Making Music

Contents

| Instruments |
|-------------------------|
| Harmonica |
| Clarinet |
| Make PVC Clarinet in A3 |
| Flute |
| Make a PVC Flute |
| Violin |
| Guitar |
| Drums |
| Keyboard |
| Kazoo |
| Ukulele |
| Home-made Instruments |
| Production |
| Digital Music DIY Now |
| Software |
| Amplifiers |
| Speakers |
| Recording |
| Recording Studio |
| On Air |
| Distribution |

"One good song with a message can bring a point more deeply to more people than a thousand rallies." - Phil Ochs

One of the most overreaching arms of Corpgov is the entertainment industry. It once was that a creative enough musician could tap into the unlimited power and greed of the king to outlaw performance of his work by any other artist, this copy-right included a bribe to the king or a royalty to make the deal interesting to the king. The framers of the US constitution saw a role for limited copyright and patent that would encourage people to create new works for the purpose of earning a living by giving them a monopoly for a few years on the works produced, a right that could be sold for cash up front to someone else.

Today with the power of massive CorpGov our fascist system of business to government entanglement, large mega corporations like Disney were able to find favor with the US congressmen with promises of cash for the election arms race if they would kindly extend the length of copyright to 70 years after the death of the artist. They had to keep the mouse in prison for fear that derivative works might be made from him similar to what Disney does with stories like *The Little Mermaid*, *Beauty and the Beast*, *Robin Hood* or *The Jungle Book*, all of which are based on Public Domain works.

In a world where we boycott the industrial evil or when copyright is no more we must make our own music. Our limited budgets need a way to still make our art and distribute it. Music is a medium to convey a message that might not be received from print or public speeches.

Instruments

These portable musical instruments will help you tell a story, make some money, and entertain your friends, sometimes all at the same time. For the "classy" instruments more money can be made if you wear a nice suit or dress while performing. In times of great stress a skilled musician is in high demand even if availability of cash is scarce. Barter is good payment, food and bed topping the list. Conversely an out of tune instrument or lack of skill can grate on nerves even if the player is enjoying himself, so start out practicing in a secluded area.

Harmonica

The harmonica is the hobo's friend. Easily stashed in your pocket a harmonica played on a street corner with a cup out will often pay your expenses for the day. Look for a quality instrument and carry a spare in case you break a reed. Keep your harmonica working, mealtime and music time are separate, you don't need to get beer or cheese inside your reeds ruining the sound and causing corrosion, also try not to get spit inside your instrument. Only open up your harmonica when you must and even then have a clean, well lit, indoor surface to work on, there are tiny fragile parts which are easily lost or broken. If possible get a hard case to protect your harmonica, banging around in your pack is a good way to break of clog your instrument. There are sites on the internet and books which have tabs, a kind of sheet music, to make learning easy, some harmonicas are numbered to make using the tabs easier.

Clarinet

Lightweight wind instrument, the clarinet is an excellent accompaniment to a piano for plays and background mood music by itself. Most clarinets break down to several short pieces that will easily fit in your pack. Always carry several extra reeds.

Make PVC Clarinet in A3

You need:

- Alto sax reed
- 1/2 inch schedule 40 PVC pipe
- Hex cap screw (or whatever fine thread short machine screw you have)

Building:

- Cut a piece of pipe to 15 inches.
- Make the reed mouthpiece, saw or sand to fit the reed, do the final fitting by hand with sandpaper, alto sax reed seems to fit this pipe best. The slope of the pipe must be steep enough that the thickest part of the reed is right above the location for the screw, not the sloped part.

- Drill an angled hole for the reed screw into the pipe above the angle cut area of the pipe making sure that the screw hole is at an exact right angle to the reed.
- Enlarge the hole in the reed so the screw is not threading tight into it.
- Carefully thread the hex cap screw in.
- Try blowing the reed, if the reed just sticks down you need to reshape the pipe with sanding paper until you get the proper reed sound, about 1/32 inch gap is needed.
- Finger hole tuning is by carefully reaming the opening diameters, you either need to have a very good sense of tone or a tuning fork to make the right hole diameters. We will now need to remember our octave of Do,

Re, Me, Fa, So, La, Te, Do.

- With no holes try blowing, you want to hear a match to A3 Do, shorten the far end of the pipe until you get a correct tone.
- Now drill 1/8 in. holes at the following distances from the reed end of the clarinet in inches: Thumb(bottom) Do 7.54, Finger Holes Te 7.79, La 8.89, So 9.89, Fa 10.89, Me 11.89, Re 12.89
- Starting from the farthest holes tune each hole by carefully opening up the holes.
- Run a dowel through the pipe to clean out attached shavings as you work and carefully carve and sand the edges as you tune the holes so they are smooth

Patience is required or you will open the holes too wide and ruin the clarinet. If you like you can lightly sand and paint your clarinet flat black, or your favorite color but be careful over the holes as this might put it off tune.

Flute

Flute music gives a high pitch that carries for a long distance, useful for rallying the troops at a demonstration along with drums. Drum and flute hearkens back to revolutionary war days.

Make a PVC Flute

(Thanks Mark Shepard for un-copyrighting his design so we could edit it for this book) See Marks website for lots of smart advice on working with PVC safely, avoiding glue fumes, inhalation of PVC dust, and Gandhi.

http://www.markshep.com/

The plastic we're talking about is PVC (polyvinyl chloride), used for cold water supply, and its close cousin CPVC (chloro-polyvinyl chloride), for hot water. DO NOT use ABS pipe for flutes or gray PVC electrical conduit. Since there are no restrictions on the toxicity of the chemicals added to it avoid the conduit also because of its greater wall thickness, which will hurt octave tuning..

Following is the plan for a flute I designed in the summer of 1988. I call it the "Plumber's Pipe." It's in the key of G and plays two full octaves. Of course, you might have to modify the design, depending on materials available to you. (For basic principles of designing and tuning flutes, see my book Simple Flutes.)

The flute is made from 3/4 inch CPVC pipe, plus a standard end cap. The actual exact dimensions of the pipe are 7/8 inch outside diameter, 11/16 inch inside diameter, 3/32 inch wall thickness. The tube length, with the end cap off, is 15-9/16 inches. The wall thickness of the end cap too is 3/32 inch, for a total mouth-hole depth of 3/16 inch.

The chart shows the size of each hole and the distance from its center to the top of the flute tube—again, measured with the flute cap off. You can mark these distances on a piece of paper, a ruler, a dowel, or a length of pipe, then use this pattern to help place the holes on your pipe. Two holes are slightly offset as shown, for easier fingering.

A good trick is to use a plumbing pipe end cap—a standard part—as a combination stopper and lip plate. Glue it on with plastic pipe cement, then drill the mouth-hole through it. Apply the cement to the pipe surface only—not inside the cap—to avoid pushing the excess into the flute, where fumes can persist much longer, (also get the pipe flute players guide a free PDF http://www.markshep.com/flute/Pipe.pdf)

There is no copyright or patent on this design. Feel free to make as many as you like, and to sell them too!

^JmageTipeB.gif

Violin

Violins and fiddles are lightweight and their mellow sound is great for short gig's at pubs, coffee shops, and restaurants. Portability is the reason why nomads and those constantly forced to relocate like Roma, Jews, and Pavee are known for playing the violin. Learn to make a violin. http://www.centrum.is/hansi/construction.html

Guitar

A guitar with its powerful natural acoustic amplification works well for intimate performances or large groups.

Drums

Portable drums are readily available for traveling musicians, they are great for accompanying or solo work. A simple snare drum or wood blocks are excellent for working a few gigs while mobile.

Nothing says march on like a drum, if you are part of a demonstration and don't want your nice instrument damaged by the pigs just use your drum sticks and a plastic bucket, find buckets that have the tone you want by tapping everything.

Keyboard

If you are on the move a real piano is not an option unless it is already on site, a portable electronic keyboard can be plugged into a mixer and pumped out the amp during a performance. Roll up keyboards are considered by most to be inferior due to the bad tactile feedback although this is the most packable way to have a keyboard. If a keyboard has a MIDI or USB port that means it is ready to be used with a computer with the correct cable and software.

Kazoo

A very simple instrument that can be used for comic effect. If you can hum, you can play a kazoo.

Ukulele

The Ukulele is great fun to play, and is smaller than a guitar, thus easier to carry. It is also very easy to learn to play, especially on the road, and is an effective instrument to busk with offering better returns than a guitar simply because it looks different.

Some chords are available here: http://www.ezfolk.com/uke/chords/Many tabs are available here: http://www.ukulelehunt.com

Home-made Instruments

If times are truly tough, or you want to go Hardcore DIY, you can build your own instruments. This style is often called "Washboard" or "Skiffle" and often consists of one person playing a "regular" instrument like a guitar, accompanied by a junkyard full of homebrew instruments (See the Little Rascals/Our Gang short film "Mike Fright" for a great example [1] http://youtube.com/watch?v=FFnJa9Tlk0k). Here are links to information or inspiration on building your own instruments:

- http://launch.groups.yahoo.com/group/cookietinbanjo/ Cookie Tin Banjo Yahoo Group
- http://www.rhythmweb.com/homemade/ Homemade Percussion at Rhythmweb
- http://web.mac.com/bashthetrash/Wecome/Home Page.html Bash the Trash
- http://www.grannysstore.com/Wilderness Survival/flutesndrums.htm PVC Flutes
- http://www.simplespanishsongs.com/RECYCLED%20INSTRUMENTS.htm Recycled Instruments
- http://cigarboxguitars.com/ Scotty's Cigar Box Guitars Information and plans.
- http://www.cigarboxguitar.com/ CigarBoxGuitar.com

The following websites have since shut down, but have been archived at Internet Archive:

- Dan Bruner's Website Featuring plans for drums, flutes, panpipes and didjerido, all made from PVC or ABS.
- http://web.archive.org/web/*/://www.geocities.com/danielbruner/home.html
- Webpage of Dennis Havlena Featuring plans for various instruments made from scrap or easily obtainable materials.
- http://web.archive.org/web/*/://www.ehhs.cmich.edu/~dhavlena

You can also go to Instructables.com (http://www.instructables.com/) and search for "music" or "instruments".

Production

If you want to really pump music to a crowd or you wish to record and distribute the tools are now affordable to even garage bands, all that is needed is some skill in the trade.

Digital Music DIY Now

Download the e-book **Digital Music DIY Now** http://www.diynow.org/ - A guide to making a living making music out of your backpack, from anywhere, and everywhere. It is free under the CCL SA license (http://creativecommons.org/licenses/by-sa/2.0/): print it, edit it, give it away.

Software

There are many free open source options to mixing and recording software in addition to the non-free options.

- Audacity Audacity is a free, easy-to-use audio editor and recorder for Windows, Mac OS X, GNU/Linux, and other operating systems. You can use Audacity to record live audio, convert tapes and records into digital recordings or CDs, edit Ogg Vorbis, MP3, and WAV sound files, Cut, copy, splice, and mix sounds together, change the speed or pitch of a recording, and more! (http://audacity.sourceforge.net/)
- Ardour Ardour capabilities include: multichannel recording, non-linear, non-destructive region based editing with unlimited undo/redo, full automation support, a mixer whose capabilities rival high end hardware consoles, lots of plugins to warp, shift and shape your music, and controllable from hardware control surfaces at the same time as it syncs to timecode. (://ardour.org/)
- LMMS LMMS is a surprisingly sophisticated digital music production studio with a shallow learning curve which is very well suited for making music without any physical instruments or other music production software. That said, it will integrate well both with other music production programs and recordings or samples you might wish to use. (http://lmms.sourceforge.net/)
- VLC is a media player that supports almost all multimedia formats. It also allows you to easily create a music stream, which offers a great way to start up a Pirate Radio station! (http://www.videolan.org/vlc/)
- http://sound.condorow.net/ Sound and MIDI software for Linux

Amplifiers

In a mobile setting 12 volt amps might be used in place of expensive generators and standard hardware.

Speakers

A song that sounds great on a set of really nice, expensive studio monitors might sound like shit on a standard boombox. Conversely, a song that sounds superb might sound weak and boring on some nice speakers. When recording and mixing, be sure to listen to your mix through as many different and commonplace speakers as you can. A good idea, after mixing some tracks, is to burn a CD-R and listen to it through a portable cd player, a car stereo, some standard computer speakers, and of course iPOD earbuds. Know that if you plan on posting exclusively on the web, some people only listen to tunes through their hp brand 2 volt computer speakers. Especially be wary of the volume and tone of bass, cymbals, and high-end stuff like guitar solos or violins. Although it is a good idea to listen to the final product on high-quality headphones, many people have a tendency to allow far too much reverb to creep in if exclusively mixing with these.

Recording

Recording Studio

The acoustics and sound insulation of the recording studio are very important. While commercial studios cover all walls with sound-dampening foam, an acceptable home studio might be made by choosing a quiet room and covering the walls and ceiling with blankets or carpet to dampen reverb. Empty egg cartons taped or glued to the wall will break up and dissipate sound waves more effectively than standard flat walls. Old carpet, packing foam, couch cushions, old clothes, or even newspaper can act as effective sound insulation.

Dirty electricity can be a killer for most amplifiers, causing unwanted buzz during moments of silence. If you get this type of constant buzzing, look in RadioShack or other audiophile-type stores for power strips that offer the capability of "cleaning up" electricity.

Always be sure to safely store and lock up all of your equipment. Do not be too casual about letting people know about your space and equipment, as these spaces are prime for theft.

On Air

If you are feeling dangerous pipe a high quality feed over the internet with software like VLC (://www.videolan.org/) to your Guerrilla Radio station elsewhere in town as well as to internet users across the world. Keep the studio and transmitter operations separate as possible so the pigs won't confiscate your studio if they make a bust.

Distribution

The plastic and vinyl days are quickly ending, many bands release exclusively on MP3 or our free Ogg Vorbis format. Introduction onto the internet and sharing networks will get your music available but it helps to have prominent bloggers and reviewers mention your work so that people will know to look for your work. Wheatpasting and free public performance will increase interest in your work. You can also give away a few disks full of high quality mp3s of your work at performances.



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