Lesson on Audio Editing with Audacity

The lesson below is to help students gain a fundamental understanding of audio editing with Audacity. This lesson is intended to introduce teachers and students to the main features of Audacity to an extent that they can intuit more about the program on their own. It is designed so that there would be very little background knowledge required yet still employing a variety of important technological and language arts skills.

Audacity is a free sound editing program. If you would like Audacity it on your home computer, you can go to http://www.audacity.sourceforge.net and download it.

Background

You are producing a radio show about the California Gold Rush. Part of the show is to bring to life the actual words of the people who lived and participated in it. You base this particular segment on a letter from Lucius Fairchild, a young man from Madison, Wisconsin who left home at age 18 to strike it rich in California in 1849. The letter comes from Library of Congress's American Memories Project
(http://memory.loc.gov/ammem/).

Audio Content

You will record the narration (the text of the letter below) and then mix in sound effects and music. You will record and edit each of the three tracks (narration, sound effects, music) separately and then mix them together.

> February 12, 1850
> To J. C. Fairchild and Family,
> …I think we are in the poorest diggings in the country and we have made
> as much this winter as any store in Madison can make in a year. About
> four weeks ago the river rose very high and drove us on the highest part of
> the bar where we supposed there was no gold of any consequence, but to
> our surprise we found it the richest part so we all took our ground and
> went to work, since that it has not rained and we have all done well. Ed &
> I have taken out over *Twelve hundred dollars* or over 2 ounces a day
> which is good wages…
> I remain Your affectionate Friend,
> Son, & Brother
>
> From *California As I Saw It: First-Person Narratives of California's Early Years, 1849-1900.* The California Letters of Lucius Fairchild. Library of Congress's American Memories Project retrieved January 4, 2006 from http://memory.loc.gov/
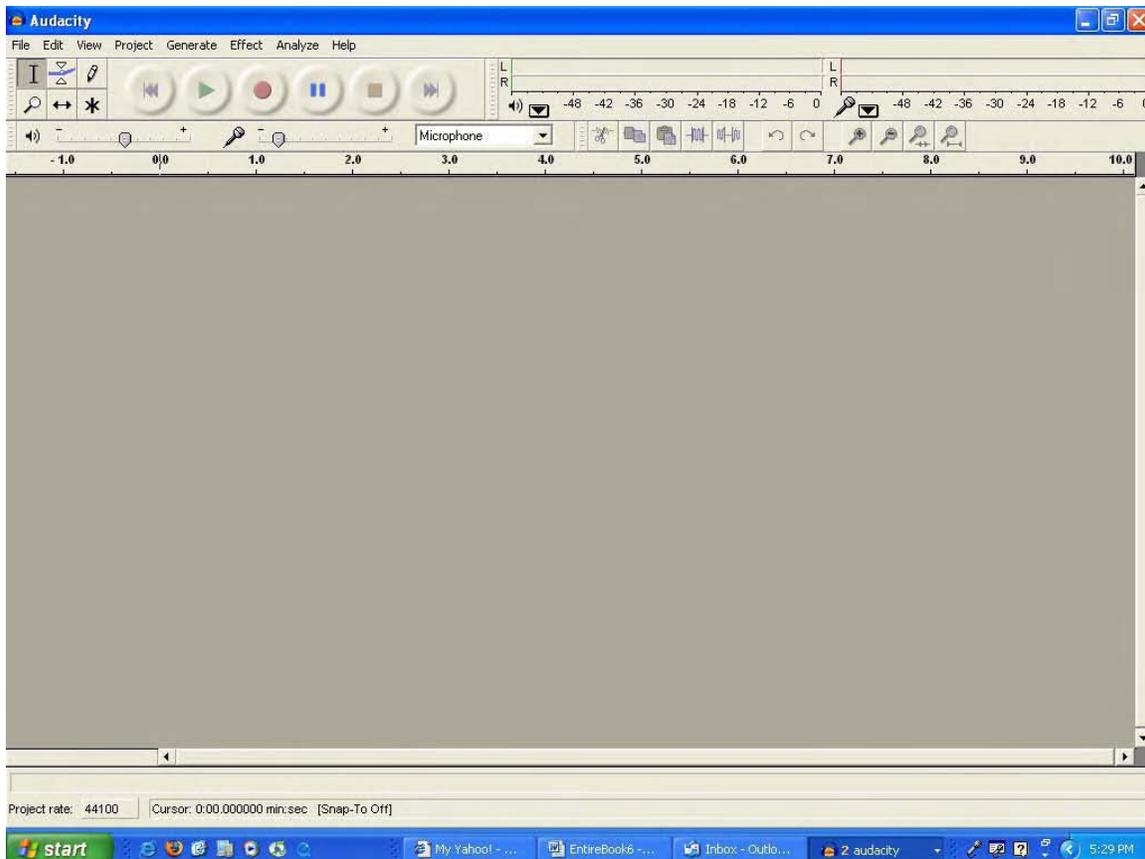
Launching Audacity

1. Make sure you have your headphones plugged in.
2. Make sure you have your microphone plugged in.
3. To start the Audacity Program, open your Network applications folder by clicking on the corresponding icon below found on your start bar.

4. Click on Multimedia and Choose Audacity
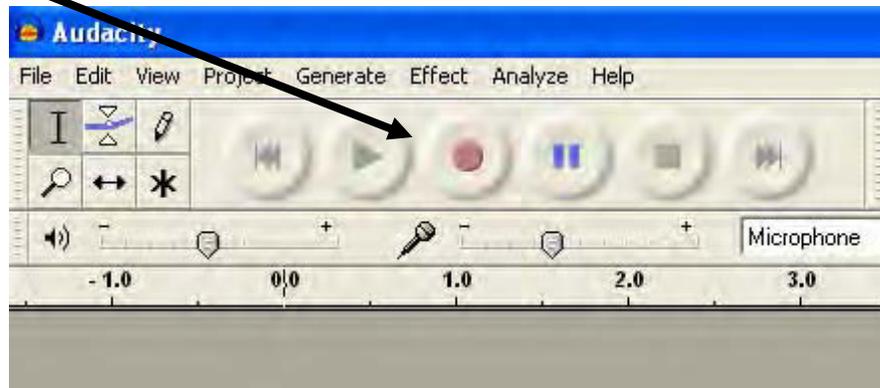5. Click Yes and OK to any Messages

Working with Audacity

Most of these steps can be done in any order, but for the purposes of initially learning Audacity, you should stick with these steps. **Your final product will be a narration of a primary source document accompanied by contemporary music and sound effects.** These components can form the basis of many engaging activities using audio editing. Open up Audacity and go to File/New to start a new project. You should have a blank screen like this.

Recording Original Audio

We will first create the narration.
If you have not already done so, get a microphone and plug it in to the front of your computer.
Click the record button and speak into the microphone.

You will read the excerpt from the letter. You can rehearse if desired.
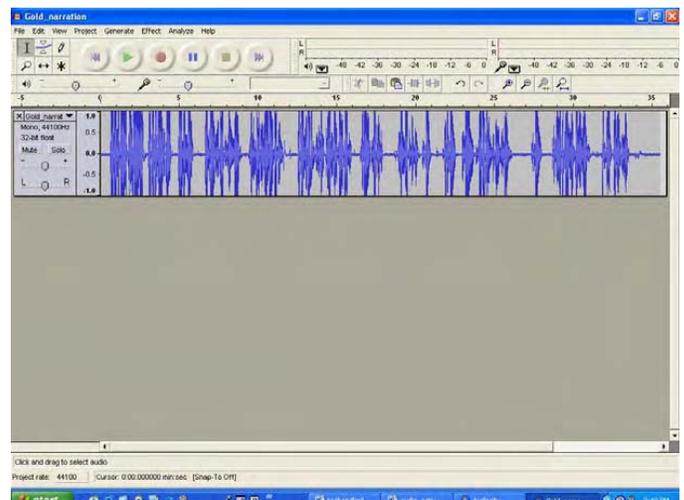
Text of Narration:

> February 12, 1850
> To J. C. Fairchild and Family,
> …I think we are in the poorest diggings in the country and we have made
> as much this winter as any store in Madison can make in a year. About
> four weeks ago the river rose very high and drove us on the highest part of
> the bar where we supposed there was no gold of any consequence, but to
> our surprise we found it the richest part so we all took our ground and
> went to work, since that it has not rained and we have all done well. Ed &
> I have taken out over *Twelve hundred dollars* or over 2 ounces a day
> which is good wages…
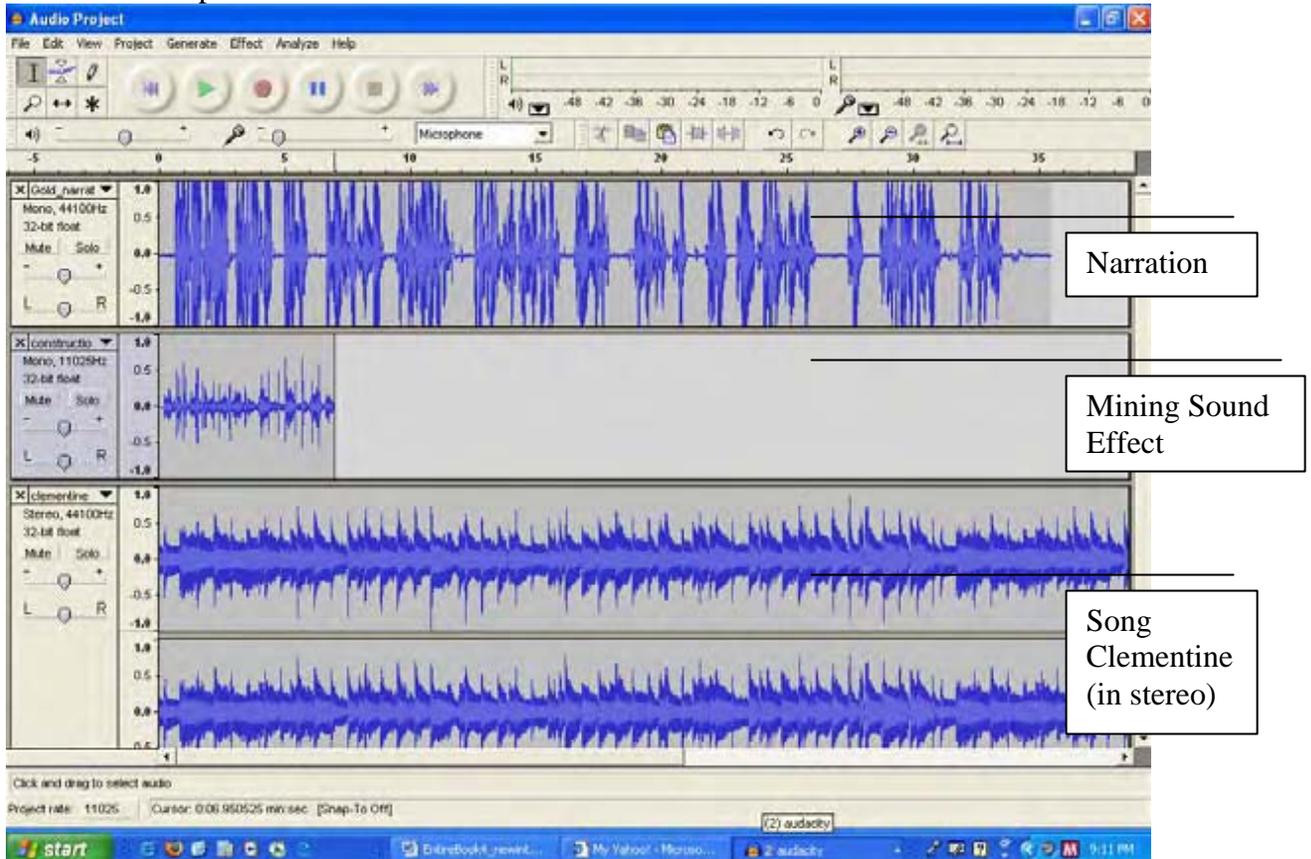> I remain Your affectionate Friend,
> Son, & Brother

You should get something that looks like this. This is your first track. If you have dead air before your narration (stage jitters or an eager trigger finger, don't worry. You will be able to edit it out).
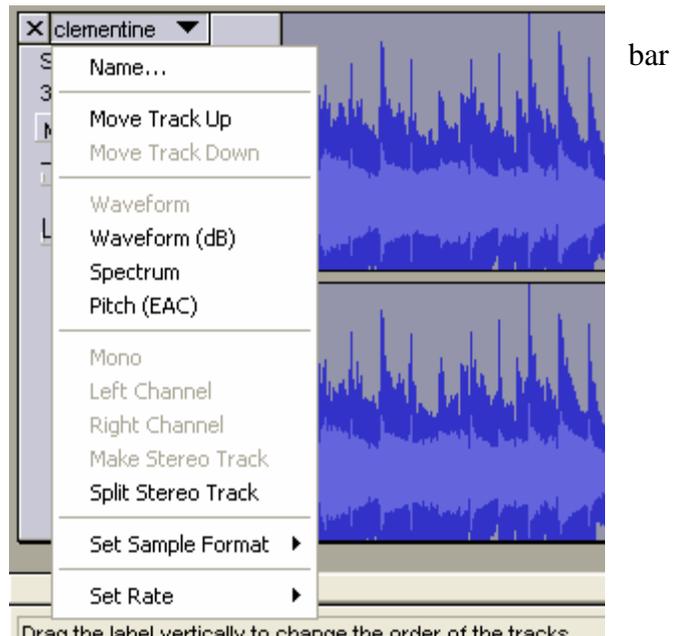
Importing Existing Audio

Import Clementine.mp3 and Mining.mp3 one at a time by going to Project/Import/Audio. You can find these files in the Digital Technology 2 share folder.

You can play a single track or combination of tracks by using the Mute and Solo buttons on each track's control panel.

Narration

Mining Sound Effect

Song Clementine (in stereo)

You can also move, rename, and do other actions to the tracks by clicking the top of the control panel.

Manipulating the Different Tracks

We will now manipulate the individual tracks. First, we will loop the mining sound effect so that it repeatedly plays throughout the recording. Second, we will arrange the music and sound effects so that they both start before the narration. Third, we will make the music and narration louder before the narration and lower during the narration.

To do any editing your clip must be stopped, not paused.

You will work a lot with the Selection and Time Shift Tools.

Selection Tool – The most important tool because it lets you select a portion or all of a track to cut, copy, add effects, etc.
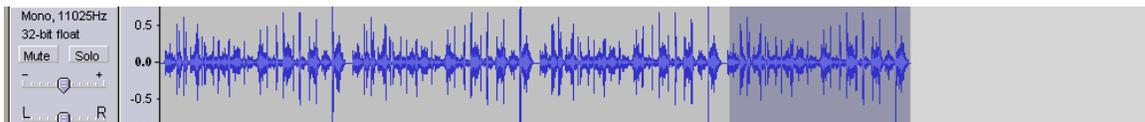
Time Shift Tool – Lets you move tracks around on the timeline.

Looping a Track

Looping a track involves replaying it over and over to seamlessly convey a continuous sound. To loop the mining track, select it using the selection tool, copy it, and then paste in on the track next to the original selection. Repeat until it goes about 10 seconds beyond the narration. The bottom of the toolbar has a timeline in seconds. You may have to go to View/Zoom Out to get a better view of all the tracks.
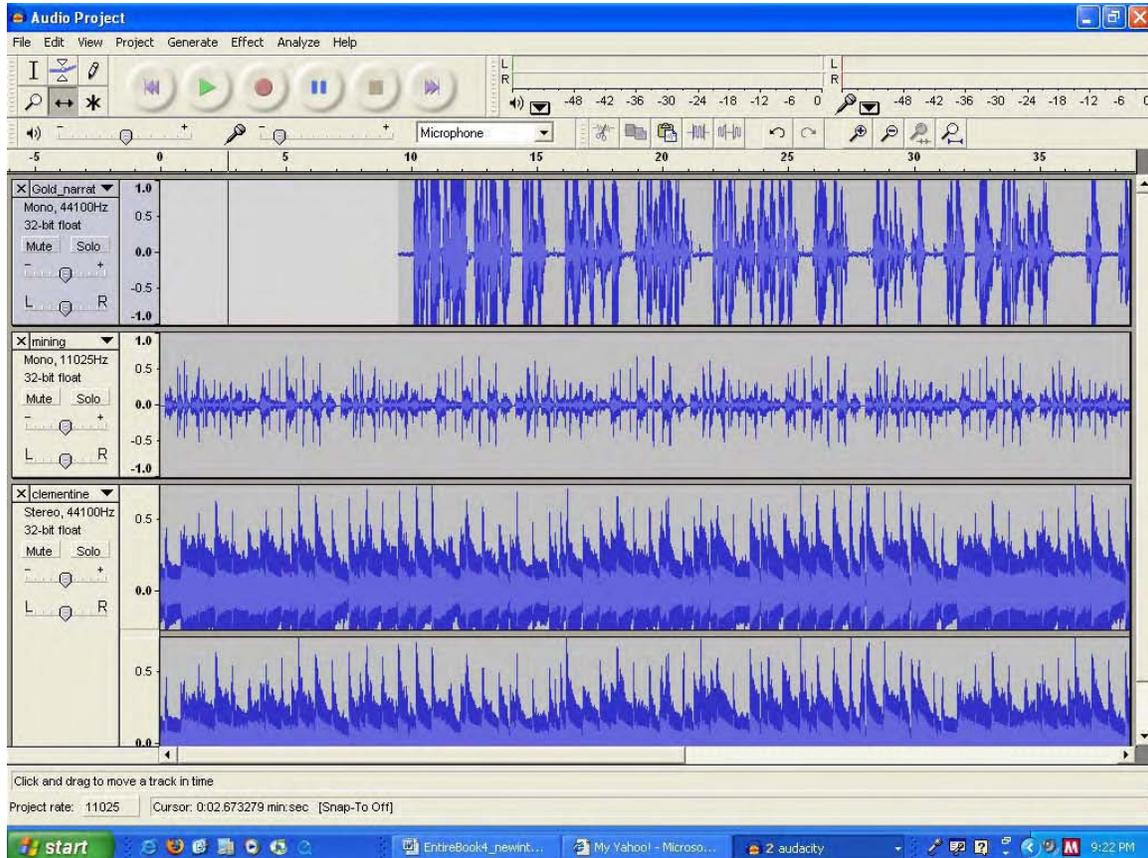

Above: Mining track highlighted

Above: Mining track pasted three times after original--the beginning of an audio loop.

Moving a Track

We will use the time shift tool to move the narration back 10 seconds. Make sure your recording is stopped. Hit the Time Shift Tool in the top right of your screen. Drag the narration back ten seconds.

Hit the play button on the top of the screen to hear your creation.
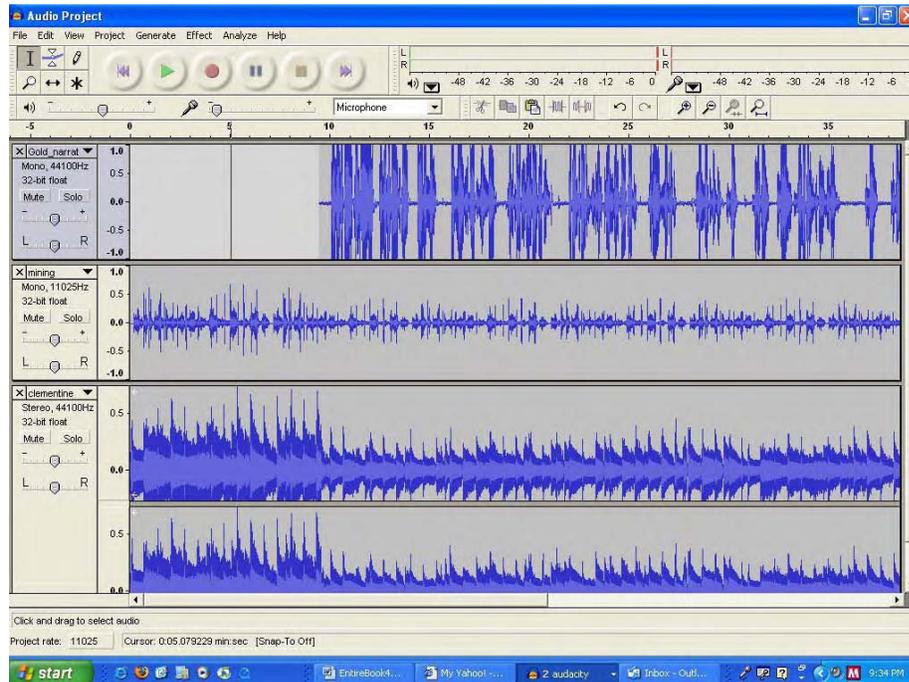
Lower the Volume of Selected Tracks

Finally, we are going to lower the volume on the mining sound effects and music when the narration is playing. We will lower the volume on the mining track first. Using the Select Tool, highlight the section of the mining track that is concurrent to the narration.

Then go to Effects, Amplify and lower the amplification by 2.5 decibels (-2.5 d.B). You will have to experiment with the exact levels based on the recording of your narration.

Repeat this with the Clementine track. Play the entire audio project. Make minor adjustments to taste. Your final project should look something like this.

Finally, Export as an MP3 (File/Export as MP3), and you have the finished file.

Other Resources

Audacity Tutorials (http://audacity.sourceforge.net/help/tutorials)
Audacity Book (http://audacitybook.org/html/)
Creative Commons (www.creativecommons.org)