore on their own or in teams, and to experiment with how to make sounds with different materials. How does the sound change when they move a part or stretch a string? Remind students to consider how they might decorate their inventions in aesthetically pleasing or meaningful ways. In a maker space, one important lesson is that failure is okay, and a path to discovery. Therefore, you may want to encourage students to embrace process over finished product. Such stories of process can also make an interesting video (see reflection activity.) Have students use the *Innovative Instruments* worksheet, throughout the process, and return to the worksheet to complete it when finished.

Students may also choose to make a box banjo using these instructions as a guide. This banjo can be made from a sturdy cardboard candy box, a wooden cigar box, or a metal cookie tin. The cardboard box is easiest to use for cutting the required openings, but the wood and metal versions are sturdier and produce a more resonant sound. General directions are given, but students should be encouraged to search online for variations on these homemade instruments, and to experiment with materials and measurements.

### Materials for Candy Box Banjo

- A cardboard candy box such as one that holds assorted chocolates; 9"x11"x2.5" (2-pound size) works well, but the smaller 1-pound size also works. These boxes can provide two banjo bases by using the lid and the bottom separately.
  - Piece of wood for the neck/fingerboard, 32"x2"x0.75"
  - Piece of wood for the bridge, 3"x1.75"x0.5"
- Note: both wood pieces can vary in size; these are guidelines.
- Nylon fishing line (40 lb. is sturdy and works well; anything below 20lb strength is too thin.)
  - 2 large screw eyes
  - 2 small nails
  - Hot glue gun
  - Hammer
  - small hand saw



Use the lid of the candy box. (The base can make a second banjo.) The neck will be threaded through the box. On the short end of the box lid, trace and cut the outline of the short end of the wood neck piece. This should be placed directly next to the top of the box. Cut the exit opening for the neck at the opposite end of the box lid. Thread the neck piece through the box. Hammer two small nails near the lower end of the neck, about 1 inch apart. The strings will be tied here. Saw two 0.25" deep slots for strings along one long edge of the bridge piece, about 1" apart. Twist the screw eyes into the upper neck piece, about 1" apart, 2 inches below the top edge.

Cut two long lengths of fishing line for strings. Tie each to a nail at the bottom of banjo. Tie each tightly to a screw eye. Place bridge on the banjo box, beneath the strings. Stand bridge upright, arrange the strings in the slots. Glue the bridge in place on the box (but do not glue the strings.) To tighten strings, twist the screw eyes. Banjo may now be played.

## CLOSING STRATEGIES

### Reflection

If possible, have students shoot video of their classmates playing the instruments and talking about how they created, or tried to create them. Students may plan their performances and film each other, using a similar style to the Craft in America program they have recently viewed.

Some suggestions for video prompts include:

- What is the instrument you created?
- How did you get the idea?
- Did anything go wrong in making it? What did you learn by making this?
- Can you explain the decorations on the instrument?
- What did you find most memorable about the *MUSIC* episode we watched? Did any of the musicians or instrument designers inspire you?

### Assessment

In discussions with the class and with individual students throughout the lesson; by examining the students' worksheets; by witnessing the students' experimentation and designing, and by viewing the reflection video, it should be evident that the student has:

- Delineated the connections between American music and American history and politics illustrated in the *MUSIC* episode.
- Researched and analyzed the emotional and physical connections musicians have to their instruments.
- Experimented and designed a musical instrument from collected and recycled loose parts.
- Used hand crafting techniques to refine the function and beauty of a musical instrument.

### Extensions

Students may decide to further refine their instruments, or try different constructions. There are many online sources devoted to homemade instruments, particularly banjos and guitars:

- [www.cigarboxnation.com](http://www.cigarboxnation.com)
- [www.homemade-guitars.com](http://www.homemade-guitars.com)

### Authors

The Educators Guide for *MUSIC* was developed by art educators Dr. Amy Albert Bloom and Ms. Dolores Eaton under the direction of Dr. Marilyn Stewart, Professor of Art Education, Kutztown University of Pennsylvania, Kutztown, PA.



## Worksheet: Musical History

Study the lyrics to the song, "Julie," and then answer the following questions with your group.

What happens in the song?

What are the two opposing points of view in the song?

How do the two women address each other? What does that tell us about their relationship?

How did the mistresses' beliefs allow her to justify owning Julie as a slave?

What kind of home did the mistress actually provide for Julie?

How does the historical moment portrayed allow Julie to finally speak? (What changed in America?)

Rhiannon Giddens says, "American history's not all bad and it's not all good. You know, it's a mixture of things, and that's what minstrelsy is." She also says of the 19th century, "It's a problematic time period for us to look back on, because we have not a very good way of talking about race in this country. We're not very good at it." Do you think Giddens' song gives us a helpful way of talking about race? If so, in what way?

Why do you think it is important to Giddens to tell the story of "Julie"? Who does Julie represent?

## Worksheet: Innovative Instruments

*"I just have these bamboo sticks, felt–piano felt, calfskins, metal bowls, I mean in some ways it is not that fair–but we're supposed to make music with it."*  
– Joseph Pereira

You will be making a musical instrument, with the option of making a banjo, from simple recycled materials. Time to brainstorm some prototype plans. Draw and label sketches to meet the following themes:

- an instrument that refers to an era or an event in history
- an instrument that is 'flashy'
- an instrument that has iconic symbols that represent you
- an instrument that has an old, antique version and a second newer version

After examining the maker parts available, sketch 3 ideas for an instrument you might actually make. Label the features. Do you think the instrument will "work?" If it doesn't work, could it still have some kind of value?

After construction:

- Sketch what you made (or tried to make.)
- Describe your standard for success for this project. Is your instrument a success?
- Think about the experience of inventing. Did you improvise as you worked?
- What did you learn from trying to make the instrument?
- Did you decorate your instrument? Why or why not?