Clint & Vera’s Native Flute Handbook

Second Edition

Course materials for participants of Native Flute Schools, Retreats, Workshops, and Gatherings facilitated by Clint and Vera

by Clint Goss and Vera Shanov

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Private electronic distribution

Not for sale or distribution

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Clint & Vera’s Music Workshops, Native Flute Schools, and Retreats
2015–2016

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Preface

This handbook is based on a collection of articles we have developed over the past several years, assembled and edited specifically as an aid to participants attending our workshops, retreats, and gatherings (Flute Haven Native Flute School, Flute Harvest Native Flute Retreat, Native Rhythms Flute School, etc). Each chapter is typically based on a separate article, so each of the chapters can be read independently. They are also designed to be read straight through, providing a graded, building-block approach.

Many people have contributed to this material, especially my co-authors on some of the chapters: Lynn Miller, Eric Miller, and Mary Knysh. Kathleen Joyce-Grendahl, in her role as editor for the INTERNATIONAL NATIVE AMERICAN FLUTE ASSOCIATION newsletter Voice of the Wind and the WORLD FLUTE SOCIETY newsletter Overtones, provided editorial input on a number of the articles. Additional material and input has been provided by Randy Brody, Cornell Kinderknecht, R. Carlos Nakai, James Oshinsky, and many others. Individual co-authors and contributors are noted at the footer of each chapter.

A great deal of the material is based on my training at the MUSIC FOR PEOPLE organization (www.MusicForPeople.org), which is the primary basis for the facilitation techniques that Vera and I use in Native Flute workshops.

We hope you find this material useful!

First Edition

The first edition of this handbook – 190 pages in length – was individually printed, bound, and privately distributed to participants of our music workshops in 2014. This was rather laborious and environmentally unfriendly. However, since this first edition of the book contained some elements that were only distributable under fair-use settings, a digital version was not an option.

Second Edition

In 2015, we removed copyright-restricted content so that a digital distribution was feasible. The document was overhauled to reduce the size of the PDF distribution (70 MB to under 6.7 MB), provide clickable links to web sites and a table of contents outline in Acrobat Reader, and to use fonts that are licensed for distribution. The content was also substantially updated to make corrections, add information on our workshop schedule, and include 14 new chapters based on articles written over the last year, which brought the PDF distribution size to 7.8 MB.

This second edition comprises 252 pages in the digital release. Note that this document still retains aspects of the printed version: offset left and right pages as well as blank pages to achieve the proper pagination for duplex printing.
Accessing the Content

The Second Edition of the Native Flute Handbook can be read by version 6.0 or later of Adobe Acrobat Reader and related products. This standard was released in July of 2003, so most up-to-date computer systems should be able to access this content.

You can click on any of the hypertext links in this document to access related content, including web pages, audio recordings, and other related PDF documents.

The content of this handbook will likely change from time to time. Different editions of this handbook may contain substantially different content. For these reasons, rather than distributing copies of this electronic file, please access the latest version at:

http://www.FluteHaven.com/nfh.htm or

This material is for your own personal use. Please do not make copies of this material or distribute it in any form.

— Clint Goss and Vera Shanov
September 26, 2015

Citations

Although this handbook is designed to be practical rather than academic, some of the chapters cite references and external sources. An example of a citation in the body of the text is [Author 2014]. You can find the details of the citations in a chapter at the end of that chapter. Where possible, a related web site is listed.

Most of the cited works are also listed in the extensive reference section on Flutopedia. To browse the list of references on Flutopedia, see: http://www.Flutopedia.com/references.htm.

Typography

We wanted to make reading this handbook as easy and enjoyable as possible, so we put some research and effort into layout and selection of typefaces.

The body text of the first edition of this handbook was set in Adobe Garamond Pro, named for the 16th century French type designer Claude Garamond. This version of the typeface was designed for Adobe by Robert Slimbach. This font was not available for distribution, so Times New Roman is used for the body text as of the Second Edition.
Titles of publications and published material are written in italics, boldface is used for emphasis, and organizations are shown in smallcaps.

Other fonts used in this handbook are:

**Chianti BT** (typically in a bold-italic style) is used for most titles and headers. It was designed in 1991 by Dennis Pasternak of Bitstream to provide a humanist san-serif font of high readability.

**Gill Sans MT** is used for Internet addresses. The typeface was developed in the 1920s by Eric Gill. This version was crafted in the early 1990s by Monotype.

**Tekton Pro** was used in the First Edition for items written in a drum or spoken language, such as “TaKaDiMi Sis Boom Bah – ”. It was designed as an informal typeface for architectural graphics and building construction. It was designed in 1989 by David Siegel of Adobe, based on the hand-lettering of Francis D.K. Ching, a Seattle-based architect and noted author on design and drawing. This font was not available for distribution, so Chianti BT is used for these elements as of the Second Edition.

The fonts used for finger diagrams such as and are the NAFTracks series of fonts. They are available on Flutopedia at [http://www.Flutopedia.com/fonts.htm](http://www.Flutopedia.com/fonts.htm).
Part 1 –

Flute Playing
This is a wonderful technique that you can use as a warm-up, if you are developing a new song, or if you would like to invite people at a flute circle to “musically” introduce themselves:

Take a reasonably full breath and exhale into the flute, playing a melody for the duration of your breath.

When you try the exercise for the first time, you might find that you tend to “run out of breath”. The goal is not to squeeze every last drop of breath out of your system, but to end the phrase when most of your breath is expired and you can comfortably relax and let your lungs naturally start to re-expand.

After a while, you get to sense the duration of your breath, and build complete phrases to fit within that duration. For me, this is the first lesson in “song composition” … the repeated, deep practice of playing within our breath-span.

The real challenge is, of course, to disconnect your brain. The more we try to think about what we're going to play, the further we get from playing from the heart.

In flute circles or workshops, we usually develop this exercise as a group by building up from the very basics:

- Starting from taking full breaths and simply exhaling steadily,
- Moving on to making an “ocean” sound in the throat during the exhale,
- Then adding some soft vocalizations,
- Exhaling into the flute on a single, long steady tone.
- And finally, “moving the fingers” – playing a melody of any sort within the span of that one breath.

In addition to the value of simply playing one-breath solos, they also become building blocks for a lot of other exercises. They can be the basis for playing duets as call and response – each person is playing one-breath solos. If you're working on structured songs in AABA song form -- Simply play a one-breath solo,

This chapter was written by Clint Goss. A similar article appeared in *Clint & Vera’s Flute Newsletter*, October 2013.
repeat it, play something else (the “B”) and then play the first one-breath solo again.

Finally, there's another benefit if you're in leading a flute circle: If you'd like everyone to play a short piece in turn, you could ask for a one-breath solo (or even “two one-breath solos”), putting an implicit time limit on the solos.
Long Tones

Here is a wonderful exercise that I learned on my flute path from Paul Butler, woodwind player extraordinaire: Long Tones. The practice is so simple and so perfect for Native Flutes:

- Pick any fingering. For novice players, I often suggest three holes closed, three holes open.
- Take a reasonably full breath.
- Breathe into the instrument for the full duration of your breath, working towards a smooth, even sound with no variation in volume.
- End the long tone when you are mostly, but not completely, out of breath. Try making a “round” ending to the note, so that it drops off smoothly and cleanly into silence.

The idea of long tone practice is simplicity: no vibrato, no fancy articulation or attacks, no change in volume. And at the end, try not to be gasping for air, but end the note while you still have a bit of air remaining and before there is any tension for you to begin the inhale.

If you have a choice of flutes to use for this exercise, pick a mid-range flute that is comfortable to hold in one hand. You might start this practice on a flute with a fair amount of back-pressure and progress to flutes with less back-pressure. (“Back-pressure” or “breath pressure” is how much pressure the player feels in their mouth from the flute).

While this exercise may sound simplistic, especially after you've been playing for a while, realize that many experienced and accomplished woodwind players use this as a core daily practice. It's also a great exercise to get out of the “trying to play lots of notes” syndrome and help us return to the mode where this instrument shines – long held notes.

This chapter was written by Clint Goss. A similar article appeared in Clint & Vera’s Flute Newsletter, November 2013.
**Reflected Sound**

One of the main goals of the long tone exercise is listening to your sound. To hear your long tones better, you might try standing in front of a wall so that the sound from the flute is reflected back to your ears. If the foot of the flute is almost touching the wall, you will get quite a bit of sound off the wall. However …

Be very careful not to hit the foot of the flute against the wall (or any other object) while you are playing!

… flute players have knocked out their front teeth!

After you have some experience hearing yourself clearly, try moving back a step or two and keep your focus on the sound coming from the wall. This is an adaptation of an exercise used by public speakers.

Over time, gradually move further and further from the wall, while keeping your focus on the reflected sound. If you can do this in a large hall such as a gymnasium, and auditorium, or some other cavernous space with a flat back wall, you can really enjoy the game!

The goal is to develop your projection of sound and focus of listening so that it always encompasses the entire space in front of you.
The Scale Song

The first goal of many novice flute players is to play the primary scale of the Native American flute cleanly and reliably. Simply the exercise of playing:

\[ \begin{array}{cccccccc}
1 & 3 & 4 & 5 & 7 & 8 & 7 & 5 \\
\end{array} \]

or

\[ \begin{array}{cccccccc}
1 & 3 & 4 & 5 & 7 & 8 & 7 & 5 \\
\end{array} \]

... in many different styles can be deeply rewarding.

However, going beyond playing the primary scale and moving towards improvising melodies is often a stumbling block. For some, the suggestion to “just play any notes in that scale, in any order” is enough to get them started. But for other players, this can be a daunting challenge.

This chapter provides some ideas for small steps that can be taken (or taught to students) in a progressive exercise on the path from the primary scale to creating improvised melodies.

The Scale Song

The scale song is a straightforward technique developed by Dock Green Silverhawk (shown above at Native Rhythms 2010, photo by Clint Goss) for creating songs on the primary scale. The game is simple:

Progress through the scale and repeat any notes you would like in your melody, as many times as you wish. However, you still have to progress “forward” through the scale – there’s no going backwards!

Audio Samples

The on-line version of this material has a set of audio examples of each of the techniques. If you would like to hear them while reading this

This chapter was written by Clint Goss. It is an adaptation of the Flutopedia web page From Scales to Songs at http://www.Flutopedia.com/from_scales_to_songs.htm.
chapter, visit the Flutopedia web page From Scales to Songs at 
http://Flutopedia.com/from_scales_to_songs.htm

**Changing Duration**
When you first play a scale song, hold each of the notes in the scale for the same length of time. Changing the duration of the notes you play – some short notes intermixed with longer held notes – is one of the easiest ways to add variety and interest, and is the beginnings of playing with rhythm.

Try playing a scale song with varying note durations as well as added rests – pauses between notes – of various durations.

**Adding Dynamics**
The term **dynamics** in music means the volume of a note or a section of played music. There are terms in classical music for a full range of dynamics, from very soft (pianissimo) through very loud (fortissimo).

Changing dynamics can add dramatically to the music you play – adding power to your musical statements and drawing people in to listen to a quiet passage. Try playing a scale song with the addition of dynamics.

**Changing Articulation**
Beginning and novice players often play each note with the same attack at the beginning of each note. Of course, there are many articulations that can be used, including connecting all the notes (legato), various attacks (Haaa attack, Taaa attack, and Kaaa attack), and ornaments such as double tonguing and triple tonguing.

To begin working with these articulations, try the primary scale several times using one of these articulations for every note of the scale.

Once you're comfortable with these articulations, try using them in combinations in the same scale – some connected legato notes, some articulated notes with Taaa or Kaaa attacks, and maybe even a double or triple tongue ornament.

And finally, try adding a mix of these ornaments to the scale song technique described above.

**Adding Rhythm**
If you are following along with the progression of this exercise, your might notice that your playing is starting to sound like a “real” song. However, if the duration of the notes is used haphazardly, there may be little sense of where the song is headed.

What's missing?
The changes in note duration in a typical song are organized into a rhythm that quickly becomes recognizable to the listener. Try playing a scale song that uses the durations of the notes in a more rhythmic style, with recognizable rhythmic motifs. You might try using a loose form of $A/B/A$ style, with an opening that is repeated at the end, and a somewhat different style in the middle for the “$B$” part.

**Changing Scales**

Another thing you can change is the underlying scale you are playing. The Native American flute has many scales that can be played (see the Scales section of Flutopedia). Experimenting with scale songs over these different scales is a great way to learn the scales as well as getting comfortable with playing music in them.

First, pick one of the exotic scales on this instrument and learn to play it up and down. Then try playing some scales songs in that new scale. As you get comfortable, try bringing in the other elements described so far: duration, dynamics, and articulation.

**Woven Scales**

The restrictions of the scale song (only moving forward through the scale in steps) may seem too limiting. If you would like to experiment with reversing directions, you can simply change directions of scale steps any time you wish.

**Steps and Leaps**

The main restriction of scale songs is to move the melody in steps – each note in the melody is followed by a neighboring note. Adding leaps to your melodies can add dramatic power and interest.
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Right in Tune

Standing on a grassy hillside in the Berkshires, I played the first notes on my first Native American Flute. Sun … breeze … birds … and that wonderful flute sound that captures us all …

Heaven.

After playing solo for a while, I went to a local flute circle gathering. The organizer provided a heartbeat rhythm on his buffalo drum, and we each played our flutes in turn. One pulse … one heartbeat … one intent … melody and rhythm together …

Resonant Heaven.

Later on, other musicians and instruments started showing up in my life. Guitar, piano, and cello players, all wanting to explore the combination of their sounds with the bag of Native Flutes I had now acquired. We sat down to jam and …

Cacophony!

More exactly: sometimes cacophony, sometimes heaven. Some flutes worked great with some instruments. Sometimes. We would play together in a small room and it might sound great. Playing the same combination of instruments in a larger space with more people listening … “not so good”.

What’s going on?? It wasn’t the key we were playing in … the experienced people I played with knew how to play their instruments in the minor key of whatever flute I played. It turned out to be the difference in tuning between my flute and their instrument. Some instruments such as guitars and cellos, could re-tune to my flute, but that was a huge hassle.

Being a jam-loving player, I wanted to maximize the Heaven, minimize the Cacophony. I also wanted to minimize the amount of re-tuning my friends had to do with

This chapter was written by Clint Goss. A similar article appeared in the November 2008 issue of Voice of the Wind, published by the INTERNATIONAL NATIVE AMERICAN FLUTE ASSOCIATION (INAFA). An on-line version is available on Flutopedia at http://www.Flutopedia.com/art_right_in_tune.htm.
every new flute I pulled out of the ever-bigger flute case I kept showing up with.

My first instinct was “this flute is out of tune”, but that did not ring true. The same flute-and-piano combination would sometimes be Heaven and sometimes Cacophony. It was clear that the same flute would sometime be in tune with the piano and sometimes have a wildly discordant tuning.

Over the years, I have learned that the most important musical instrument, by far, is our own ear. Listening deeply to our sound is a musical practice that has grown to include how our sound relates to the other sounds around us.

Playing in tune is a lifelong endeavor for all musicians. It is part of the game of constantly listening to our sound and its pitch relationship to the other sounds around us. Simply having a flute that is “concert-tuned” or which happened to be in tune yesterday is no guarantee of its tuning today, in this musical setting, in these weather conditions.

There are two big kinds of “in tune” questions related to Native Flutes:

- Is the flute in tune with itself?
- Is the flute in tune with some outside standard, such as another instrument or pitch meter?

**Playing Solo**

For a flute to be in tune with itself means that the intervals between the notes have a pleasing vibrational relationship. A flute that is in tune with itself will generally sound good to the ear when played solo. Since NAFs were traditionally played solo, sounding pleasing to the ear was the only tuning requirement for a good flute.

As we will explore below, being in tune with itself is as much a matter of the way we play the flute as how the flute maker tuned the flute.

With the arrival of electronic pitch meters, flute players began looking to an outside source to tell them if a flute was in tune. This has several pitfalls:

1. We play differently when we are standing over a hovering meter, watching it waver to and fro. One of the biggest things that affect the pitch of a note on the NAF is breath pressure. When we play freely, a particular player will often emphasize higher or lower notes with more breath pressure. When we stand over a pitch meter, that emphasis tends to change dramatically, changing the tuning of each note.

2. Pitch meters are typically based on a system of tuning called Equal Temperament, which has some compromises and generally does not yield the best sounding instruments.

This second point is a big one. Many system of tuning were developed, beginning with Pythagoras and the ancient Greeks, where the notes sounded in tune with each other. However, all these systems had the flaw that the frequency relationship between neighboring notes changed from one note to the next. This meant that you could not transpose a melody to another key without retuning the instrument. Many cumbersome solutions were tried, such as harpsichords with 5 sets of keyboards, each tuned to a different key.

Equal Temperament is a way of tuning the 12 notes in our scale that came into wide use over the last 500 years, beating out many other possibilities. The reason for its predominance is primarily that the intervals between adjacent notes have the same ratio between their frequencies. That meant that music could be transposed from one key to another without retuning the instrument to the new key.

The compromise is that each of the intervals between notes in our 12-tone scale is out of tune from the perfectly sounding interval. In some cases the compromise is slight, but in other cases the note is as much as fifteen percent out
of tune. The problem is particularly severe with the interval of the minor third, which is the first interval between the bottom two notes on typical Native Flutes.

For more information on this issue, as well as some graphic and sound samples of different tunings, see the Wikipedia entries for “Just Intonation”. Since each Native Flute tends to be played in one or a very few keys, it is an ideal instrument to be tuned to the more consonant “just intoned” tuning rather than equal temperament.

The bottom line, for me, is to go back to the question “how does the flute sound to me”. I play all the intervals and many songs on a flute, and try to subjectively determine how I like the tuning of the flute.

The Cents of Tuning

Most electronic pitch meters have a small microphone and a moving needle that shows the pitch of a steady tone. The needle typically points straight up when a tone is in tune, to the left when the tone is flat, and to the right when it is sharp.

It is customary to divide the range of pitches from one note to the next higher note into 100 “cents”. You can think of each cent as one percent of the way between a note and the next higher note.

Playing With Others

When we begin to play with other instruments or play over recorded backing tracks, a whole other world of tuning issues and questions opens up. When you hear a native flute against other instruments, even a 10 or 15 cent difference between the flute and the other instruments can be very noticeable, and a 30 cent difference will often be blaring.

If the flute is in tune with itself, that's a great starting point, because the whole flute tends to go sharp or flat in response to a number of factors:

1. Breath Pressure

If we increase breath pressure, the pitch of the notes gets sharper. The sound also gets louder. If you play a flute softly in front of a pitch meter and the meter registers the notes in tune, that flute will only stay in tune with the pitch meter if you continue to play softly. If you then start playing with a piano or a backing track, chances are you will need to blow harder to play louder and match volume with the other sounds. Your flute will get sharp and sound out of tune.

Another issue is that each player varies their breath pressure differently as they play up and down the scale. Some flutes are tuned so that they sound best when you blow harder on the higher notes. Others require a more even breath pressure across the scale. So, whether a flute is in tune with itself depends substantially on the playing style of the player. A flute that, for you, is in tune with itself may not be in tune for another player.

I have a gorgeous flute that is, for me, in tune with itself, but is typically very flat on the pitch meter when I play it at home. When I play with my riff-loving, groove jamming piano friend, I've really got to blow it to be heard … and then it often sounds perfectly in tune!

2. Temperature

Every instrument reacts differently to temperature. Most can be retuned with more or less difficulty, but most Native Flutes cannot.

Our notes are generated from vibrating columns of air. As that air gets warmer, it becomes less dense and sound travels faster. It turns out that the pitch of a note that we hear from a flute increases when sound travels faster.

Our flutes get sharper as the temperature inside the flute rises.

How much sharper? Standard physics formulas published by Owen Cramer ([Cramer 1993])
tell us that pitch rises about 17 cents with a 10°F rise in temperature. That amount of pitch change would be noticeable to most listeners when we play with other instruments.

Have you ever noticed a performer blow into the finger holes of the flute before they play a song? This creates a nice, whooshing, wind-texture, but it also has the effect of warming up the air inside the flute. The air temperature rises from room temperature inside the flute in the space of a 3 minute song, and this is one way to pre-warm the flute before playing and keep it at a more even temperature.

3. Humidity

Increased humidity has the same effect on NAFs as increased temperature, since humid air is less dense than dry air. However, the effect is modest … I have been told that this amounts to an increase of 7 cents from 0% to 100% relative humidity.

4. Position of the Block

This is the one straightforward adjustment that NAF players have for pitch.

As the block (bird, totem, fetish) on top of the NAF is moved up the body (toward the mouth end of the flute), the flute gets sharper. Moving the block down the body makes the flute flatter. These movements of the block are similar to changing the overall length of the sound chamber.

However, moving the block more than a small fraction of an inch has dramatic effects on sound quality. Try moving your block up and down your flute while holding a single note. It can be done with one hand while covering some of the upper holes on the flute with the other hand. Listen deeply to the sound as it changes. When does it become more breathy? More reed-like?

Also, move the block down the body and see how it affects the flute’s tendency to overblow into the upper register. Each flute reacts differently to changes in the position of the block, and you need to experiment with each flute to find the sweet spot.

Another possibility is to actually change the block. Some flutes have blocks that are designed to be rotated 180° - one side has a flat face and the other side has a chimney (i.e. with side “wings”). This can produce a dramatic pitch change, as well as a change in the sound of the flute. See if you have any flutes where the block can be easily rotated and give it a try.

Yet another innovation, found in both traditional and modern NAFs, is a movable splitting edge. The splitting edge is the sharp edge at the foot-end of the sound hole that actually creates the vibrating air column when you breathe into the flute. The effect of moving the splitting edge is also dramatic.

And finally, there are flute designs that allow you to change the length of the flute. This usually takes the form of a two-part flute with a fitting that can be adjusted, as is common in orchestral instruments such as the silver flute or clarinet.

Back to the Player

All this talk of technical issues makes our head spin. As players, we want to just go out and play, play, play. Of course, our ears are the most important aspect of our playing. And it is our ears that tell us when we are in tune with other instruments.

A wonderful exercise is to learn to listen deeply to our sound, and to come to know the sound of “sharp” and “flat” in relation to another sound. This is most easily done when playing against a steady drone sound, such as a shruti box or a didgeridoo. You can also experiment with a double flute (a “drone flute”), moving the position of each block independently or trying to adjust breath pressure of one side verses the other.

Once you know by ear the sound of “sharp” and “flat”, this chapter has described a number of
techniques to adjust your playing to be in tune with the sounds around. In addition, vibrato can be used to effectively mask some tuning issues between instruments if the span of your vibrato is greater than the error between the instruments. If you can do that, then you can taper off the vibrato and slide into pitch with the other instrument. Some find the vibrato of Native Flutes is wider than most other instruments, and this allows us to dance around the other instruments.

Of course, when we are playing solo, many of these tuning issues are academic. If the flute is in tune with itself, to our own ear, for our style of playing on that flute, that is really all that matters. Then you can go back and just … Play, Play, PLAY!

References

A surprising number of us play in pain. That's one of the big lessons from the Ergonomics Study we've carried out in 2014.

I finished up the detailed analysis and posted it in a paper oriented toward researchers. It's rather lengthy and dense (but does have a cool photo of Randy “Windtalker” Motz shown at the right). If you're interested, you can access the paper as a pdf file:


What does the Ergonomics Study mean for the flute community? Here's what I think are the big lessons:

- Physical discomfort was experienced by 47-64% of players at least some of the time.
- Over 10% of players reported “moderate” physical discomfort on an average basis.
- Females report significantly higher physical discomfort than males.
- Females also reported having played Native American flutes for less time than males, but have a faster rate of progress (based on self-assessment of “level”).
- It is likely that physical discomfort causes some players to abandon the instrument.
- Playing Native American flute does appear to cause players to be able to stretch their hands wider.

There is also a lot of information in the full paper about the characteristics and demographics of our flute community – check it out if you're interested in the full paper in PDF format at the link above.

**Thoughts**

The fact that so many of us play in pain strikes me as odd. In the world of orchestral wind instruments, injuries and playing in pain happen frequently. However, orchestral instruments have a dramatically different set of priorities than Native flutes.

This chapter was written by Clint Goss. A similar article appeared in the February 2015 edition of *Clint & Vera’s Flute Newsletter*.
“Musical instruments are hardly designed to be ‘friendly’; rather, they are designed to achieve the best fit with a highly skilled human physiology”

(Nicola Bernardini. The Role of Physical Impedance Matching in Music Playing, 2010)

In the world of Native American flutes, we have the ideal situation for minimizing physical discomfort: a community of players focused on music for personal enjoyment, instruments that are comparatively malleable in their design, and a large population of flute makers who are well set up to address issues of comfort in their flute designs.

I believe that we, as a community, have a real opportunity to fix this problem! If we take the mantra that:

“No Pain, We Gain”

… we can work towards flutes that are comfortable, improve our playing, reduce repetitive strain injuries, and help to keep people playing Native American flutes for a longer time.

**Predicting Flute Comfort**

One of the goals of the study was to develop a system where a flute maker could craft a comfortable flute “long distance”. The idea was to find some straightforward measurements that would predict the limits of a comfortable flute. We used reported measurements, direct measurements of arm span, and photographs of the hands of flute players spread out on a paper grid that I designed for the study.

The results of that part of the study were disappointing. I pressed a lot of computer power into service to find any combination of measurements that predicted the comfort of a flute, and came up with a formula that was “pretty good” but not reliable for flute crafting. Awwwww well!

**Ergonomics on Flutopedia**

Flutopedia now has a page that describes some of the aspects of ergonomics. The page is not based on the research study, but on my own direct experience and the advice of others.

If you would like to improve you ergonomic fluting, this Flutopedia page on Ergonomics may help:

http://www.flutopedia.com/ergo.htm
Rhythm is a wonderful tool in flute gatherings – enhancing the music, helping flute players find new melodies, and providing group cohesion. However, it can also be met with resistance. That resistance is often voiced by the phrase:

“I don’t have rhythm”

Vera and I have heard this at so many workshops and flute circles. Maybe you were told that as a child, maybe you were intimidated by someone with more rhythmic experience. But, wherever it came from, unless you have a traumatic brain injury or some extremely rare neurological condition ... it simply is not true!

There are two sides to the rhythm connection:

**Playing in Rhythm**: playing a song that has rhythm in it, and

**Playing with Rhythm**: playing along with an external rhythm that other musicians have established.

Our experience tells us that players progress faster if they first work on Playing in Rhythm first before moving to Playing with Rhythm.

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**Playing in Rhythm**

Walk around a space that has little or no furniture. Walk slowly, deliberately, with a relaxed pace. Now add flute playing.

*Warning*: Be VERY careful never to hit the bottom of your flute while it is in your mouth – you can knock your teeth out, or worse!

Learning how to walk and play at the same time is all most people need to introduce rhythm into their playing.

Another approach: with the hand that you use to play the lower holes of the flute, tap your chest. Slowly, evenly, softly. Do it for a minute or two. Now keep going and try playing your flute with your other hand (just the top three holes). Improvise a two-note or a three-note or (if you get fancy) a four-note melody on top of your tapping.

Finally, you can try the Nursery Rhyme method: Speak/Sing a nursery rhyme such as

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This chapter was written by Clint Goss. A similar article appeared in the January 2014 edition of *Clint & Vera’s Flute Newsletter*. 
“Jack and Jill”. All nursery rhymes have simple, intrinsic rhythms. Now try playing just the rhythm portion of the nursery rhyme on your flute. You're not trying to play the notes of the nursery rhyme - just play any notes to the rhythm of the nursery rhyme and - bingo - your melody will gain an underlying rhythm.

**Playing with Rhythm**

Once you have gotten some experience playing in rhythm, it's time to try playing with an external rhythm. The easiest way is to work with a basic rhythm background track.

First find a rhythm background track that you like. The Recording Kiosk page on the Flute Haven site at [www.FluteHaven.com](http://www.FluteHaven.com) has a number of tracks you can use - either directly off the web site or for download. You might start with the Basic Beat, 4/4 time, 90 beats per minute and then work with the Cetacean track (which is a more fluid, live recording).

Here's a basic outline of how we coach people in workshops on playing with rhythm:

1. Simply listen to the rhythm track.
2. Begin moving your body to the rhythm.
3. Breathe along with the rhythm - slowly and evenly, in any way that works for you.
4. Now breathe into your flute. The fingers don't matter. You're playing long tones on any note you wish, breathing along with the rhythm.
5. Try changing notes on each long tone.
6. Gradually – very slowly – add some melodic interest to your playing.

The goal is always to keep on listening to the external rhythm. If you lose it - no problem! Just stop playing, center yourself on the rhythm, move and breathe with it, and go back to playing.

We can honestly say that we have never had a situation where a player was not able to make huge strides in playing rhythmically and playing with rhythm in a very short time.
Leaps

When we first begin creating melodies, they are typically stepwise melodies: each note in the melody is one step higher or lower in the scale than the previous note. Stepwise melodies minimize finger movement, sound familiar to the ear, and seem to nicely fit the Native American flute, especially in a contemplative or meditative mood.

A leap involves a larger melodic jump, and can create a dramatically different feel. Leaps are a great melodic tool when you want to call attention, change the feel, or provide contrast to a stepwise melody.

W. A. Mathieu provides a fantastic description of steps and leaps on a track of his two-CD set The Listening Book and the Musical Life. You can listen to this three-minute track by visiting the Flutopedia page http://www.Flutopedia.com/steps_and_leaps.htm (click the “Play” button on the first audio player). Here is a transcript of the spoken portions of the audio track:

"Understanding melody begins with a distinction between steps and leaps. Our scales have seven tones – no one knows why. They are named in alphabetical order according to a seven letter alphabet.

You step from a scale tone to an adjacent scale tone; You leap over a scale tone or over several ... [examples of a stepwise melody and a melody of mostly leaps]

If you try to sing both of them, an axiom will emerge: steps are easy, leaps are hard. This means that a stepwise melody sounds logical and naturally contoured, as if one could easily draw a line through the dots made by the notes. A leap, on the other hand, is a special event, which the ear singles out.

“That's one small step for [a] man; one giant leap for mankind.”

– Neil Armstrong 1930–2012

This chapter was written by Clint Goss. A similar article appeared in Clint & Vera’s Flute Newsletter, March 2014, together with content from Flutopedia.
A leap is a dramatic moment, a roughness to be made smooth by the surrounding stepwise motions, though not necessarily the less beautiful.

Corollary: Some leaps are harder than others. It is not especially difficult to hear an octave or a fifth. Sixths and sevenths are almost always more difficult.

Second Corollary: Leaps tend to get filled in. If you leap from C to F, the chances are great that the intervening E and D will soon appear.

My advice: Learn to improvise predominantly stepwise melodies, at first, passing time and gaining confidence in the stepwise flow. Bring in leaps gradually, as dramatic events, and notice how you back-fill what you leapt over. Appreciate how this simple distinction enables you to get around, to recognize the ridges and valleys of your own melodic country.

Songs and Leaps
To help players make a connection between songs that they know and leaps on the flute, I’ve developed two charts on the next two page.

The first of the two charts shows some popular songs where the first two notes of the song demonstrate a leap interval. It also shows the fingerings for getting that interval on the flute, from the all-holes-closed notes.

All the Leaps on the Flute
The second of the two charts shows all the leaps on the flute (without “overblowing”). It shows all the pairs of fingerings that produce the same intervals. They aren't the same notes, but the pairs of notes are the same distance apart, in terms of musical semitones, or relative frequencies.

Using Leaps
As with many new skills on the flute, we begin by practicing the basic mechanics of the technique. Getting multiple fingers to lift and fall accurately can take a few minutes a day for a week or two.

While trying this out, keep your ears open to the difference in sound between the leaps and stepwise playing. What emotion do they create? Is there a difference between ascending and descending leaps? Can you incorporate leaps into your ornaments?
Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning
developed by Clint Goss

**Intervals**

<table>
<thead>
<tr>
<th>Interval</th>
<th>Fingering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Octave</td>
<td></td>
</tr>
<tr>
<td>Perfect Fifth</td>
<td></td>
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<tr>
<td>Perfect Fourth</td>
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<td>Minor Third</td>
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<td>Major Seventh</td>
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<tr>
<td>Major Second</td>
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<tr>
<td>Minor Second</td>
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</tr>
</tbody>
</table>

This page shows leaps (intervals) on pentatonic minor tuned Native American flutes from the fundamental (all holes closed), together with popular songs that demonstrate the interval with the first two notes.

The second page shows additional fingering combinations for each of the intervals.

**A** The interval between the first and third notes of “Somewhere Over the Rainbow” are a major seventh.

**B** There is no definite interval from the fundamental for the minor and major second, so these intervals are done from the next higher fingering.

Other song examples: *Octave*: I'm Sing (zing in the rain); *Major Sixth*: It Came (upon the midnight clear); *Perfect Fifth*: (Scarborough Fair); *Perfect Fourth*: A-ma (zing Grace) & We Wish (you a merry christmas); *Major Third*: Morn-ing (has broken); *Minor Third down*: Hey Jude

From [www.Flutopedia.com](http://www.Flutopedia.com)  
Updated January 28, 2014
Intervals - six-hole Pentatonic Minor
Note Endings

Deep listening exercise: bring up your favorite solo flute track and listen to it. Now listen a second time and, with eyes closed, listen to the *endings* of each long-tone note.

What do you hear? A smooth ending? Maybe an extended drop-off in volume (and pitch)?

Now play a long-tone melody on your flute, paying attention to how you are ending the notes. If you have several flutes, you can compare flutes that have more and less breath pressure (or back pressure - the pressure you feel in your mouth when you play).

If you have the ability to easily record your playing, that can be a real asset in this exercise, because it allows you to focus on listening to your playing as a separate activity.

If you're like most flute players, as they gain experience, you pay a lot more attention to the beginning (the “attack”) of your notes. You also focus on the body of the note (especially when bringing in vibrato) and kind of lose interest at the end of the note, especially because there's another note coming up to focus on.

So what do you hear? Does the ending of the note sound “shaky” and hesitant? Maybe with some burbles or whistles after the intended end of the note? Does it improve on flutes with higher breath pressure or get worse?

I had this problem for many years before I was taught a very cool trick to make smooth note endings: the “air bleed trick”. Try this:

Press your lips against the back of your hand and apply some breath pressure. Now relax your lips around the sides, letting some of the air bleed out. Continue to relax fully and let all the air pressure escape. Practice this for a while until it becomes normal and natural, and you are just relaxing your lips in a controlled way to let the air escape.

Now try it on your flute: just play a simple long tone and relax your lips to let air bleed around the edges. Compared with the back of your hand, pulling off the air bleed on the flute may not be as easy because of the dramatically reduced breath pressure. However, in a few minutes, most players master the trick.

Now listen to the sound (or record yourself) when playing a long tone. Is it a smooth ending? *I hope so!*

This chapter was written by Clint Goss. A similar article appeared in *Clint & Vera’s Flute Newsletter*, December 2014.
**The Major Minor**

Try this experiment:

- play the lowest note on your flute - the note with all finger holes closed. Then …
- pick up the bottom-most finger. Then …
- pick up the next two fingers at the same time.

Those three notes make a chord. The sequence looks like this:

Get to know those three notes: Run them up and down, make a song out of them, and play with the intervals (that are really two small Leaps – see page 31).

Now we have a different three note chord, only slightly different in pitch and fingering, but a world apart in feel, emotion, and cultural connection.

Again, get to know those three notes: Run them up and down, make a song out of them.

The difference between these two chords is the dramatic split between “major” and “minor”. If someone asks about this (maybe in your flute circle) this Major/Minor is a great way to demonstrate the difference without delving into music theory.

For more on exploring and explaining music theory, see the *Music Theory Questions* chapter starting on page 167.

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This chapter was written by Clint Goss. A similar article appeared in *Clint & Vera’s Flute Newsletter*, January 2015.
What song is played the most on the Native American flute? It’s a song that I used to play (a lot!), and we still hear all the time at workshops. It goes like this:

note – note – “Oops, Sorry” – note –
note – note – “I’m Sorry” – note – note –
“Oh I’m so sorry, let me start over”

Playing Native American flutes is an act of faith – faith that the acoustics of the flute will once again work as we hope, and that a sound will magically appear when we apply the forces of will and intent and breath. But playing from the heart also involves the practice of “freedom from attachment”.

If we can avoid becoming attached to a particular, expected sound and come to accept the sound that the flute produces, we can go on a grand adventure of improvisation – a duet between our inputs to the instrument and the sonic outcomes. If we can learn to accept any sound that comes out, work with it, make it part of our song … that can lead us to amazing and genuine improvisations.

Jazz musicians often joke that “once is a mistake, play it twice and it’s a motif, play it three times and it’s Jazz”. I suspect that this is just a way of making light of a much deeper practice of accepting and crafting any sound that comes out into the song-of-the-moment.

So, we encourage players to learn to play through their perceived mistakes, then learn to embrace them and work with them to incorporate them into their songs. However, we never had a name for the “Oops, Sorry” song …

Last week I wound up in a jam session with 8 dulcimer players. Pretty cool! They had all the improvisation forms down: call-and-response, solo-over-ostinato, descending patterns, vamps and 12-chord blues, trading 8's and 4's, etc. Then, maybe 40 minutes into the session, somebody hit (what they thought was) a klunker. “Oops, sorry” … and the entire group stopped and roared in laughter. Apparently, the group had long-ago established a “No Oops” policy … and when somebody slipped they would all stop and actually give a name to the song.

So now there’s a name for the song that embodies this mental hiccup, this attachment to an expected sound, this departure from the good energy and life lessons that the flute can give us:

“I’m Sorry, So Sorry”
Vibrato

Vibrato – that subtle variation in breath pressure that seems to carry so much of the emotion of our playing – is one of the most important effects we have as flute players. This is the first part of a series of articles on developing and using vibrato.

Many of the techniques we use in our playing can be learned relatively quickly. With the right practice exercise, it might take only a few minutes a day for a week to “get it”. Our experience is that vibrato is not one of those techniques.

It took me a full year working at vibrato to get it, and it is still the area of my technique that gets the most focus.

Over the years, we have tried many workshop activities to help players “access their inner vibrato”. We have kept the ones that work best and now do three or four of these activities routinely for our participants. This article shares the first of those activities … the others will be in the newsletters in the months to follow.

Conducting Vibrato

Place your hand in front of you, palm facing your chest. When you listen to music, focus deep into the solo melody and listen to just the vibrato … and let the vibrato "conduct" directly into your hand. Allow your hand to vibrate back and forth - toward and away from your body - in exact beat to the vibrato.

To help in this exercise, here is a three minute sampler of music with interesting and dramatic vibrato. It is an MP3 of excerpts from historical and recent recordings that demonstrates how vibrato has changed over time.

Vibrato Sampler MP3

http://www.flutopedia.com/mp3/Vibrato_01_VibratoSampler_mix01.mp3

Here is what went into this sampler:

1. 1939. Marian Anderson – God Bless America at the Lincoln Memorial.

Now try this “vibrato conducting” technique on some of your favorite flute music!

This chapter was written by Clint Goss. A similar article appeared in Clint & Vera’s Flute Newsletter, April and May 2015.
**Belly Breath**

Now that you have experience conducting the vibrato of others with your hand, try it on your own breath:

Place your hand over your belly button and **push your hand forward with your belly**. Allow the air to come in as you do this.

Continue the normal cycle of breath, but focus on your belly and the imagery of pulling in air by pushing your belly button forward.

Now, on the exhales, close your lips to provide some resistance - as when you are playing a flute. This is the “back pressure” that many Native flutes provide. Your exhales should extend in length, as when playing your flute.

Finally, on the long exhales, begin saying “**Ha Ha Ha Ha ...**”. Focus on your hand as you do this - it should move in a rhythmic patterns. This should be similar to when you were conducting the vibrato of others.

**Depth**

One of the key aspects of vibrato is how much variation in pressure your belly provides. Experiment with making very slight and very dramatic variations in breath pressure as you say “**Ha Ha Ha Ha ...**” during the exhales.

**Speed**

Another thing you can control is how fast the vibrato cycles. This can be done independently of Depth.

Experiment with a slow and soft vibrato, a slow and deep vibrato, a fast and soft vibrato, and a fast and deep vibrato.

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**On the Floor**

If you find it comfortable, try this exercise laying down on the floor. Many people have an easier time of the belly fluctuations when they are laying down - you can feel your hand and belly moving more easily.

**On the Flute**

Now move your exhales to the flute. Keep one hand on your belly and close the top three finger holes on the flute.

Can you create a vibrato on your long-tone exhales?

Now think back to the exercise of conducting vibrato ... can you recall how the vibrato changed over the span of one note?

Can you hold a steady long tone, then bring in a soft and fast vibrato, and then slow down the vibrato and increase its depth?
Rhythmic Chirping

Rhythm and melody make a fantastic combination. If you have ever played flute with a percussionist, at a drum circle, or over one of the many rhythm background tracks, you have probably experienced an added dimension that even a basic rhythm can provide.

But what if you are playing solo?

This chapter describes a straightforward technique for playing rhythm on your flute, at the same time you play melody. You can hear the technique played on a wide range of flute recordings, including some of the older ethnographic recordings. However, I have never heard a definitive name for the technique, so I just call it “Rhythmic Chirping” or “Rhythmic Grace Notes”. You'll see why in a minute.

The Rhythm

While seated, place three fingers – the ones you use to cover the upper three finger holes – on your thigh. Now say the word “Chirp”. When you say “Chirp”, pick up your middle finger very briefly and place it back down. Your middle finger should be off your body no longer than it takes to say “Chirp”. Work with that exercise until it feels natural to lift your middle finger for the smallest miniscule fraction of a second.

Now start tapping your opposite foot at a slow tempo. Lift your middle finger on each tap of your foot.

Your flute has rhythm!

Melody

After playing rhythmic chirps for a while, try closing the next lower hole while playing the rhythmic chirps on the upper holes. Then try closing another hole and finally all three lower holes.

Can you ascend on the bottom three notes while playing rhythmic chirps?

Can you change bottom notes every eight chirps? Every four chirps?

Can you progress to a basic melody on the low finger holes while continuing with the rhythmic chirping on the upper three holes?

With a bit of practice, some songs begin to emerge …

Challenges

On some flutes, you might find a tendency to squeak, overblow, or jump into the second register, especially if you are playing the lowest

This chapter was written by Clint Goss. A similar article appeared in Clint & Vera’s Flute Newsletter, June 2015.
If that happens, try chirping using the top finger, or the top two fingers simultaneously.

What happens if you want to incorporate ♭ or ♭ on five-hole flutes into your melody? On most flutes, you can switch to rhythmic chirping just using the top hole.

Adding the melodic note ♭ (or ♭) presents even more challenges. I usually switch to very fast notes in the second register, but this is hard to keep up for more than a few chirps.

**FluteCasts**

While developing this newsletter article, we began to realize that this description would benefit from some audio and video examples. This began the development of the FluteCast series, distributed on YouTube.

You can go to:  
https://youtu.be/OHEDlesgMlg

… or skip forward to the next chapter to check out the full series of FluteCast videos being developed.

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**Rhythmic Chirping**

*Techniques for Playing Native American Flutes*

*Clint and Vera's FluteCast*

*June 2015*
Beginning in June 2015, we began developing a series of “FluteCast” videos to demonstrate techniques and described topics related to playing Native American flutes. These videos are released monthly via our Flute Newsletters and published on YouTube. Each video closed captioned for accessibility in English, Japanese, Spanish, and Russian.

The images at the right show the currently published and planned FluteCast topics.

You can access all currently published FluteCast videos by visiting our YouTube channel at:

http://www.YouTube.com/user/ClintGoss

… and clicking on any of the videos with the characteristic look shown at the right. You can also access a YouTube playlist listing all currently published FluteCasts by clicking on the [FluteCasts] link under [Playlists] on the left side of this page:

http://www.YouTube.com/user/ClintGoss
Why would anyone want to play a random sequence of notes in their melodies? Isn't a “good song” made with a carefully planned sequence of pitches?

If you are skeptical (like I was at first), search for a video on YouTube.com titled *What Pi Sounds Like* by Michael Blake.

It is basically a melody based on some element of chance or randomness. In the video Michael has shown that it can become a very interesting song!

But aside from making an “interesting song”, there are a lot of uses for these types of random melodies. Here are some examples:

**Play the Trees**

If you're ever stuck for a melody, look at a group of trees. Pick the topmost trees silhouetted against the sky and follow the height of the tops of the trees – using higher notes for the taller trees and the lowest notes for the shortest trees – your first “random melody”.

How long should you hold each note? Whatever inspires you.

For variety, feel free to add dynamics (loud/soft), articulation (tonguing) versus connected notes, different rhythms, or even different scales. Some of these techniques are outlined on the *The Scale Song* chapter on page 17.

**Play the People**

Giving a classroom presentation? Ask the people in the back row to stand up and play them (e.g. “play their heights”) like the exercise Play the Trees above.

**Alphabet Songs**

Once you're comfortable with turning random melodies into songs, try out some Alphabet Songs.

The video *What Pi Sounds Like* assigned pitches to digits, but most Alphabet Songs assign pitches to the letters of an alphabet. This opens up a whole set of possibilities, including creating personal songs from peoples’ names.

**History**

The idea of alphabet songs goes back to at least Johann Sebastian Bach (1685–1750), who used his own initials for the notes of the fugue “Before Thy Throne I Now Appear” on his deathbed on July 28, 1750. However, it might be far older and date back to Greek philosophers.
R. Carlos Nakai has said that Doug Holly was the first to use alphabet songs for Native American flutes. On the R. Carlos Nakai album Journeys (1986), the melody for the first track – Life is for Living – is an alphabet song on its own title.

The alphabet song technique has also been referred to as the “Fibonacci Technique” by Robert Gatliff on his FluteTree.com web site. His Fibonacci Technique page lays out a mapping from the letters in the Latin alphabet onto the pentatonic minor scale, but does not include the octave note.

**What can you use Alphabet Songs for?**

At first, alphabet songs seemed rather whimsical, because of their arbitrary or random nature. However, over the years, I found them useful in more and more situations. Here are some:

**Personal songs.** You can play a “person's song”, based on their name. This is useful in one-on-one situations as well as more public settings such as in classroom presentations and memorial services.

**Teaching scales.** In an educational setting, you can use the alphabet song exercise as a game. The side effect is that participants will learn the scale they are playing. In particular, they will learn to play leaps (see Leaps on page 31) and start to introduce them in their own melodies. For more advanced participants, you can teach alternate scales simply by playing alphabet songs based on that scale.

**Teaching song structure.** To teach common song structure patterns:

- Have people play select two phrases. Let's call them “A” and “B”. For example, I might use my first and last name – “Clint Goss” as my “A” and my middle name – “Francis” as my “B”.
- Have people play a alphabet song based on the “A” phrase.
- Repeat the “A” alphabet song.
- Play an alphabet song based on the “B” phrase.
- Finally, play the “A” phrase again.
- People have just gotten experience playing the classic “AABA” song structure.

**Alphabet Song Charts**

Here is a chart that I use for playing alphabet songs in the pentatonic minor scale:

Here's how it works: Take a phrase and, for each letter in your phrase, locate the letter on the chart. Then read across to find the finger pattern to use for that letter.

By the way, the colors in the charts on this page are from the Color of Sound calculator for the pitches on an F# minor flute. They are the frequencies of those pitches, scaled up 40 octaves and converted to a frequency of light.
If I want to play “Clint Goss”, I would start by locating “C” on the chart:

If we want an alphabet song chart that maps numeric characters onto the pentatonic minor scale, we have some choices. What I’ve done in my version is to use the degrees of the scale from music theory – a method that many people use to notate their music.

However, since we only use six pitches in the pentatonic minor scale, that leaves the digits 0, 2, 6, and 9 with no corresponding finger patterns. I give two choices in the chart below: copying four of the other digits or using some unusual notes outside of the pentatonic minor scale for the digits 2, 6, and 9.

Here is my version of the chart:

This lets you score alphabet songs based on numbers. Here are the first 28 digits of $\pi$ – 3.141592653589793238462643383 – in a pentatonic minor scale.

Play the melody down each column starting with the leftmost column:
**Other Scales**

One of the most beautiful and easiest scales to use for alphabet songs is the Bugle Scale. However, since most players are initially taught the pentatonic minor scale, I usually don't start with this scale:

---

**Other Alphabets**

If you're really intent on playing world music, you might try playing alphabet songs based on other languages. Charts based on Cyrillic, Katakana, Hebrew, Arabic, Georgian, Greek, and Cherokee are available on Flutopedia.com.

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**Printing Alphabet Charts**

If you would like to use alphabet songs in your flute circle or presentations, you can print out full-page versions of all of these charts. Visiting Flutopedia.com and searching for “Alphabet Songs” will take you to a page that has all these charts available for printing.
The Heavenly Rut

All your flute playing sounds the same, the wandering melodies don't take you anywhere, and you're dreaming of new musical forms, styles, and horizons. You're in a “rut” … but we like to call it the “Heavenly Rut”. Wherever you think you are stuck, the music that comes out is probably just this side of heaven.

This chapter has a list of ideas we have used to help people build on their established flute playing and overall musicality, but expand into music that has a different sound.

A / B / A

Sometimes, people are looking to add a bit of structure to their songs. One of the most direct ways to add structure is to intentionally craft a song in the A/B/A form. This is basically a song where the beginning and end are noticeably similar, and the “B” section is “something different”.

The A/B/A form is very prevalent in most genres of music. Maybe it is because the repetition of the “A” section takes listeners back to a familiar motif. Or maybe it is because A/B/A echoes the pervasive “journey” storyline: starting from home, going to a faraway place, and ending back home.

Here are some straightforward ways to craft “something different” in the “B” section:

- Change the melody.
- Change the rhythm. This might be using a different rhythm in the “B” section, or it could even be to simply play non-rhythmically in the A section and to use a rhythm in the B section.
- Change tempo.
- Change dynamics. You could do a loud / soft / loud version of A/B/A.

This chapter was written by Clint Goss. A similar article appeared in Clint & Vera’s Flute Newsletter, April 2014, together with content from Flutopedia.
• Change the pitch range. You could play the A section on the lower notes, then move to the higher notes for the B section.

• Change articulation. Contrast playing all the notes connected with playing slightly disconnected notes with tonguing or even very short notes.

• Change emotion. Pick two different emotions and intentionally move between them in your sections.

**Begin in a New Place**

Most melodies and songs have one note that provides the “tonic” or “tonal center” for the melody. It is often the note on which the song begins and ends.

Very often, the tonal center for Native Flute music is the lowest (all holes closed) note on the flute. It is certainly a gorgeous note, but by no means the only starting point!

To add variety, try starting and ending your songs on a different note. Try to center the melody on that note: starting on the new note, returning to it at key points, and ending the melody on the new note.

Every note on the flute can serve as a tonal center – many work like crazy, others are workable, none are unmusical. You might spend a full week dedicated to songs with a single tonal center - getting to know it like a new friend, and finding out how all the other notes relate to that new tonal center.

You will find that using particular notes as a new tonal center dramatically changes the feel of your songs, and they seem to come from a new culture. Simply changing your tonal center to the first note up from the bottom note ([3](#) or [3](#)) will impart a major/Western feel to the music.

**Come from Rhythm**

Many songwriters say that the best way to find a new song is to start from a new rhythm.

Put on a rhythm CD or track, get the rhythm in your body (maybe even for five minutes before you start playing) and start jamming. Some of the more complex rhythms can word wonders.

• Stephen DeRuby has a rhythm CD

• Glen Velez “Rhythm of the Chakras” has some incredible rhythms.

• You can also download an array of backing tracks (search for the rhythm-only tracks) on the Flute Haven Recording Kiosk site at http://www.flutehaven.com/recording_kiosk.htm.

To really expand your rhythmic repertoire, try one of the odd meters such as 5/4.

**Try a New Scale**


• Start by practicing the scale up and down.

• Then progress to doing a woven scale (there is a demonstration of that on each of the scale pages on Flutopedia).

• Then experiment with playing some scale songs (see The Scale Song chapter on page 17, or see the on-line version on Flutopedia at http://Flutopedia.com/from_scales_to_songs.htm.

Finally, try some free improvisations in the new scale and see where it leads. You could spend a few weeks in the new scale to really get comfortable with improvisation with that new set of notes.

**Play with a New Instrument**

Explore playing with a guitar, piano, dulcimer, or any type of percussionist - especially ethnic percussionists. You could take your flute (preferably a high-pitched instrument) to a
community drum circle. You could try going on-line to one of the live jam services (which I hesitate to name because they seem to come and go frequently).

**Play to the Clock**

For me, this was the best exercise to help me play structured songs.

The exercise is to improvise a composition that fits exactly in a one-minute timeframe. It must have a beginning, a middle section, and an ending. The goal is to take the listener on a (short) journey. You can do this in front of a big clock with a sweep second hand - starting and ending on the “12”. Try to bring it in and land it at exactly one minute.

In the words of W. A. Mathieu:

*We live a lifetime in each one-minute song, and then we get to do it again and again ...*

**Blues Form**

The 12-bar Blues form is very familiar to most Western listeners. Here is an approach to structuring a song in this form:

Find a motif that you like that begins and ends on the lowest note: [0 0 0 0] or [0 0 0 0]. Try for something about 10 or 15 seconds long. Play it until you are very comfortable with the motif. I'll call this the “root motif”.

Then follow this outline:

- Play a motif that starts on [0 0 0 0] or [0 0 0 0], and make it half the length of the root motif.
- Play a motif that starts on [0 0 0 0] or [0 0 0 0], and is half the length of the root motif.
- Play the first half of the root motif.
- In place of the second half of the root motif, blues players often “go wild”. They may play something entirely different or even stop playing.

Cycle back to the start of this sequence, and you just might get the sense that you're following a song form you've heard many, many times.
After you've played solo flute for a bit, you might want to try your hand at playing with other instruments. If the other instrument has pitched sounds (such as a guitar or a piano), one of the things you will likely want to do before you start playing together is to get your flute in tune with that instrument.

Notice I said “get your flute in tune”. There are some players who think it’s the sole responsibility of the flute maker to get the flute in tune, but it's really a cooperative effort between the flute maker and the flute player. The maker has tuned the flute with certain goals – firstly to get the flute in tune with itself and to be in tune with other instruments under certain conditions (primarily temperature and breath pressure). Chances are, when you play, you are under different conditions and you won't be quite in tune.

From the player's perspective, the easiest thing to do is let the flute warm up by playing it for two or three minutes (or breathing a few times into the finger holes) and then bring the flute into tune with the pitch of the other instrument by using breath pressure. The more breath pressure you provide, the sharper the pitch of the flute gets (it also gets louder). As you reduce breath pressure, the flatter the pitch gets (it also gets softer).

Time to Play
OK, enough of the “head space” explanation. Here's the fun part … this is a wonderful practice and will really prepare you for quickly hearing the sound of another instrument and bringing your flute up to pitch.

- Pick up your favorite flute (one where you know the “key” of the flute) and …
- Head over to the Flutopedia Reference Drones page at the address: http://www.Flutopedia.com/reference_drones.htm

(optionally, you can go to www.Flutopedia.com and enter the text “Reference Drones” in the search box)
This page has recordings of “drone” sounds. They are all about a minute long and have an announcement of what note they are and how they are tuned. The audio players in the green column are “on pitch” and that’s a good place to start:

- Choose the note (row) that matches the key of your flute.
- Click the Play button on the green player.

On your flute, play long tones on the bottom note. Experiment with how much breath pressure is needed to be exactly consonant (in tune) with the drone. Get comfortable with bringing your flute from very flat, through “in tune”, to very sharp in relation to the drone sound.

### The Sound of Consonance

How do you know when you are exactly consonant?

When two pitches are at slightly different frequencies, they set up a oscillation that our ears hear as a “wah wah wah …” variation in the timbre of the sound. To hear this oscillation, try playing two reference drones at the same time (you can click on more than one audio player on the Flutopedia Reference Drones page).

Click on two players that have pitches which are very close together, such as the in-tune C and the slightly sharper C +25 cents. Can you hear the oscillation? Now try C and C +50 cents. This produces an oscillation of a different, faster speed.

When you bring your flute into perfect consonance with the drone, you can hear that oscillation. The speed of the “wah wah wah …” starts out fast when you are far from the
pitch, slows down as you get closer to the pitch of the drone, and ceases when you are right on the drone pitch.

One thing you may find is that the breath pressure needed to get a flute in tune with a drone sound makes the flute louder or softer than you’d like. If you are playing flat relative to a crystal bowl at a meditation session, breathing harder into the flute will just make you too loud for the situation. Here are some suggestions (taken from the *Frequently Asked Questions* page on Flutopedia):

As you move the block toward the foot end of the flute, the flute typically gets flatter. Moving the block toward the head end typically makes the flute sharper. However, realize that the effect is more pronounced on the higher notes of the instrument (for example: 〈○○○○○○○〉 and 〈○○○○○○○〉) compared with the lower notes (for example: 〈○○○○○○○〉 and 〈○○○○○○○〉). Moving the block also affects the timbre of the instrument and the tendency to overblow.

**The Effect of Temperature**

As the temperature inside the sound chamber rises, the flute tends to get *sharper*. Lower temperatures correspond to flatter pitches. Several factors affect the temperature inside the sound chamber, including the ambient (room) temperature and the tendency for the air in the sound chamber to get warmer as you play for a while. The chart below shows readings I took with a small thermometer inside several places inside a flute. It shows a substantial increase in the temperature inside the slow air chamber of about 18°F over the first 90 seconds. However, the rise in air temperature inside the sound chamber was slower and more modest – about 7°F over the first 3 minutes of continuous playing, which would amount to a rise in pitch of about 12 cents.

Finally, there have been a lot of discussions and confusion about the effects of humidity and altitude.

Humidity has a *very* small effect on tuning. At 72°F, there is only a difference of 7 cents between the minimum of 0% relative humidity and the maximum of 100% relative humidity.

Altitude, in itself, has virtually no effect on tuning. The confusion was caused because temperature *tends* to change with altitude, but simply changing altitude does not affect temperature directly. See the *Frequently Asked Questions* page on Flutopedia for a discussion of why altitude does not affect tuning.

**Swapping Blocks**

In rare cases it might be possible to swap the blocks on two flutes and change the tuning. This is generally only possible between blocks that have a flat bottom. Here are some general guidelines:
• Changing from a block with a flat, back-sloping face such as the upper block in the picture to a block with a flat face that is more vertical or forward-sloping will typically lower the overall pitch of the flute (make it flatter).

• Changing from a block with a flat, forward-sloping face such as the lower block in the picture to a block with a flat face that is more vertical or back-sloping will typically raise the overall pitch of the flute (make it sharper).

• Changing from a block with a flat face to a block that has wings will (with other things being equal) typically lower the overall pitch of the flute (make it flatter).

• Changing from a block with wings to one with a flat face will (with other things being equal) typically raise the overall pitch of the flute (make it sharper).

More Uses for Reference Drones

Below the grid of recordings on the Flutopedia Reference Drones page, there are a lot of suggestions for using the reference drones.

Explore things like playing your flute with the bottom three fingers open and top three closed. Can you bring this in tune with the drone note? … A bit more challenging.

Bringing your flute in tune with the pitches around you is one of those basic skills that improves very quickly. If you try just a few minutes a day for a week, you'll probably find you can very quickly “zoom” your flute into consonant tune with another sound using your breath pressure.

Pitch Shifting Background Tracks

I'm trapped in a corner. I’m sitting in a Yoga session, playing my flutes. In that setting, a soft background track to support the flute really makes a difference, and the sound system at the Yoga studio is great. So I plug my laptop in and put on a sparse, drone-like background and play a low flute that should be consonant. And what comes out? … Complete dissonance.

The yoga instructor's eyes go up and my flute goes silent.

Wrong backing track? No.

Wrong key flutes? No.

The problem is that the volume I have to play at for that situation is quite low. So … my flute is very flat compared to the background track.

The next yoga session is in two days, and I'm totally focused on fixing the problem. I could record some new background tracks that are 20–30 cents flat, but that would mean my entire database of music (60,000+ tracks!) would be off-limits. And what if I'm 50 cents or 80 cents flat? Then I stumbled across a simple solution:

An audio player that has a pitch shift function!

Two days later I saunter back in, plug in my laptop with its new software, and quietly soar over all my favorite backing track set to anywhere from 20 to 60 cents flat. I find that I can even adjust the pitch while I'm playing: I can play the upper notes on the flute with one hand and adjust the player's pitch-shift setting with the other hand.

The application I'm using is Best Practice version 1.03. It is freely available, open source, and seems to have no commercial component. I downloaded the latest version from:

http://SourceForge.net/projects/bestpractice/

With the “anti-alias” option checked, I can pitch shift up to two semitones without problems and even use a different key flute if appropriate.

Best Practice works well for me, but it only runs on a PC. I am hoping to get recommendations for audio player applications that run on different environments, specifically,
Apple products from iPhones and iPads through laptops. If you happen to know of (or locate) an application for other environments, I would love to hear your recommendation. I think it would need to be:

- Freely available;
- Non-commercial in nature;
- Work on MP3 and WAV/AIFF files and, optionally, on some database of music (such as an iTunes database).

If you know of (and have tested) other pitch-shifting audio player applications that meet these criteria, please email me and I'll spread the word.
Back to Back

We always stress that making a connection with another musician when you are playing duets or trios or quartets is very important. So why are the two musicians at the right – Deb Almy and Pam Hackworth-Dickey – playing back-to-back?

It's part of a technique that was developed by Rona Yellowrobe. You can use it as an exercise to emphasize the non-visual senses, put it to use in performance, or set it up as an activity in your next flute circle.

As described to me by Deb Almy, two players stand back-to-back with their backs touching as much as possible. Of course, it's best if the two players are about the same size and are “comfortable” with each other.

One player starts and the other comes in. You might want to do it with eyes closed to really emphasize the listening and physical connection to your partner's music.

The goal is to get players out of their head and make this a “play from the heart” exercise based as much as possible on sensory input. Rather than thinking about song forms and structures, trying to strategize about “what can I do next”, it's best to simply respond to each other's movements and sounds.

There is often a question of “who is leading”, but I've found that this quickly fades away to the point where neither player can tell who has the lead. As Deb says: “If this is truly working,

you will feel when your partner takes a breath and, if you believe in this sort of thing as I do, you'll begin to play off of each other's energy.”

Playing Your Heartbeat

On another topic, I had a very interesting experience during a medical test I had to take last week. They hooked me up to a heart monitor … Beep Beep Beep … but unlike most medical tests I was standing up. Of course, for a musician the fairly steady, 70ish beats-per-minute sound invites music-making!

This chapter was written by Clint Goss. A similar article appeared in Clint & Vera’s Flute Newsletter, August 2014.
When they left for a few minutes to set up the test, I began to improvise over the rhythm: vocal sounds, hand percussion, body beats, foot tapping. Must have looked pretty comical since I was in one of those “open air” hospital gowns and had wires coming out on all sides.

Aside from it being a whole lot of fun playing to your own heartbeat, an interesting thing happened: my heart rate went down. Now that is something we've seen during flute playing, but not something I would expect when making the physical motions of body percussion.

Love to hear if anyone else has had an experience such as this …
Active Listening

Music listening is part of our daily existence, part of our culture. It is often said that passive music listening is the “soundtrack of our lives”.

For those of us who have allowed our musicianship to wake up, listening is one of the most useful tools we have. However, rather than just letting the sounds of music osmose passively into our brains, it can be extremely valuable to convert our habitually passive music listening into an occasional active listening experience.

An excellent example of how you might create an active listening experience, either for yourself or for a group of players, is a lesson plan developed by Patricia Shehan Campbell that appeared in 1994. It was developed in response to the need by music teachers to increasingly incorporate music that originates from outside the Western European music tradition:


This article is partially based on the ideas from that lesson plan, augmented with our own experience facilitating active listening experiences.

Selecting the Music

Your first job is a fun one (of course, they're all fun): Select the ideal music for an Active Listening session.

And, to be clear, the Active Listening CD cover I composed above is not a real production CD! It's a “virtual” album that you compose of your favorite music that you think encourages the kind of conscious listening experience that will be most helpful.

You can select tracks that are extremely sparse and clear in their music. Solo Native flute tends to be ideal for this, or flute tracks that just have

This chapter was written by Clint Goss. A similar article appeared in Clint & Vera’s Flute Newsletter, September 2014.
a simple drone or heartbeat rhythm accompaniment.

Another approach is to compose a playlist based on a theme – in workshops focused on developing vibrato, we have a playlist that demonstrates the kind of vibrato that female singers have used over the last seven decades. The short excerpts of their singing clearly demonstrates how vibrato has slowed down over the years, and how singers have begun to bring in vibrato gradually rather than at the beginning of the note.

**Background**

It sometimes helps to know the back-story or motivation behind a piece of music.

For example, the track *Origins* on the *Cycles* album by R. Carlos Nakai was created for a multimedia presentation at the Heard Museum in Phoenix. Nakai’s intention was to portray the sound experiences he felt in the open expanses of the Southwest and Northern Plains. He describes his inspiration this way: “My clan, Naashteezhi dine-e Taachiinii, allows me to be one of the people.” The piece is his musical reflection on his participation as part of the extended family of the Navajo people.

**Environment**

For an active listening session, it helps to have a good listening environment. While technology has provided us with access to more music, in more places, on smaller devices, and at less cost, the actual auditory experience has often suffered. Compressed digital files, inexpensive ear-buds, pervasive background noise, and frequent interruptions often frustrate attempts at active listening.

So wait till you have reasonable control of your listening environment and set aside the time to treat yourself to a true auditory experience. You don't need to go overboard in the audiophile direction – just try to get a real CD-quality source or an MP3 with minimal compression (192Kbps or better), reduce the background noise as much as practical, and use reasonably high quality speakers or headphones.

**Listening**

When listening, it can help to actively engage the mind with some questions or exercises. Different activation techniques work with different listeners, so you can use a range of questions or exercises to promote active listening.

Here are some things you might try to listen to the musical aspect of the recording:

- Can you follow the rise or fall of the melody? Try drawing, painting, dancing, or conducting the rise and fall in the melody.
- Can you identify what ornaments - grace notes, trills, pops, mordents, or turns - are used to dress up the melody?
- Experienced musicians and listeners might find it very easy to follow the melody, so ask them to try to identify the intervals used in ornaments. This can be a very challenging exercise.
- Can you identify the phrases played within a single breath? Where is the performer
breathing? Are they taking hidden gulps or sips of air at unusual places?

- Can you identify the various instruments in the recording?
- Listen for the use of vibrato and match the movement of an open, outstretched palm to the speed of the vibrato.
- Conduct, draw, paint, or dance the dynamics of the music - how loud or soft it gets. Are there sudden changes in dynamics during ornaments?
- Can you identify the over-arching structure of the song? Many songs use a structure of A-B-A or alternating verse and chorus.

- Is the song in a duple meter (such as 1-2-1-2 … or 1-2-3-4 …), or a treble meter (1-2-3-1-2-3 …)?
- Is the song in a major key (bright, like most Western European music), a minor key, or some other unusual key?
- Does the music change key or change between major and minor?
- Is the song completely consonant, or does it use dissonance at any point?

**Performance and Recording**

- Was the song composed, improvised, or some combination?
- How was the song recorded? Live? In a studio?
- Are the performers playing together or were different tracks layered onto the music at different times?
- Is the tempo “perfect” (e.g. done to a “click track”), slightly loose (as in a live performance), or completely free with large changes in tempo?
- What effects are being added to the sounds of the instruments?

**Reflection**

- Is the song familiar? Does it sound like another song I know?
- What is the mood of the music? Is the performer trying to convey an emotion? Does that emotion change throughout the piece?
- How does the music make me feel?
- Does the music trigger any memories?
- Are there any smells (or smell-memories) that are evoked by the music?

**Voice**

Here are some activities you might try with your voice:

- Can you match your voice to the melody and hum or sing it?
- Can you follow the melody with your voice an octave higher or lower?
- Can you sing other harmonies against the melody?
- Can you hold a single drone note with your voice against the melodic line?

**Deep Listening**

These questions and activities are all designed to help us create a deeper connection with recorded music. Going beyond using recorded music, there are many other activities and approaches we can use to create deep listening experiences in flute gatherings.

If you are facilitating workshop session or flute circles, see the **Deep Listening** chapter on page 129. It has a discussion of how you might structure activities to heighten listening.
Playing (from the Heart) Over Changes

Native flute players often like to hang out in one key. We might even be happy in one chord for a song, or a day, or even our whole playing career. G minor flute … G minor chord, singing our heart song through our flute, and the music is sublime.

We share this one-chord preference with a lot of other music genres and world music cultures – trance music, Kirtan singing, and many forms of East Indian music – many of which seem to focus on that sublime aspect.

At the other end of the spectrum are genres such as Bebop that are constantly, almost frenetically, moving through chord changes. They zig, zag, and zing through major, minor, seventh, diminished, suspended, and augmented chord progressions, dazzling our senses into harmonic ecstasy.

Most of our culture's music lies somewhere in between: moderately paced and (after a verse and chorus) fairly predictable chord changes. The songwriter's mantra: “Three Chords and the Truth” has been at the center of many of our culture's most popular music.

When a Native flute player first encounters an accompanist – typically a guitar or keyboard player or a background track – we are often at a loss for how to handle playing over chord changes. From our listening experience we understand that melody somehow “tracks” those changes in harmony in a kind of symbiotic harmony-dance. But without any experience moving between chords on the flute, we have no idea how to handle “playing over changes”.

This article describes a very simple technique to achieve this symbiosis in harmony. It extends the idea of “playing from the heart” and “one-breath solos” (see page 13) to include chord changes, while avoiding the head-space music theory and charts that typically crop up in this area.

The next History section describes how this technique developed. Feel free to skip it and go right to The Technique section that follows ...

History

I tried for about 10 years to facilitate “Playing over Changes” in flute workshops. Some sessions had moderate success. Most were abject disasters. Some of you reading this chapter were in those sessions, and I can almost see a smile on your face.

The general format was to work with a guitarist or keyboard player – Eric Miller, Dave Jorgensen, Adam Page, Peter Dubner, Ron Volkman, and many others – all outstanding accompanists and all very familiar with Native flutes. They would play a typical straightforward accompaniment chord progression and we would all try to identify (eyes closed) when each change in chord occurred. That typically worked well.

This chapter was written by Clint Goss. A similar article appeared in Clint & Vera’s Flute Newsletter, March 2015.
I would then proceed to derail the whole session by launching into music theory. The One, the Four, the Five, the Relative Major, the Major one step down from the Minor, the Circle of Fifths, and on and on and on down the Rabbit Hole. My early failures at verbal descriptions of music theory gave way to charts, tables, diagrams, slide shows, and finally videos. There was even a slide chart.

These also failed miserably.

Then came Flute Haven 2013. We were near the end of yet another of these “going downhill” sessions. Amid the confused faces and head-scratching, long-timer participant Pat Kay (pictured above right at the closing of Flute Haven 2010) asked:

Clint – how do YOU play over chord changes?

I was dumbfounded. Why hadn’t I thought of this? I had played a concert the evening before - entirely improvised - and had never thought about music theory. But I also had never verbalized how I do improvise over chord changes … so I just blurted out:

“I play any note I feel like and, if it sounds right, I hang out there. If it doesn't sound right, I move up or down one note.

Both notes – one note up or one note down – seem to almost always work harmonically.

So it doesn't matter which way you go.

And ... I've learned to use ornaments and effects to make it sound like that's what I had intended all along.”

The group stared at me and someone asked “That’s all you do?” I started to get a sinking feeling in my stomach until someone in the back said “Cool!”

And then … they all did it. Everyone seemed to get it. First time – first shot – all the way around the room, playing over a guitar who was now progressing through all kinds of wild chord changes. And it sounded great. We had come back to the home-place of this instrument – long tones, playing from the heart, ornaments, and listening.

The Technique

Here is a general outline for “Playing (from the Heart) Over Changes”. You can customize it for your own personal use, one-on-one teaching, or facilitated group sessions:

1. Listening Exercise: Identifying Chord Changes

You can do this with live or recorded music (such as the sample background tracks provided below). You can do this any time – even listening in your car. It’s best to listen to music genres with occasional, clear chord changes such as most Country, Blues, 50’s Rock, Western Pop, Acoustic Folk, and many others.

The exercise is simple: nod your head at each chord change. At first it is reactive – recognizing that a change in harmony has happened. Then it becomes predictive – nodding right on the downbeat of an expected chord change.
2. **Rhythm**
Tap your foot slowly. Nod your head on every fourth foot-tap (every fourth “beat”). You can count “1 – 2 – 3 – 4 –“ to yourself, but this isn't really needed since we can feel a four-beat so easily.

3. **Four-beat Long Tones**
Play long tones with full breath (see the One Breath Solos chapter on page see page 13). Play the long tones while tapping your foot. Every four beats, change your note to another random note. You don't need to take a breath between notes. Play as many four-beat notes as you reasonably can in one breath.

4. **One-beat + Three-beat Long Tones**
Instead of holding the same note for all four beats, play your random note for only the first beat. Then, after the first beat, move either one note up or one note down, and hold that note for beats 2, 3, and 4.

5. **Combinations**
Combine four-beat long tones with One-beat + Three-beat long tones. You can start alternating and then work towards doing one or the other, randomly, almost without thought as to when you hold your initial note for four beats or move up or down after the first beat.

6. **With Accompaniment**
Now play over a simple accompaniment that is in the key of your flute. “Simple” usually means that it has few chord changes and they change regularly.

**Background Tracks**
Here are some example tracks. These were developed on an iPad in Garage Band (on headphones while on an Amtrak train!) and recorded on the Recording Kiosks (http://www.FluteHaven.com/recording_kiosk.htm) we now use at workshops. No processing or cleanup was done (since our computers were down at the time), so they are a bit “raw” at the start and finish.

They are MP3 files, so you can either play them by clicking on the links, or using Save–As to download the tracks. All tracks are licensed as CC–BY (Creative Commons – Attribution), so you can use them for any purpose (even commercial) but you need to credit Clint Goss:

Playing (from the Heart) Over Changes …

… in A Minor:

… in G Minor:

… in F# Minor:

First, get in sync with the rhythm. Then bring your flute up to tune with your breath pressure so that it is consonant (“in tune”) with the backing track. On some flutes, this might take substantial breath pressure, so you might need to play surprisingly loudly.

Now try the Combinations technique described above: Play a note and, if you like the combined sound, “hang out” there. If not, move up one note or down one note and “hang out” there.

At the beginning, “hanging out” can be just a long tone. With more experience, and especially with different music styles, you can play around with ornaments and even little melodies centered on the “hanging out” note.

Here is a track I did to demonstrate the technique. It's a bit rough since I was playing GarageBand and my flute at the same time and mixing it directly to the recording with no post-processing. The first 2 minutes are the “straight” technique and then I get a bit more experimental using some melody lines and
ornamentation. By 3 minutes, it starts to feel (to me, at least) like a “real song”:


With experience, you will find that you will start hearing where the harmony is going. You will also start to bring in ornaments and transitions that create a complimentary melody over the chords. It will begin to sound like “everything is as it should be” … and all done with no sheet music, no music theory, and from the heart.
Alternate Scales

Most players learn one primary scale on their instruments. They then go off and work on creating melodies, improvising, playing from the heart, and generally expressing their creativity … all within that one primary scale.

Other scales – “alternate” scales using different fingerings – tend to get a bad reputation. They can feel like you are taking a step backwards since the new fingerings do not feel natural. And simply the word “scale” tends to evoke images of music theory or memories of endless practice sessions running mind-numbing scale progressions to satisfy some childhood music teacher.

Over the years, I have come to appreciate the creative opportunities that alternate scales have to offer. They can be a huge benefit if you:

- feel that your playing has gotten into a rut,
- want to evoke images of a different world music culture,
- want to play a particular melody that is outside of the primary scale,
- need to play in a different key, but don't have that key of flute (you can actually play most flutes in more than one key of pentatonic minor),
- need to play in a mode, such as major, that is not part of the primary scale, or
- simply want to increase your creative possibilities on the instrument.

Getting Started

The first thing you might explore is the simple rule: “pick up your fingers in a different order”. This rule has the advantage of keeping alternate scales in the realm of a listening game.

Starting from \( \text{•••} \), rather than picking up your ring finger for the next typical finger (giving you \( \text{•••} \)), try picking up your middle finger for \( \text{•••} \). After that, proceed up the scale in a normal order, which would give you the sequence:

You have a new scale! Now try a few slow runs up and down the scale to answer the most important question: Do I like it? If not, it's back to square one to find some other combinations of “pick up your fingers in a different order” that you like.

You could also try some other rules, like:

- “skip a note”,
- “add a closed finger below a finger you are opening”, and
- “add a note in the upper register”.

This chapter was written by Clint Goss. A similar article appeared in *Clint & Vera’s Flute Newsletter*, October and November 2014.
Learning the New Scale

Once you find a scale you like, it's time to learn the new finger pattern. This is where many players get sidetracked in their attempt at a new scale. Remember that it will take a little while for you to be comfortable in the new scale. You cannot expect to simply run it up and down a few times and expect to have learned the finger pattern. Remember how long it took you to become comfortable in the primary scale?

Here are a few techniques you can do to ingrain the new scale in your finger-memory:

- Run the scale repeatedly, from bottom to top and back down again.
- Try playing Scale Songs in the new scale (see page 17).
- Try a “woven scale” (see below).
- Try playing every other note on the way up, then the top note, then every other note on the way down. If the scale has an odd number of notes, you get to play all the notes in the scale in an unusual order.
- Now try working on leaps: sequences with large intervals between the notes. This is where I usually have problems …

If you start making mistakes, rather than getting frustrated, take as a message that you have tried to proceed too fast. This is a learning experience, not a contest, so go back and try what you are doing twice as slowly and deliberately. Or you might have to try it ridiculously slowly and deliberately. But in the end, remember the old adage:

“The slower you play it, the faster you learn it”

Woven Scales

Woven scales (also called “broken scales” or “scale ladders”) are a way of playing scales that involve changing directions rather than playing the scale in strict ascending or descending order. Woven scales make good finger dexterity exercises as well as providing a basic melody that is more melodically interesting that a straight scale.

The formula for playing a woven scale is simple:

Two forward, One back.

Try starting from the bottom note of the scale, play the next two notes, then go back one note. Repeat this all the way up the scale. At the top of the scale, you might have to experiment a bit to figure out the best way to turn it around and proceed back down. The sequence might look like this (with the “one back” notes in red):

Woven Scale: Pentatonic Minor

A Scale Catalog

Once you have experimented with finding your own alternate scales, you might like to pick a scale out of the scale catalog that I put together.

The complete Scale Catalog (all eight pages shown in this article plus a descriptive cover page) is available in a Scale Catalog PDF:


It has typical fingerings for contemporary six-hole Native American flutes (sometimes called a “mode 1/4 flute”).

This list of 58 scales is meant to be a tool for exploration of scales from world music traditions. Most players of Native American flutes use a very small number of alternate scales, so please do not feel compelled to try to learn the full set of scales provided.
The remainder of this article describes the scales on each of the pages in the Scale Catalog.

**Core Scales**

The first scale that most people teach is the pentatonic minor scale. However, I've found that a great alternative is the Bugle Scale. It is also a great scale to teach as a first alternate scale - after experimenting with the "pick up your fingers in a different order" approach.

Note that the root of the Bugle Scale is not \( \text{\#1} \). If you improvise melodies in this scale, you will find yourself ending on \( \text{\#3} \) – the root of this scale.

The great thing about the Bugle Scale is that it is a great lead-in to playing one of the core songs in the Native flute's repertoire: Amazing Grace.

Note that all the other scales on this first page that I am calling “Core Scales” also have a root that is above the fundamental \( \text{\#1} \) note on the instrument.

Pentatonic Major can be a revelation for many novice and intermediate players, because it opens the door to playing in a major key. Simply keeping the same notes as Pentatonic Minor, but moving the root note of your playing (where you begin and end your phrases and melodies) changes the key to major.

**3-Note and 4-Note Scales**

These “sparse” scales follow the rule of dropping notes. They are typically easier to learn than the other scales because they have relatively few notes.

Note the fingerings in red: they are notes in the upper register of some (but not all) Native American flutes. I’ve added them to the charts to make them available if your flute happens to be able to play those notes.

**Exotic Pentatonic Scales**

These are often the best scales to begin with if you are exploring new scales. They provide a “sparse” feel that evokes Asian cultures.

The notes in orange are not recommended - I've added them to the scale catalog simply to show that these notes are in the scale, but playing them can be extremely difficult on most flutes. However, their corresponding notes in the second register, in particular the note typically played with the fingering \( \text{\#3} \), can be excellent replacements.

**Variants of Pentatonic Minor**

These scales are all slight variations of the Pentatonic Minor scale. They differ by only one note from the core Pentatonic Minor scale.

It is fun to explore how making just a small change in a well-known scale can dramatically change the feel of the scale.

**Expanded Scales**

These scales increase the number of notes from the five notes of Pentatonic Minor. The seven scales on this page are among the most versatile, although they take the feel of melodies in a whole different direction from the typical melodies played on this instrument.

Upper Major and High Major are two versions of the Diatonic Major scale. On these two scales, you can play many songs from the Western European tradition of music, especially those that stay within one octave (such as many hymns).

**Diatonic Scales**

This page shows fingerings for a full set of seven diatonic scales.

Each one starts on \( \text{\#3} \) and, if you can access three notes in the upper octave, gives you a full one octave in the scale.

**Other Pentatonic Scales**

And finally, the last two pages show an array of other 5-note scales from world cultures.
Core Scales for Native American Flutes

Typical fingerings for contemporary Native American flutes

Developed by Clint Goss

Bugle Scale

Taps

Pentatonic Minor

Zuni Sunrise

Pentatonic Major

Pentatonic Celtic

Mode Four Pentatonic Minor

Summertime Greensleeves *

Mode Four Hexatonic Minor

All the notes - not usually used in songs.

Chromatic

Root note of the scale

Orange: half-hole fingerings (Avoid)

Notes above the octave


Page A — Visit www.Flutopedia.com for more Native American Flute resources

Updated August 11, 2014

September 26, 2015
3-Note and 4-Note Scales for Native American Flutes

Typical fingerings for contemporary Native American flutes

Developed by Clint Goss

Ute Tritonic

Sansagari

Major Triad

Upper Minor Tetratonic

Pentatonic Minor with no minor third

Bi Yu

Pentatonic Minor with no perfect fourth

Minor Tetratonic

Pentatonic Minor with no perfect fifth

Lower Minor Tetratonic

Pentatonic Minor with no minor seventh

Root note of the scale

Notes above the octave


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Updated August 11, 2014
EXOTIC PENTATONIC SCALES FOR NATIVE AMERICAN FLUTES

Typical fingerings for contemporary Native American flutes

Miyako-Bushi

Rotation of Hirajōshi

Hirajōshi 1

AKA: "Ake Bono"
Sakura

Hirajōshi 2

Hirajōshi 3

Iwato

Zilaf

Ryukyu

Khamaji Durga

Root note of the scale

Orangani half-hole fingerings (Avoid)

Notes above the octave

Page C — Visit www.Flutopedia.com for more Native American Flute resources

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September 26, 2015

Updated August 11, 2014
# Variants of Pentatonic Minor

Typical fingerings for contemporary Native American flutes

Developed by Clint Goss

<table>
<thead>
<tr>
<th>Pentatonic Minor</th>
<th>**</th>
<th>**</th>
<th>**</th>
<th>**</th>
<th>Zuni Sunrise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixolydian Pentatonic</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>Priya</td>
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<tr>
<td>Varamu</td>
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<tr>
<td>Kokil Pancham</td>
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<tr>
<td>Northern</td>
<td>**</td>
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<td>**</td>
<td>**</td>
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<tr>
<td>Madhuranjani</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
</tr>
</tbody>
</table>

**Indicates the note that differs from Pentatonic Minor**

Root note of the scale

Notes above the octave


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Updated August 11, 2014
EXPANDED SCALES FOR NATIVE AMERICAN FLUTES

Typical fingerings for contemporary Native American flutes

**Upper Major**

- Oh Tannenbaum
- Amazing Grace (lower)
- Simple Gifts
- Kayowajineh

**High Major**

- Oh Come All Ye Faithful
- Amazing Grace (upper)

**Blues Six-Note**

**Blues Seven-Note**

**Spanish Gypsy**

- Streets of Cairo (AKA: The Snake Charmer Song)

**Byzantine**

**Neveseri**

- Greek folk music

---

Root note of the scale

Orange: half-hole fingerings (Avoid!)

Notes above the octave


---

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Updated August 11, 2014

September 26, 2015
# Diatonic Scales for Native American Flutes

Typical fingerings for contemporary Native American flutes

Developed by Clint Goss

<table>
<thead>
<tr>
<th>Scale</th>
<th>Fingerings</th>
<th>Songs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diatonic Major</td>
<td><img src="image" alt="Fingerings" /></td>
<td>Joy to the World, Over the Rainbow, The First Noel, Shenandoah, Colors of the Wind</td>
</tr>
<tr>
<td>Dorian</td>
<td><img src="image" alt="Fingerings" /></td>
<td>Scarborough Fair, Eleanor Rigby</td>
</tr>
<tr>
<td>Phrygian</td>
<td><img src="image" alt="Fingerings" /></td>
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</tr>
<tr>
<td>Lydian</td>
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<tr>
<td>Mixolydian</td>
<td><img src="image" alt="Fingerings" /></td>
<td></td>
</tr>
<tr>
<td>Aeolian</td>
<td><img src="image" alt="Fingerings" /></td>
<td></td>
</tr>
<tr>
<td>Locrian</td>
<td><img src="image" alt="Fingerings" /></td>
<td></td>
</tr>
</tbody>
</table>

Root note of the scale

Orange: half-hole fingerings (Avoid)

Notes above the octave


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Updated August 11, 2014
OTHER PENTATONIC SCALES FOR NATIVE AMERICAN FLUTE

Typical fingerings for contemporary Native American flutes

Developed by Clint Goss

Mohanangi

Jayakauns

Kiravani

Marga Hindola

Multani

Chin

Varini

Mand

Page G — Visit www.Flutopedia.com for more Native American Flute resources
OTHER PENTATONIC SCALES FOR NATIVE AMERICAN FLUTE

Typical fingerings for contemporary Native American flutes

Developed by Clint Goss

Bacovia

Dhavalashri

Hindol

Valaji

Mamata

Devaranji

Kuntvarali

Purukutika

Root note of the scale

Page H — Visit www.Flutopedia.com for more Native American Flute resources  Updated August 11, 2014
A Scale Codex

The prior chapter I provided a list of all the scales I could find on the Native American flute (there were 58!) In an interesting aside, the very next melody I improvised after sending out that newsletter used a scale not on that list (!!!) Amazing what scales this instrument holds!

After sending that list out and distributing it at our workshops, we’ve gotten a number of requests for more specific information on each scale: what are the intervals, what about written tablature, what are the notes on each key of flute, and how do they relate to chords and harmony.

So, I've cooked up the idea of a “Scale Codex”. Each page shows a single scale with lots of detail.

The complete Scale Codex is available in a Scale Codex PDF:


It has typical fingerings for contemporary six-hole Native American flutes (sometimes called a “mode 1/4 flute”). This comprehensive info about each scale is meant to be a tool for exploration of scales from world music traditions.

The remainder of this chapter describes the elements on each page of the Scale Codex, using the Pentatonic Minor scale as an example.

Pentatonic Minor

The image at the right shows the first page of the Scale Codex – for the Pentatonic Minor scale, typically considered the primary scale on most Native American flutes.

The top of the page shows the notes for the scale in Nakai tablature - the system used for most sheet music for these instruments. Below each note are the finger diagrams for the most typical fingering for each note. Note: Each flute is unique. Fingerings needed to get any particular pitch vary, sometimes dramatically, from flute to flute. While the fingerings for the Pentatonic Minor scale are fairly standardized, most of the other scales have notes that call for a wide variety of fingerings across the range of flutes.

Below the fingerings are the intervals (in Western classical music theory terms) from the root note of the scale.

One of the best ways to learn a scale is to sing it. The Scale Codex uses the vocables that are used in two common systems for “note singing”: the Western Solfege system and the East Indian Sargam system.

Next comes twelve rows that show the notes of the scale on each of the twelve keys of flutes. The key of flute is always the first column. However, note that the root note of many scales is not the lowest note on the instrument!

This chapter was written by Clint Goss. A similar article appeared in Clint & Vera’s Flute Newsletter, December 2014.
Below the notes, each Scale Codex page has the intervals (number of semitones) between each note in the scale, and the cumulative number of semitones from the root note of the scale.

The “Perfect Ratio” row gives the ratio of the frequencies in relation to the root note. These frequencies are very close to (but not exactly) the tunings that we use in the Western classical music tradition – typically called “Equal Temperament”.

And finally, the bottom row shows the intervals as they are known in the Jazz world.
PENTATONIC MINOR SCALE

Six-hole flutes — Pentatonic Minor Tuning

Developed by Clint Goss

Common fingerings for most Native Flutes

Interval | Root | Minor Third | Perfect Fourth | Perfect Fifth | Minor Seventh | Octave | Minor Tenth

Solfège

“La” | “Do” | “Re” | “Mi” | “Sol” | “La” | “Do”

Sargam

“Dha” | “Sa” | “Re” | “Ga” | “Pa” | “Dha” | “Sa”

“Key” of flute: C | D# - E♭ | F | G | A# - B♭ | C | D# - E♭

Notes

C# - D♭ | E | F# - G♭ | G# - A♭ | B | C# - D♭ | E

D | F | G | A | C | D | F

D# - E♭ | F# - G♭ | G# - A♭ | A# - B♭ | C# - D♭ | D# - E♭ | F# - G♭

E | G | A | B | D | E | G

F | G# - A♭ | A# - B♭ | C | D# - E♭ | F | G# - A♭

F# - G♭ | A | B | C# - D♭ | E | F# - G♭ | A

G | A# - B♭ | C | D | F | G | A# - B♭

G# - A♭ | B | C# - D♭ | D# - E♭ | F# - G♭ | G# - A♭ | B

A | C | D | E | G | A | C

A# - B♭ | C# - D♭ | D# - E♭ | F | G# - A♭ | A# - B♭ | C# - D♭

B | D | E | F# - G♭ | A | B | D

Semitones between notes from root: 3 3 2 5 2 7 3 10 2 12 3 15

Perfect Ratio: 1:1 6:5 4:3 3:2 9.5 or 16.9 2.1 11:5

Jazz Intervals: I iii IV V vii VIII x

* Only a small percentage of Native American flutes can reach this note, and the fingering varies widely.

Visit www.Flutopedia.com for more Native American Flute resources

Updated November 16, 2014
One of the most useful tools we have as musicians is the ability to record and hear our own sound creations. The technology revolution has given us the ability to make high-quality recordings relatively conveniently and inexpensively.

Sometime during each of our Native Flute workshops, Vera and I offer this challenge to the group: commit to getting your music down on a CD. It’s the greatest gift you can give friends, family, and people who want to hear more of your music … a little CD package that essentially says: “This Is My Music”.

The benefits are enormous. Beyond having a heartfelt creation to offer as a gift or a calling card, the process of creating a CD can be so valuable for improving our musicality. We get to practice particular songs and focus on particular flutes, do some “deep listening” sessions during tracking and mixing, and experiment with graphic design to complete the package.

But despite these benefits, it can still be a daunting process to go from playing your flute to handing “This Is My Music” out to your friends. This chapter is an overview of some of the ways to get from music to recording.

One approach is to hire a producer who shares your vision, and place the project in his or her hands. The job of a producer is to coordinate and oversee every aspect of the project that is needed to bring the project to completion. This is the typical approach taken by larger record labels, and can work for musicians who have some significant finances behind the project.

If you don’t have a bountiful budget, there are many ways to approach the project, right down to recording and mixing your own project and burning CDs on your computer’s CD writer.

This chapter was written by Clint Goss. A similar article appeared in the February 2012 issue of Voice of the Wind, published by the INTERNATIONAL NATIVE AMERICAN FLUTE ASSOCIATION (INAFA). An on-line version is available on Flutopedia at http://www.Flutopedia.com/art_this_is_my_music.htm.
The first link in the recording of your sound is the microphone. One of the challenges of playing Native American flutes is that they are constructed so that we, as the player, are often in the worst location to hear our own sounds. The vibrations project from under the block and sound hole and finger holes out to our listeners better than they project back to our own ears. And one of the huge benefits of recording our sound is learning to work with this microphone.

Even if you intend to use a studio to record your music, it’s a good idea to learn to work with the microphone. A simple setup that routes the microphone back into your ears (via headphones) can let your hear the real sound of your flute for the first time. It might be as simple as connecting a microphone to your computer’s “Mic” port and ear buds to the speaker jack.

With this simple setup, you have added a lot of possibilities to your musical world. Not only can you hear your own flute playing clearly and get experience with how to use the microphone to control the volume and timbre of your sound, but you can record your playing as well as broadcast your music over the Internet. To record your own playing, you’ll need one of the many recording programs available. Audacity is a good (and free) choice, if you’re not daunted by the numerous features. For something simpler, just do a Web search for “simple recording software”.

If you’d like to get involved with other flute players, try some of the live, Internet-based audio chat rooms that function as high-tech open mic sessions. PalTalk is a free service that hosts a number of such sessions throughout the week (www.PalTalk.com). With the simple microphone and headphones setup, you can join in and blast your live playing to all corners of the Earth.

Selecting a microphone for playing flute is always a challenge. There are many kinds and brands of microphones, and they can be confusing. The good news is that many brands of high quality microphones that are ideal for flute playing are available relatively inexpensively. You might begin with a simple all-purpose dynamic microphone such as the Shure SM-57 instrument microphone, generally available for about $90. However, for more detailed recordings and a better overall sound, using a “large diaphragm condenser” microphone will get you noticeably better sound quality and recordings.

However, using a condenser microphone brings one added requirement: you have to supply power to condenser microphones. One easy way to accomplish this is to run your microphone into a small mixer and then run the output of the mixer into your computer on a USB or Firewire interface. Depending on your goals and finances, you can choose a mixer that has some added features (in addition to the “phantom power” needed for the condenser microphone):

- the ability to add effects such as reverb and delay,
- the ability to equalize the frequency of your sound by adjusting the balance of the high, middle, and low frequency components of the sound signal, and
- the possibility of mixing in other instruments and/or background tracks that you can play over.

Digital effects such as delay and reverb can add a whole new dimension to your flute playing, smoothing out any unwanted irregularities in your breath pressure and bringing you close to the sound that is typically heard on professionally mixed and mastered CDs. On the downside, digital effects can be over-used, making your sound muddy and distant. This is where deep listening over extended periods comes into play … finding just the right amount of each effect to add to get the sound you want. For my taste, the goal is to capture the ambiance of the natural environment you want your listeners to visualize. Each environment – a cathedral or a canyon or a concert hall – has its
own sound reverberant profile that can be emulated with digital effects.

Getting practice on your own or during PalTalk sessions with how to set the EQ and effects can be a huge benefit during recording and mixing sessions.

Another possibility for recording is using one of the new portable digital recorders rather than a computer. These are inexpensive and can produce a great sound, especially if you use your external microphone and/or mixer. Vera and I have travelled with an older Zoom H4 to many great locations around the world and caught the sounds of many musicians and sound environments.

When you’re ready to record your music for posterity, you might consider getting someone else to handle the tasks of recording while you just play. This frees you from the angst of getting the best recording (or “tracking”) of your sound.

After recording, the project generally proceeds in stages toward completion: laying down other tracks that will become part of a song, mixing the tracks together (using mixing software such as Audacity), audio mastering of all mix tracks to polish the overall sound of the CD, pre-mastering of the CD image to add the meta-data that can be added to your project, graphic design and printing of the package, and duplication (using CD burner technology typical of computer CD writers) or replication (which is a larger-volume production process using a glass master).

If the prospect of tackling all the tasks alone is too daunting, you could consider recording some of your tracks at home and hiring an audio engineer to mix them and produce the CD. Alternately, you could seek out a program that at a flute school or festival that handles as many of the tasks as you need.

Whether you hire a producer or undertake the process yourself the important thing is that you get “This Is My Music” produced and out into the world.

Your audience awaits!
Every musician should have their own CD.

That may be a controversial statement, but … There … I said it.

The process of crafting your music into a permanent recording has so many benefits and generates so much positive energy that I have come to love it almost as much as playing. I’ve done it six times now, and look forward to the seventh.

When we are crafting a CD, we play more, focus on our musical ideas in a larger scope, interact with other musicians, perceive our music more from the listener’s perspective, and spend many wonderful hours listening deeply to our own musical sounds. All good things! And there is nothing that compares with handing another person a little disc of polycarbonate and saying “this is my music”.

One of the big questions that comes up before, during, and after producing your CD is: How do I promote my CD? When you produce a CD, widening the circle of your listeners is part of the process. This chapter has some suggestions for how to get your music out there in gradually wider circles of distribution. We start from the smallest, closest circles and widen outward from there … starting for a self-produced CD for small-circle distribution up to a serious attempt to be an Indie artist.

This Is My Music

Most debut CDs by musicians I know are what I call a “This Is My Music” CD. It is generally the music we love to play, regardless of marketing considerations like specific genres, target audience, and packaging.

For a CD of your own music designed for friends and family, as well as limited sales at your own gigs, most people begin this way:

This chapter was written by Clint Goss. A similar article appeared in the May 2009 issue of Voice of the Wind, published by the INTERNATIONAL NATIVE AMERICAN FLUTE ASSOCIATION (INAFA). An on-line version is available on Flutopedia at http://www.Flutopedia.com/art_widening_the_circle.htm.
• Burn your music to a CD-R on your computer, design a label for the CD on a computer graphics program such as PhotoShop, and give it away or sell it.

• If you get tired of burning CDs one at a time off your computer, you could get a multi-disc CD burner (I have a Sandy Yang duplicator and it works well).

Alternately, you could use an outfit such as DiscMakers (www.DiscMakers.com) for “short-run” duplication. It will cost maybe $4–5 per CD in quantities of 300 and under.

This may be all you need! Personally, I believe all musicians should strive to have their own personal CD. Gifting your music to friends and family is a wonderful act … “This is my music” is your best calling card!

Getting more sales and exposure may be tempting, but it carries a tax in effort, organization, paperwork, and cost. Go as far as you wish, but keep tabs on the monetary and time cost.

**“Niche” Sales On-line**

At this level you're looking to distribute directly to people who are beyond your own circle of friends and family. They may be in a circle of ardent fans of either your particular “niche” style of music or fans of your group itself.

Consider moving to CD replication rather than CD-R duplication. Replication is typically done by an outside house such as DiscMakers (www.DiscMakers.com). Cost is typically around $2 per CD, but minimum quantity is realistically 1,000. The advantages of replication over CD-R duplication are many, but the big one is reliability. Replication uses a glass master/stamping process that is very reliable, as opposed to the reflective dye “burning” process of duplication.

Get a UPC bar code on your product. To do anything in the “real world” with your product you'll need a bar code. Typically the replication house will supply one, sometimes for free. Alternately, you can use CD Baby (see below) if you are still doing home production.

Sign up with CD Baby. This is the best thing you can do for yourself. They are incredibly useful and supportive in every dimension of what an Indie artist needs. For a $35 fee per CD, you get a dedicated web page for your music, listings in their often-perused catalog, distribution to a slew of digital download services (the big one being all the regions of iTunes), fulfillment of physical CDs (they warehouse your CD, take credit card sales on-line and fulfill them), fulfillment of digital download off their own web site, and provide a pile of advice.

For a flavor of CD Baby and for the really good advice they offer, check out their general advice for Indie artists at www.CDBaby.com.

CD Baby does make many things easy, but there are many many things that they do not do. The big thing is that they do not actually promote your music … that's squarely in your domain. They do give you advice however (“when you do a gig, take a picture of the audience from stage and put it up on your web site the next morning - and tell everyone in the audience what you are doing so they rush to your web site to see themselves”).

Get your songs into Gracenote/CDDB and FreeDB. These are the on-line databases that provide the title and artist information to your iTunes software when you import a CD into iTunes. To populate your information into the Gracenote/CDDB Media Database (www.gracenote.com), you can use the iTunes application itself and the Advanced->Submit command. For FreeDB (www.freedb.org), I use the AudioGrabber PC software.
Covering the legal and royalty bases in anticipation of royalty income

Sign up with a Performance Rights Organization (“PRO”). A PRO handles royalties derived from airplay and performance of your music, and pays those royalties back to the songwriters and publishers. There are three organizations in the U.S. (ASCAP, BMI, and SESAC) but most other countries have a single organization.

Establish a relationship with a publishing company, or create one of your own. The publishing company receives 50% of many classes of royalties, so having your own company allows you to retain that portion of any royalties. Note that in the US, there is a complication because of the multiple PROs. In practice, your publishing company needs to have an affiliation with the same PRO as the songwriter. To handle this, most publishing companies have separate divisions, each registered with a different PRO.

Register all your songs with the Harry Fox agency (www.HarryFox.com). This is done by the publishing company and is a convenient way to collect mechanical royalties, in the case where someone else wishes to record your songs.

Register your songs for copyright protection. Typically done in the US through the Library of Congress, using form SR within 3 months of publication.

Register your music with SoundScan at www.Soundscan.com.

Register for an ISRC code prefix. ISRC codes are stamped onto CDs for track identification.

Register your songs with your PRO.

For sales to a wider audience

Consider professional cover design. Your cousin might be great with Photoshop, but a professional graphic artist will make a huge difference to your shelf-appeal.

Consider professional mastering of your tracks. After mixing of your music, a mastering engineer will often provide a substantial improvement to the sound quality of your CD by balancing the sound level and EQ across the tracks, removing low rumbles, and adding ISRC codes.

Get your CD(s) on Amazon.com. There is a straightforward program for vendors called “Amazon Advantage”.

Selling CDs directly to retail stores is typically done through distributors. There are many music distributors – I cataloged 206 when I was looking for distribution in mid-2007. Distributors tend to specialize in a segment of the retail market and/or geographic region. Examples include: CD “Bins” at truck stops, new age stores, museum shops, and “captive markets” such as airline style channels. For example, New Leaf and Music Design distribute to New Age shops, with New Leaf being primary for the US East Coast and Music Design for the US West Coast.

Consider submitting your music to Pandora (www.Pandora.com) – a very widely used service.

Consider your own web site. In particular, if you have more than one CD and wish to accept orders that you fulfill yourself.

Submit your music to AllMusic at www.AllMusic.com.

Consider various music awards such as the Independent Music Awards, International Acoustic Music Awards, and (of course) the Grammys!!

Consider using Pump Audio for promotion of your music to the video/film industry.

If you get to the point of being a serious, possibly full-time Indie artist or decide to become a record label and publishing company that represents and promotes other artists, there is an excellent book: All You Need to Know
About the Music Business by Donald S. Passman

However, it is not for the casual reader! (Unless you want to buy the book just to convince yourself that you'd rather spend your time on your music instead of descending into the legal and financial morass that surrounds the music biz).
Nudge, Nudge

It’s happened to us all … we go to a flute circle, festival, or workshop and get inspired. We listen and learn and play and play and play. Our playing improves and we come away from the event with new inspiration and with the conviction to practice more, write down our songs, and start recording our CD …

Then we return from the event. Work intrudes, projects pile up. Life happens. Four weeks later, we’ve barely picked up the flute. That intense feeling of wholeness we had when we were expressing our music is replaced by a hollow feeling of failure and inability to play. Our promise to practice an hour a day feels like a failed New Year’s resolution to lose weight.

After I had many of these roller-coaster cycles of “workshop love” and “homeplace draught”, I began to take aim at the problem. One solution, go to a flute festival every week, was deemed impractical by the very practical Vera, my wife of 26 years. I had to agree with her.

Then she pointed out that my playing wasn’t the problem, it was my practicing. Her advice: don’t play for a solid month. Instead, spend the time focusing on how to structure my life to fit the music in.

One month of not playing seemed severe. But I had to admit I probably would not have played much that month, and the exercise of restructuring my life to fit in the music began to be fun. I did not need to “set aside time” for this exercise, I could do it anywhere!

So I started thinking about it while driving to work. The first realization was that if I could think about restructuring my life toward music while driving, why couldn’t I just do music while driving? The next day I had a stack of CDs in the car, and within a week I had a huge list of CDs and iPod music that I had wanted to listen to … enough for a year’s worth of commuting.
W. A. Mathieu, the famous jazz pianist and music educator, advises musicians to spend $\frac{1}{4}$ of their time listening to other people’s music, so I was already 25% of the way to my goal.

Then I happened to listen to a recording of the great jazz flutist Yusef Lateef, where he was scat singing at the same time as improvising on his flute. So I tried singing along with some simpler NAF melodies. At first it was difficult to even find the first note, but once I was able to match pitch with a few long-tones, singing became easier and easier.

Then something magic happened: I began playing flute without a flute! I could develop NAF melodies just by humming, and I found I could immediately play them on a flute along with my humming. I was running home after parking the car and playing for an hour while humming melodies.

Vera was not impressed with my “success”. I had not, after all, spent one full month thinking about music in my life, but had simply found one quick (but admittedly, awesome) way to focus on music. Knowing that she is usually right about these things, I returned in earnest to the mental task. I came up with many ideas and tried them over the years … here is a list of some of the successful ones:

**Create a safe space for your music**

This is a place and a time where you can be yourself musically – to do whatever strikes your fancy, including vocalizing, playing your flute loudly, doing physical warm-ups, and playing other people’s music. The physical space could be as little as a shelf with your favorite flute(s) and some sheet music.

The time aspect is often more challenging … creating a half hour where others in your life acknowledge that this is “your time”. Getting a switch where I could send my telephone calls directly to the answering machine without having it ring was a key step here.

**Sprinkle flutes around your living space**

If you happen to have more than one flute, try placing them in places that invite you to play. It just might encourage you to pick it up if the time is right. For me, playing flute 5 times a day for 5 minutes was much more valuable than playing for a straight half hour.

**Loop pedal**

I am lucky to have a loop pedal attached to my microphone and speaker setup. I found that if I lay down a simple rhythmic loop and leave it running, then I am drawn back to my music space over and over throughout the day to jam with that background.

**Keep the music going**

I organized my iPod by creating a playlist of background listening music, and play it a low volume all day. It’s so low that a person on the other end of a phone call will not hear it, but for me it’s there. This was a huge inducement to play.

**Create a goal**

Every time I had a concert scheduled, I practiced like mad. In the weeks leading up to a workshop that we would lead, my music came to the forefront. When I got serious about doing a CD, I played like mad. Eventually, I realized that if I had a series of nicely spaced events, that I would be encouraged to play all the time.

**Reading**

I found that the more I read about music, the more I wanted to play. After reading VOW I would play for days. The great books on music and improvising spurred me on: *The Listening Book* by W. A. Mathieu, *Effortless Mastery* by Kenny Werner, and *The Music Lesson* by Victor L. Wooten all spurred periods of intense music making.
I used these tricks and techniques over time to nudge me into playing. But as I settled into playing more regularly, something amazing happened. I found that the positive feeling I got from playing each day exceeded the effort of getting started. Was I getting addicted to playing flute? So be it!
Cultural Insights

For those of us who did not grow up in a Native American culture, traditional music can sometimes be mystifying:

- Why are some songs secret?
- Why are improvised melodies preferred over composed songs?
- Why is there no music theory in traditional approaches to the Native American flute?
- And what do the phrases “All My Relations” and “Wakan Tanka” mean?

Along my journey with the Native American flute, I have come across some writings that have shed light on these core questions. They are written by people who did not grow up in a Native American culture, but I believe their insights are keen. Of course, these writings are not a substitute for talking with elders of the culture – but maybe they can augment such an experience.

I address each of these questions below, as best as I currently understand it from the writings that follow. I have slightly edited some of the writings to better fit the context.

I hope you find this useful!

Preamble

Although most Native American cultures share a common core of beliefs, the belief system of each culture is unique and specific to that culture. This also applies to social areas such as language, ceremonies, medicines, and traditions.

This chapter looks at beliefs and customs of specific cultures. While this can give us insight and understanding, these beliefs cannot

This chapter was written by Clint Goss. It contains a major contribution from Barry Higgins, who provided numerous and detailed suggestions and additions, as well as the majority of the text for the Preamble section. A similar article appeared in Clint & Vera's Flute Newsletter, June 2014. The images in this chapter are photographs and paintings by Eanger Irving Couse (1866–1936), the Taos Society of Artists, Taos, New Mexico. Photos courtesy of by Russell Wolf.
typically be applied universally across Native American cultures. The popularized notion of an all-inclusive “pan-Indian” philosophy does not typically serve us, or the cultures involved, with an accurate and deep understanding. For example, medicinal herbs used by one tribal group for a specific function may be “taboo” to another group.

**Why Are Some Songs Secret?**

For Ancestral Puebloans, songs have the power to directly cause actions. Performing a song can possibly have dire consequences. Those consequences can happen even if the performer did not intend harm. Keeping these powerful songs a secret protects people – performers and listeners – who might be harmed.

The traditional concept that “speech and song are actions” is described by Emily Brown in her lecture titled *Musical Performance in Rituals of the Ancestral Puebloans of the American Southwest*. This is an edited excerpt from a video of that talk, provided by the SAR School for Advanced Research in Santa Fe, New Mexico:

> There is a belief that is widespread among the pueblos and it may be of some antiquity: Speech can be an action that has real-world consequences.

> What this means is that some words, songs, or prayers are so powerful that they can be dangerous to people who are not supposed to hear them. Some songs are sung in a whisper so that people won’t hear and be harmed. Along with this goes the idea that the power of the song or prayer can be diluted if it is shared between too many people, and so some are kept secret for that reason.

Some songs are sung only in very private spaces, sung very quietly, or even sung in very archaic words or words in other languages, so that few if any people will understand what is said.

**Why Are Improvised Melodies Preferred?**

There is a tradition in many indigenous North American cultures that melodies are not composed, but arise spontaneously when the player “has placed himself in a receptive attitude”. The goal is to connect with the unconscious and to be acutely aware of the mysterious.

This perspective on how songs arise is given by this excerpt from Frances Densmore’s 1953 paper “The Belief of the Indian in a Connection between Song and the Supernatural”, Smithsonian Institution, Bureau of American Ethnology, Bulletin 151, pages 217–223:
An important phase of Indian music is known as the dream song, which is common to many tribes. These songs are not composed but are said to come to the mind of the Indian when he has placed himself in a receptive attitude. To this extent the source of the song is not unlike the inspiration sometimes experienced by composers of our own race, but the use of the song is entirely different. Our composer regards the song as a possible source of applause or wealth while the Indian connects it with mysterious power. ... An aged man once recorded his dream song for the writer, then bowed his head and said tremulously that he thought he would not live long as he had parted with his most precious possession. The white musician composes songs addressed to his deity. The Indian waited and listened for the mysterious power pervading all nature to speak to him in song. The Indian realized that he was part of nature—not akin to it.

Even though songs might best be described as arising spontaneously, this does not diminish the fact that many songs were memorized, shared through oral traditions, or put to specific uses. Even in a culture without a formal written language or the structure of music theory, a system often did exist that could preserve and direct the use of music. This informal system might be considered analogous to the process of music composition and publication.

Music Theory and Traditional Cultures

George Herzog wrote about the role of music theory in the cultures he studied. This is an excerpt from his May 1938 article “Music in the Thinking of the American Indian”, Peabody Bulletin, Series 34, Number 1, pages 8–12:

Indians have no musical theory, in our sense of the word. That is, they do not have a system of ideas and definitions which attempts to formulate specific rules of composition, construction principles of music for the creator and the analytically minded listener. This may be for a number of reasons: partly
perhaps because music and words form such an intimate union – instrumental music independent of singing is comparatively unimportant. Also, because music is so often part of a larger setting, a ritual, dance, story. In itself it may not control so much attention except as part of a more inclusive whole.

... the most important notions about music, at times rather elaborate, concern themselves chiefly with its ultimate origin and meaning. Its potency and place in the human scene are more significant matters to Indians in general than its technical character and mode of construction, or even its capacity for conveying personal expression and emotional meanings. A few quotations may be suggestive:

“When the Earth was newly created
Then the first time came the songs”
(Pima Indian Song)

“The land was put in order, when people came and began to dance.”
(Tarahumare Indians, Northern Mexico)

“Incantations, rituals and prayers were given to people by the gods before the emergence.”
(Zuni Indians)

The Phrase “All Our Relations”

Briefly: all the things – plants, animals, rocks, Earth. “All our relations” emphasizes the intricately connected web of relationships that sustains our mutual ability to live out our shared existence on the Earth together.

All living things matter, all are important, all must be treated as relatives. Even harmful, frightening or negative relations are important and must be understood and honored if we are to survive together in the same spaces. “All our relations” is a phrase...
used both as invocation and conclusion. It forces us to consider the balance between the weight of each human's responsibility in maintaining the balance of the world and in understanding the smallness of each individual in relation to the larger web of meaning.

However, while it is valuable to understand the intent of this phrase, if you are not from a Sioux culture and want to actively use and quote the phrase, care is suggested. For a description of how the phrase has become a misused slogan in popular culture, see *Animals of the Soul* by Joseph Epes Brown, Element Books, Rockport, MA, Second Edition, 1997.

The Phrase “Wakan Tanka”

This phrase from the Lakota language, written in various sources as Wakȟáŋ Thąŋka and Wakaŋ’ taŋka, is often translated as “Great Spirit”. However, according to the controversial Lakota activist Russell Means, the meaning is closest to the English phrase “Great Mystery”.

This description is from Frances Densmore’s 1953 paper (cited earlier):

> Among the Sioux Indians the term “wa’kan” is used in referring to any mystery. The term “Great Spirit” is commonly used as the English equivalent of the Sioux word “Wakaŋ’ taŋka,” which consists of two adjectives, wa’kan, “mysterious” and taŋ’ka, “great.” ... In old times this word was not used in ordinary conversation, as it was held too sacred to be spoken except with reverence and at a proper time. That which remains unspoken must be considered in any study of Indian thought, together with the fact that a “sacred language” is sometimes used by which ideas can be conveyed between initiates without being understood by others.

The phrase translated as “Great Spirit” varies across Native American cultures and language groups, together with subtle shades of meaning and intent. Here are just a few of the hundreds of variants: Gici Niwaskw (Abenaki), Usen (Apache), Apistotoke (Blackfoot), Ababinili (Cickasaw), Orenda (Iroquois), Ketanitowet (Lenape), Kisu’lkw (Micmaq), Gitche Manitou (Ojibwe/Anishnaabe), Wakonda (Omaha, Ponca, Osage).

Indian Music and Spontaneity

And finally, one of my favorite quotes by the early anthropologist Alice C. Fletcher. This is from her *Indian Story and Song from North America*, published by Small, Maynard & Co., Boston, Massachusetts, 1900, from the preface, pages viii-ix:

> Aside from its scientific value, this music possesses a charm of spontaneity
that cannot fail to please those who would come near to nature and enjoy the expression of emotion untrammelled [sic] by the intellectual control of schools. These songs are like the wild flowers that have not yet come under the transforming hand of the gardener.
How do we respond, physically and mentally, when we breathe into our flutes? Could the positive effects that we feel from playing flutes indicate a potential use of Native American flutes in music therapy settings? As an alternative therapy for specific clinical conditions, could playing the Native American flute have a place alongside traditional breath-centered practices such as Yoga, Qigong, and Zazen?

Many research studies have explored the effects of listening to music (see [Cervellin 2011] for an overview). Far fewer studies have investigated the effects of playing music on our minds and bodies. After an exhaustive search of the literature, we could find only a few studies on the effects of playing Native American flutes, and those studies used self-report methods rather than objective measurements of basic brain and body metrics. So, during the Flute Haven Native Flute School, we carried out a research study to measure the effects of both listening and playing on the heart, nervous system, and brain.

It is common in a single research study to test a very limited set of hypotheses. This approach makes data analysis straightforward and increases the statistical significance of the results. However, our goal was to identify which directions might be fruitful for future research.

Our curiosity and quest for future directions caused us to look at a wide range of measures and test many hypotheses. This approach, combined with the relatively small number of participants (15 flute players) and several other limitations, places our research within the context of an “exploratory pilot study”. While we identified several interesting trends and future research directions, we consider the results of this study as “preliminary” and suggest additional research to confirm the effects that we found.

This chapter was written by Clint Goss and Eric B. Miller and edited by Kathleen Joyce-Grendahl. A similar article appeared in the May 2014 issue of Overtones, pages 10–14, published by the World Flute Society.
The detailed results have been recently reported in several articles for the scientific community ([Miller 2014] and [Miller 2014a]). See those articles for a full description of how the study was done and the limitations associated with our results.

This chapter looks at the results of our research study from the perspective of flute players and facilitators of community music gatherings. What are the preliminary lessons learned? How can we use them as players and facilitators? In this chapter, we have kept the literature citations to a minimum, since they have been included in our two publications cited above. This chapter also includes some results that have not been reported earlier.

**The Study Outline**

We enlisted 15 volunteers to participate in the study from the Flute Haven Native Flute School. Each of them took about an hour off from the program of workshops and playing sessions, bringing two of their flutes a short distance to a lab that we set up for the study. Their flutes were:

- a “lower-pitched flute” – a mid-range E minor flute or lower, and
- a “higher-pitched flute” – a mid-range G minor flute or higher.

Participants were fitted with sensors on their scalp and the fingertip of one pinky to measure heart, skin, and brain activity. Participants then put on headphones and listened to an audio program, which guided them through a program of relaxation periods, listening to several kinds of music, and playing their flutes. Measurements taken during an initial period of silent relaxation served as a “baseline” to compare against measurements taken during later periods of listening and playing.

Throughout the study, we recorded the electrical activity of the brain in seven frequency bands, which provided an indicator of the overall emotional state of the participant. We also recorded the level of skin conductivity, which is an indicator of nervous system arousal and sometimes anxiety. This measure of arousal increases as small moisturized particles (sweat) on the skin are produced.

For heart metrics, we recorded precise pulse-beat measurements at the fingertips. These pulse-beat measurements allowed us to determine three cardiac measures: heart rate, volume of blood flow per heartbeat at the fingertip, and a key metric called “heart rate variability”, which is described below.

**Summary of the Significant Results**

The chart “Changes in Physiology when Playing Native American Flutes” on the next page summarizes significant results that we found during this study. The remainder of this section provides details and discusses those results. If you find the results in this section too detailed, feel free to skip forward to *Practical Applications* on page 111.

The effects described below are based on several types of comparisons:

- a comparison between the period of flute playing and a “baseline” period of silent relaxation;
- a “trend” indicating a comparison between the first half and the second half of the period of flute playing; or
- a comparison between the periods of playing lower-pitched flute and playing higher-pitched flute.

Items marked with † indicate that the result showed statistical significance and ‡ indicates a result with strong statistical significance.¹

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¹ The † marking indicates a significant result with a paired, two-tailed Student’s t-test result of \( p < 0.05 \). The ‡ marking indicates a highly significant result with a paired, two-tailed Student’s t-test of \( p \leq 0.01 \).
However, we again stress that, since we tested many hypotheses in this study, the effects that we found need to be confirmed in subsequent research studies with larger populations of flute players.

**Heart Rate, Blood Flow, and Skin Conductivity**

The first time participants played their flutes during the study, we asked them to play their lower-pitched flute. As we might expect, compared with baseline silent relaxation, their heart rate increased‡, they had more skin conductivity‡, and the frequency bands of electrical brain activity associated with muscle control increased†. The trend while playing lower-pitched flutes was toward an increase in the volume of blood flow per heartbeat in the fingertips‡.

During the second flute-playing period, we asked participants to play their higher-pitched flute. Again, skin conductivity increased during flute playing† when compared with baseline silent relaxation, and the trend while playing was toward an increase in the volume of blood flow per heartbeat†.

The heart rate of participants was lower during the second flute-playing period than during the first flute-playing period†. This might be expected, again because higher-pitched flutes are smaller and also because there may have been less anxiety during the second flute-playing period. However, contrary to what we might expect, average heart rate when playing higher-pitched flutes was actually lower than during the baseline period, when they were sitting in silent relaxation. This divergent response – heart rate decreasing while skin conductivity increased – begs further investigation.

**Heart Rate Variability**

When you inhale, your heart rate increases. As you exhale, your heart rate decreases. Similar variations in your heart rate occur on longer cycles of minutes, hours, and throughout the 24-hour sleep-wake cycle.
These normal variations in your heart rate are called “heart rate variability” or “HRV.” Higher HRV – i.e. a larger variation in heart rate – turns out to be a reliable indicator of health and general resilience to stress. A very steady heart rate – i.e. low HRV – is associated with a range of clinical conditions such as anxiety, hypertension, COPD, panic disorder, depression, and is also a predictor of sudden cardiac death.

With the goal of effectively treating those clinical conditions, various techniques have been explored to raise HRV. In particular, biofeedback training has been found to have various degrees of effectiveness in the treatment of asthma, PTSD, hypertension, anxiety, COPD, recurrent abdominal pain, music performance anxiety, and fibromyalgia. In the treatment of major depressive disorder, biofeedback training to raise HRV demonstrated effects that appeared to be stronger than drugs often prescribed for the condition.

Our study found that HRV increased an average of 84 percent when playing Native American flutes when compared with baseline silent relaxation. The increase in HRV compared to baseline silent relaxation was statistically highly significant when playing both lower-pitched flutes‡ and higher-pitched flutes‡.

We found that subjects with less meditation experience correlated a greater increase in HRV. The increase in HRV did not correlate strongly with age, gender, or experience playing Native American flutes, although this could be due to the limited number of participants in our study.

Studies have established that adults typically breathe in cycles of about 3 to 5 seconds. During our study, we found that playing the Native American flute tends to increase the breath cycle to about 10 seconds. Other research has shown that HRV is highest at breath cycles of about 12 to 15 seconds – or about 4 to 5 breaths per minute. We believe that the increased length of the breath cycle that naturally occurs during flute playing is a major factor causing the increase in heart rate variability.

**Brain Activity**

Several frequency bands of brain activity showed interesting results during the periods of playing.

**Alpha.** Brainwaves in the range 8 to 12 Hz² – often called the Alpha band – are associated with a light meditative state, relaxation, and closing of the eyes. Alpha waves decrease with eye opening and mental exertion.

During our study, Alpha waves decreased in relation to the preceding silent relaxation period while playing both higher-pitched flutes‡ and lower-pitched flutes. The trend reversed during the playing period itself, with Alpha waves trending upward during playing for both higher-pitched flutes‡ and lower-pitched flutes. This suggests a pattern of decreasing Alpha waves during initial playing followed by increasing Alpha as playing continues. This pattern is consistent with participants closing their eyes, relaxing, and attaining a light meditative state, but only after playing for a period of time – about 90 seconds in this case.

It is also interesting to note that the highest Alpha waves measured during our study were during the two silent relaxation periods that followed periods of listening to music. While it was not a goal of this study to explicitly examine the effects of silence, the enhancement of Alpha waves agrees with prior research that has demonstrated activation of the auditory cortex during periods of musical silence ([Kraemer 2005](#)), and the positive impact of silence in music on retention and recall ([Olsen 1995](#)).

² Hz = Hertz = cycles per second
The increase in Alpha band activity from baseline silent relaxation to flute playing correlated strongly with years of experience reported by the participants playing Native American flutes. We can surmise that, over time, players become more adept at quickly entering a light meditative state when they begin playing.

**Beta.** Brainwaves in the 15 to 25 Hz range – termed the Beta band – are usually associated with alert, active thinking or anxious concentration.

Our study showed different reactions in the Beta band for novice and experienced players. When compared with baseline silent relaxation, novice players showed significant *decreases* in Beta activity when playing both higher-pitched† and lower-pitched‡ flutes while experienced players showed slight *increases* in average Beta brainwave activity during the flute playing periods. We propose two conjectures:

- Less experienced players are not as habituated to the tones of the Native American flutes, where the more experienced players exhibit a reduced novelty effect; and
- More experienced players tend to make greater mental use of music theory rules to create melodies.

**Theta.** The 4 to 8 Hz range is termed the Theta band. Elevated Theta waves have been found in various studies during creative processes, deep meditation, drowsiness, inattention, and is associated with working memory.

We measured increasing trends in Theta band activity during the periods of playing higher-pitched‡ and lower-pitched‡ flutes. We also found a significant increase in theta band activity in novice players, but not experienced players, between the silent relaxation periods at the very ends of the study† – i.e. between the initial baseline silent relaxation period and a similar period of silent relaxation after all the periods of playing and listening to music.

Our results provide some indications of movement during flute playing towards the attributes associated with increased Theta band activity. The overall experience of the study – listening, playing, and interim silent relaxation – did increase Theta activity in novice players. We suspect that these measured trends would be more robust if longer playing periods were used in future studies.

**Delta.** The 0.5 to 4 Hz range is termed the Delta band. These slow waves dominate brain activity in adults during slow-wave sleep, a phase of deep, non-rapid eye movement sleep.

When compared with the silent relaxation period preceding the two periods of playing flute, our study found that flute playing had the opposite effect on Delta than it did on Alpha band activity: While Alpha waves *decreased*, Delta wave *increased* for both lower-pitched‡ and higher-pitched flutes‡. This increase in Delta showed no significant trends during the flute playing periods.

**Practical Applications**

Although this broad-based study was not designed to provide definitive answers to specific questions, we can infer some potential guidelines from the results. This section combines the results of our study with information from prior research studies to suggest some practical applications for flute players and facilitators of community music gatherings. A number of assumptions are implicitly made in these suggestions, but we believe they are reasonable.

**Breathing Rate**

Playing the Native American flute appears to slow breathing rate from about 15 breaths per minute to about 6 breaths per minute. Encouraging players to slow their breath rate a bit further – to about 4 to 5 breaths per minute – may have some health benefits.
One approach we use in workshops is to have people play “one-breath solos” – first on their voices and then moving to their flutes. Depending on what a person plays, we might ask them to play the same solo slower, hold some of the notes longer, or play it two times in a single breath. These activities combine a memory exercise (repeating the same one-breath solo) with an exercise that slows their breath rate.

Another technique is to have players focus on their inhalation. This type of mental focus often causes players to breathe in more deeply and slows their overall breathing rate. Another technique, used by Cornell Kinderknecht, is to focus on “squeezing out some extra air” from the lungs to extend a phrase.

Length of Playing Time

The lengthy time it takes for flute playing to affect Alpha and Theta waves suggests that longer playing periods are preferable. Longer playing periods are common in community drum circles, but can be a challenge to facilitate in flute gatherings. Here are some ideas of things you can do with the group as a whole, or with segments of the group, while inviting individual flute players to solo:

- Have everyone chirp very short notes to a rhythm that you establish. If the notes are very short, the differences in pitch will not produce too much dissonance.
- Have everyone hold the same long tone as a drone. If people have different key flutes, you can ask them to hold these fingerings, which should all sound roughly the same pitch:
  - D flutes hold [\[\] or [\[\],
  - E flutes hold [\[\],
  - F# flutes hold [\[\],
  - G flutes hold [\[\],
  - A flutes hold [\[\],
  - B flutes hold [\[\].
- Establish a simple repeated pattern and have all flutes of a particular key play that pattern.

You can engage others in the circle who are not playing the pattern by asking them to create texture sounds, such as the sound of the wind by breathing across the finger holes on their flute.

Showcasing Players

One technique in drum circle facilitation is to showcase a single player, either as a solo or playing above an established pattern. In practice, having that player be more experienced seems to have better results. Experienced players tend to be adept at more musical techniques, and our study suggested that experienced players can enter a light meditative state more quickly when they play. This suggests that players with more experience can quickly become attuned to the group and the situation, and they may also serve as a model for less experienced players on playing “in the moment”.

Using Silence

The effect of silence noted in the Brain Activity section on page 110 underscores the general belief among musicians in the power of silence. Jazz pianist Keith Jarrett famously said that “Silence is the potential from which music can arise”.

Along these lines, experiment with the effect of adding slightly longer pauses when you play. Does it engage your audience? Do they “lean forward” just a bit?

If you are facilitating a group with a conducted improvisation, you might include an occasional “stop/cut”. This can be done by clearly conducting the entire group from full play to complete silence, then marking four or eight beats of silence before signaling them all to resume playing. You could emphasize this technique by inviting other people in the group to try their hand at conducting a stop/cut.

A common game in small ensembles is to “pass the solo.” With the group engaged in a steady-state repeated pattern, each player takes a turn
soloing over the pattern. To incorporate silence, you could ask an ensemble to “pass the silence.” After a steady-state pattern is established by the group, players take turns stopping for a few bars. You could make it more challenging by asking them to re-join the music with a different part, and see how the pattern changes as the silence moves around the group.

**Disengage the Visual**

One of the most powerful techniques we have found for facilitating a deeper listening experience with a group of flute players is to have them close their eyes. This simple technique helps participants focus on the sound, raises Alpha brainwaves, and seems to reduce any level of anxiety associated with playing in front of other people.

We often use this technique when we want to emphasize an exercise, activity, or teaching point. Simply having the group close their eyes and repeat the activity can be a powerful aid to learning.

**Future Directions**

Our study is in an area of research that deals with some fundamental questions. What are the physical and mental effects of playing music? What are the implications for music therapy? Is playing music effective as an alternative therapy for specific clinical conditions? Our initial goals were to develop techniques for measuring the effects of Native American flute playing, to record basic metrics of the body and mind, and to identify fruitful directions for future research.

We believe, despite the limitations of our study (described in detail in [Miller 2014]), that these goals have been met. And, in particular, the results showing a significant increase in heart rate variability during flute playing indicates that our exploratory approach to measuring physiological metrics has proved fruitful.

The past several decades have been witness to a profound shift in the practice of Western medicine. In addition to new medicines and procedures for treating the sick, there is a growing focus on wellness care, alternative therapies, and the mind-body connection. Many of these alternative modalities come from traditional practices such as Yoga, Qigong, Tai Chi, various forms of meditation, a broad range of expressive arts, and from biofeedback training.

Many of these alternative modalities share a common focus on the breath. There is a growing body of evidence for the effectiveness of various breath practices on a variety of clinical conditions. Flute playing can also be seen as a breath practice. Is it possible that Native American flute playing could be effective for some clinical conditions? In answering this question, we have a number of indicators:

- Research has established that Biofeedback training to raise HRV is “probably efficacious” for asthma ([Wheat 2010], page 238);
- Our study demonstrated that playing Native American flute raises HRV;
- Throughout the course of this study, we have received many unsolicited accounts from asthma sufferers testifying to the value of playing Native American flutes for their condition;
- There is a body of research showing various benefits of wind instruments on parameters of lung function.

We believe that the confluence of these indicators suggest the possibility of a direct causal link between playing the Native American flute and the reduction of the symptoms of asthma.

We suggest that a compelling direction for future research would be a direct investigation of the effect of a music therapy program of Native American flute playing on asthma.
References


The Native American Flute and the Future

In 2012, Kathleen Joyce-Grendahl posed the following question – this chapter is my answer to that question:

*What do you see in the future for the Native American flute? Possible items to consider are: trends in recording, solo and ensemble performance, flute making, musical and cultural education, scholarship, etc.*

The Native American flute is a fantastic tool for the re-birth of musicality in people whose lives had been closed to musical self-expression. Of all the many roles that the Native American flute has served, this is my personal favorite. We see people who had some distant, dark failure in their musical development suddenly re-awaken to the possibilities of being a creative creature, of being able to “play”. And the Native American flute is an ideal tool for personal self-expression.

The renaissance of the instrument coincides with a groundswell of changes in education. Humanistic education is at the center of a shift from traditional, discipline-oriented teaching techniques to more student-centered, experiential approaches that incorporate life experience and promote personal expression. And music education has been an ideal subject area to pioneer the use of humanistic techniques. The teacher as guide rather than performer, the use of motivation and self-directed development, and the emphasis of an education approach that integrates many aspects of a person’s life and experience – these are all cornerstones of the various education approaches that are changing the way we learn.

Standing in front of a hundred bright, eager student-teachers in a college in the Middle East, Vera and I talked about these changes. And then we put them into play. In a society that has no public performance of music, I pulled out a...
flute and the students became enchanted. Then we used some basic music facilitation techniques and everyone became part of the music – a hundred-student jam session where many had never before made collective music. Our interpreter, who was also their regular professor, was jumping up and down yelling “Yes, Yes, this is what we need!”

The ability of the instrument to enchant, and the fact that it’s so easy to play, make the Native American flute a fantastic tool for humanistic approaches to music education. Personally, I hope this role for the instrument will grow dramatically in the coming years and provide a much-needed shift in the way we approach music-making across our society.
Part 2 – Flute Circle Facilitation
Flute Haven web site:  
http://www.FluteHaven.com/  

Flute Haven Leadership program:  
http://www.FluteHaven.com/program_leadership.htm
What Is Our Job Title?

The role we play is often shaped by what we call ourselves: Leader, Teacher, Instructor, or Organizer. We can sidestep the question with humor by labeling ourselves as “Czar” or “Chief cook-and-bottle-washer”. Or, we can make a very firm statement, such as “Professor”.

Teaching in Western education traditions is done primarily through lecturing. Since the lecturing approach carries a large element of performance, and musicians are often comfortable with performing, many music educators naturally take to the role of “Lecturer” with a heavy dose of “Performer” to keep students engaged.

However, the real goal of humanistic teaching traditions is to move the “center-stage” focus, as much as possible, away from us and onto the participants. In education, and especially in music, we know that engagement of the participants is what creates enjoyment. This approach opens the door to real learning. It also shifts us from “Sage-on-the-stage” to “Guide-on-the-side”.

While Vera and I worked for a coffee plantation in Honduras, we were invited to lead workshops on improvisation at a local music school. That was such an amazing opportunity! We met with the Dean, who took us to our first session. A cavernous performance space was filled with about 35 students sitting in a large circle, all of whom had an instrument. There was an aura of excitement and expectation that something unusual was about to happen.

This chapter was written by Clint Goss and edited by Kathleen Joyce-Grendahl. A similar article appeared in the May 2013 issue of *Overtones*, pages 15–17, published by the WORLD FLUTE SOCIETY.
The situation could not have been a more perfect … with one exception …

The school had developed a six-page, typewritten introduction of “Profesores Doctor Goss y Shanov”, to be read, in its entirety, before the start of the session. We had a vision of all that great energy and excitement being doused by a recitation of our resumes. From across the circle, Vera flashed me our secret, one-eyebrow signal for “this might not go so well”. So I took a gamble and suggested to the Dean that I could lead off with a group music warm-up to get them “settled”. Before he could object, we launched into physical, then vocal, and then instrumental warm-ups.

We moved on to call-and-response and within ten minutes they were deeply engaged in group call-and-response games – without any leadership cues from “los profesores”. By the end of the session we progressed to ensemble groups improvising over blues progressions. And somehow, we forgot to work in those typewritten introductions!

In the discussion after our first session, the Dean exclaimed in a mix of English and Spanish: “It was all so facil – so easy!” And there it was – the root of our job title: Facilitators.
That’s OK, Clint

“That’s OK, Clint ... So ... Could you sit under that tree for a few minutes, listen to the sounds, and try to make your flute sound like the birds.”

This suggestion by Malcolm Shute is the reason I’m here now, 12 years later, making music, facilitating workshops, writing this column. But even more than the suggestion to sit under a tree and make bird sounds, it was the acceptance of where I was at that point in my music journey ... the simple statement: “That’s OK, Clint”.

I was six weeks into my flute journey at the time. The first three weeks had been spent agonizing over whether to drive four hours back up to Vermont to buy my first flute. The next three weeks were spent in head-space hell.

Information on how to play a Native American flute was not readily available at the time. No problem! I had played clarinet in high school and generally considered myself a “smart guy”.

My goal was to play Battle Hymn of the Republic on my beautiful new five-hole instrument. So, I dug out an ancient frequency meter from Vera’s father (he was an engineer) and I set about measuring the frequency of each of the possible combinations of open and closed holes on a five-hole flute (that’s $2^5 = 32$ possibilities). Add in a few measurements for half-holed fingerings and notes in the second register that seemed to work, add them to a spreadsheet with some tables and code to convert the frequency measurements into musical pitches, and … presto … my first achievement: a fingering chart (shown below).

The next step was to map those fingerings onto sheet music for Battle Hymn of the Republic and begin practicing. And practicing. And more practicing. My fingers were going up and down like pistons and everything about my playing

This chapter was written by Clint Goss. A similar article appeared in the May 2014 issue of Overtones, pages 25–27, published by the WORLD FLUTE SOCIETY.
was mechanical, but this was the way you learned to play, right?

I would occasionally emerge from practicing in our basement and Vera would say “Hey, you know when you just play the thing, it sounds pretty good. But I don’t know about that Battle Hymn song …” But what did she know? She’s not Paul Simon, right?

Then I came across an announcement for a meeting of the Connecticut Flute Circle, hosted by Malcolm Shute. I showed up at a café in West Hartford with my flute, my spreadsheets, and my long-winded explanation and analysis. I’m guessing that, in any other endeavor or avocation, I would have been ridiculed into embarrassment, resulting in a swift retreat from ever wanting to play music ever again. But that’s not the culture of community music and of this instrument. “Support your fellow traveler, wherever they are in their journey” seems to be the best encapsulation of what happened that day.

So I came back from that tree a half hour later and Malcolm said “Play us something, Clint … anything”.

I don’t know what I played, but the café was briefly silent when I finished. That pause, that momentary heart-space silence, taught me more about my own playing than any “how-to” coaching.

**Acceptance**

Putting the lessons of acceptance and no-judgment into action can be challenging. We live in a judgment-rich culture, complete with performance criteria, judges, ratings, and prizes. Actually accepting the sounds of beginning players becomes a game of figuring out what musical activity they can handle and what exercise will benefit their music the most. Converting an impulse of “that sounds awful” into “hey, try this” requires of facilitators that we have a lot of “this”s to put into practice. One of the goals of the latter half of this handbook is to provide activities and exercises that you can call upon in a wide array of situations.
Imagine you are in the middle of facilitating the most perfect flute circle. Close your eyes for a moment and picture it, in as much detail as possible. Visualize the setting, with its lighting, furnishings, colors, and acoustics. And see the participants, who are engaged in the most perfect flute circle activity, joined in group cohesion, entrainment, and resonance.

It’s likely that the flute players in your flute circle or workshop arrive from different places, with a wide variety of instruments, musical experience, expectations, and confidence. Leading such a varied group of musicians to a place of group cohesion may sound like a big task, but there are some simple techniques and activities to channel the musical energy of almost any group into alignment.

The first time somebody let me lead a flute circle, I didn’t think about group energy. I didn’t think about much of anything, actually – I just launched into … a monologue. Clint’s history, what the instrument means to Clint, how Clint likes to play, etc., etc., etc., and before I knew it the time had expired without anyone breathing into their flutes. People smiled politely and we all ate pizza.

Thankfully, exactly one week later, I was treated to a session led by a true master of music facilitation. He morphed a room full of musicians from very disparate backgrounds (and lots of chatty energy) into a tight circle entrained to a common rhythm and singing in four-part harmony. In five minutes flat. The unity of the group held for the next hour as we toured musical rhythms, techniques, and song forms that were all new to me, but that somehow seemed completely easy and natural.

The magic of that first experience with cohesive community music-making burned a special pathway in my brain. I wanted more of it. I needed it. I also wanted to roll back the clock to the week before and replace my monologue with that cool stuff called music facilitation.

It was clear that a key component of the session had been the first five minutes of “warming up”. I later learned that effective ways to open a music session have been studied by music facilitators for decades. Here are the basic principles that seem to be at the core of all the schools of thought and research in music facilitation:

This chapter was written by Clint Goss. A similar article is scheduled to appear in the August 2014 issue of Overtones, published by the WORLD FLUTE SOCIETY.
The Warm-up Outline

Regardless of what instrument the participants play, the outline of a warm-up is the same: Body, then Voice, then Instrument.

Beginning with the body gets the participants out of “head-space”, activates muscle groups specific to music making, begins to incorporate rhythm, and brings in the benefits of mild exercise and oxygenation.

You might start with some stretches in a free-form way that allows people to stretch in their own way and to their own physical limits and capabilities. You could show some stretches that work for you and invite others to briefly demonstrate their favorite stretches.

You can take the physical warm-up in many directions. Think for a minute about how you might include balance, rhythm, breathing, dramatic and emotive body movements, echoing, listening, energy build-up and release. Here are some things you might try:

- “Air flute” – play the virtual flute in front of you – as fast or as wild as you want;
- “There’s a new instrument under your seat” – you have cleverly placed a shaker or other noisemaker under each seat.
- Exaggerated breathing. Rhythmic breaths, accompanied by emphasis on different parts of the breath cycle.
- Doing stretches while balancing on one or the other foot.
- Engaging in some repetitive motion, like making circles with your shoulders or tapping your chest while doing other stretches.
- Exaggerated facial motions.
- Movements loosely based on some movement practice, such as Tai Chi, Chi
Gong, classical ballet, or ballroom or Latin dance.

- Simple body percussion exercises. You could do a straightforward 4-beat rhythm alternating foot tapping with hand clapping.
- Free dance, especially over a repetitive backing track, possibly with a participant playing a flute playing on top.

Another approach is to start from rhythm. Establish a slow, steady downbeat using a motion such as tapping the chest, snapping fingers, or slapping the thighs. Allow time for everyone to get comfortable with the motion, adding a low drum, breathing, body motion, or the voice to reinforce the down beats. You can then incorporate elements involving other body parts, playing double-time or half-time, accenting random beats, changing volume, improvisation between the downbeats, or any of the elements mentioned above.

You could also choose to do the entire warm-up rhythmically using a recorded backing track or a live group that is playing a basic repeating rhythm.

It is a good idea to make physical motions as bilateral as possible. “Switch Hands” is a great directive for any activity that tends to be one-sided, such as using a shaker.

It is also important to emphasize early in the session that people can participate in the warm-up any way they like. People can do the entire warm-up seated or even on the floor, allowing elders and people with physical disabilities to be included.

**The Voice**

Incorporating the voice is a key element in all musician warm-ups that we do. To avoid deep-set feeling of “I can’t sing” that some musicians carry, try to incorporate vocal exercises that do not require people to match a specific pitch or sing a particular melody, especially if they would be exposed or singing solo.

You could shadow any of the body/physical exercises mentioned above, especially those that involve rhythm. You could move from breathing in time to a rhythmic activity to “adding any sound on your voice”. You can then get more specific by introducing articulation (“short, sharp sounds”), pitch (“high sounds” or “lowwww sounds”), texture (“nasal” or “breathy”), or dynamics (“soft, like talking to a baby” or “shout across to the next mountain”). Here are some other vocal warm-up techniques:

**Call and Response**: Shout out your best version of a call such as “Dayyy Ohhh”, “Ding Dah TaKi Tah”, or (my personal favorite) “Wop Bah BaLoo Bop / Ba Lam Bam Boom”. These calls beg a response, and it seems that people from every culture, whether or not they speak your language, have the impulse to echo back such a call.

**Babbling / gibberish**: this is a great way to loosen people up with some silliness (of course, in a safe space where people won’t be observed or recorded). It literally involves babbling in any way that suits you … nonsense syllables at any volume, speed, pitch, or style. You can have everyone babble at once, form impromptu babbling groups, conduct the babbling group with simple hand motions for “louder” and “softer”, or even get participants to briefly conduct the group.

**The Name Game**: This is great for a newly formed group. The game involves each person calling their own name, in whatever way or
style that suits them. The job of the group is to
call it back to the person in exactly the same
way, emulating volume, texture, and even body
motions. Of course, you model the game first,
doing several calls of your own name (with
group responses) in various styles, before
asking others to give it a try.

**Instrument**

You might be thinking that all the above would
take a long time before we get to playing flute.
However, these exercises are quick and you
might find that you have everyone reaching for
their flutes after only a few minutes.

You can transition into instruments by having
them echo something that was done on the
voice. Vocal articulation (e.g. “Ta Ta TaKa
Tah”) can move nicely onto short notes on the
flute. Likewise with long tones, especially if
everyone has the same key flute.

Unless it is a very large group, it is often a good
thing to have everyone play something solo on
their flute. We often ask that each participant in
the circle play a “one-breath” or “two-breath
solo”. This activity takes no explanation and
carries an implicit time limit. To remove as
much pressure as possible, reinforce that
anything they play is fine, we’re just putting out
our sounds, the game is not to be fancy, there is
nobody to impress, and there is no judgment in
the room. One note is just perfect.

And, of course, you model the activity yourself
before asking others to give it a try.

**Large Sessions**

Bringing a large group into cohesion can be
challenging. People are chatting with friends,
tooting on flutes, sipping coffee, and

communicating around the globe on all flavors
of devices. The classic “OK EVERYBODY
SHUT UP BECAUSE WE’RE STARTING
NOW” can really dampen all that great energy.
It’s much better to channel that energy into
making music.

You might enlist the help of some participants
by stationing them around the room on some
large, low drums. Leading them in a steady,
simple beat can gently break into people’s
consciousness and steer it towards music-
making.

Engaging the hands of participants can gently
re-direct them from other activities. If you have
a bag of small shakers, hand them out to
participants. Attention across the room
gradually shifts to the new instrument in their
hand, as people start using their shakers in
rhythm.

You could also focus people with some Call
and Response, as described above. There is
nothing like a loud “Dayyy Ohhh” to capture
people’s attention.

**Matching the Energy**

Of course, you need to use the warm-up
techniques and energy to suit the situation. If
the intent of the gathering (flute circle or
otherwise) is to memorialize a person, imagine
those elements that can build group cohesion in
an appropriate way for the situation. You might
start with a steady drum beat and ask people to
join with open palms on their chest. You could
then add some deep breathing and move into
having people emphasize the texture wind-like
sounds of their exhales. Then, over the top, a
flute playing Amazing Grace …
Another grounding style of warm-up is to lead the group in a series of “OM” chants, beginning softly and then building the energy as people get warmed up and gain confidence.

And finally … these beautiful thoughts on warming up, from cellist Emily Metcalf (from Return to Child, by James Oshinsky, 2008):

*Step into the sacred space where you make music and listen. Listen to the sounds that enter the space, listen to the chatter in your head, listen to your heart beating, and breathe. As you breathe, become aware of your body and how it wants to move.*

*Move. Begin to vocalize through your breath. This is a place to play freely in the moment of yourself. If you have a lot of scattered energy you may need to jump around and vocalize a lot before you find a focused place. If you are feeling subdued, you may move slowly and sing more quietly until your energy builds and a flow is created.*

*Your intention here is to feel as fully alive and present in the moment as you can with the readiness to explore all possibilities. You have already taken the most important step – you are showing up. Release expectation and return to child every day. How am I feeling right now? What do I want to express? You may not have answers for these questions, but your body and your voice will connect you.*

*Enjoy your capacity to move, the rhythm and phrasing of engaging with the space around you. Love your voice and the humanness that moves through you. Babble like a baby or in a foreign language you don’t know. Shout, whisper, sing about everything.*
Deep Listening

Deep Listening is listening in every possible way, to everything that is possible to hear, no matter what you are doing. Such intense listening includes the sounds of daily life, of nature, or one’s own thoughts as well as musical sounds. Deep Listening represents a heightened state of awareness and connects to all that there is.

– Pauline Oliveros, the Deep Listening Institute

It is often said by experienced musicians that the most important instrument we have is not made of wood or leather or metal – our most important instrument is our ears. Listening – real, deep listening – is a mindset, an approach to our sensory world, a “practice” in the same sense as Yoga or Tai Chi or Zazen.

The environment that many of us inhabit brings special challenges for the practice of deep listening. Noise pollution, commercial advertising, and “LOUD LOUD LOUD” music all conspire to drown out the subtle sounds, the softer textures, and the mild voices. And when the sound we hear is our own music-making, listening is often filtered through the past judgments of others – voices that can easily out-shout the true nature of the sounds we make.

As facilitators, I believe it is our job to lead the participants at our gatherings into deep listening experiences. Listening with open ears and clear minds, free from judgment, and a focus on the “sound of sound”. This article describes some of the activities I have found along the way that

This chapter was written by Clint Goss. A similar article is scheduled to appear in the November 2014 issue of Overtones, published by the WORLD FLUTE SOCIETY.
connect participants with sound and encourage deep listening experiences.

**Focus**

Take a sonic event and repeat it. It could be a participant’s one-breath solo, a short reading, a recording you play, or any of the activities in this article. On the second listening, ask participants to do something that causes them to naturally focus their listening:

- Ask them to close their eyes and note how the experience changes.
- Ask them to cup their hands behind their ears, exploring how the sound changes as they change the shape of their hands.
- Ask them to slowly rotate their head and be aware of how the stereo nature of the sound changes. This includes rotating completely 180° away from the source of the sound and comparing it with facing the sound source.
- Have them move slowly and noiselessly around the room and explore the room acoustics.

Periodically using these small, auxiliary exercises can carry forward into the daily lives of your participants.

**Ambient Sounds**

Sit in silence and listen. What do you hear? Stretch the ears out to the sonic horizon and try to pick out sounds.

What is the building saying? Can you hear birds? An airplane in the distance? A couple arguing?

Close your eyes and deepen the experience. What is the lowest frequency sound you can hear? Highest? Softest?

If you are in a classroom setting, with pen and paper handy, have them write down every sound they hear.

**Readings on Listening**

You could emphasize the listening experience with an inspirational reading, such as the quote at the beginning of this article. Here is another one I like: “The Sound Horizon”, from *The Listening Book* by W. A. Mathieu:

*Listening into the distance is like looking into the horizon. When we gaze at the horizon, our vision goes beyond our eyes and sees forever. When we listening into the distance, our ears reach beyond the farthest sounds and the infinite becomes sensible. We get a fix on our position in the boundless world.*

*The alternative is like being stuck in traffic and never sensing beyond the stream of it. We begin to think like cars. It is like staying cooped up indoors with no windows. We need the big picture and the long radius. We need to check out the long range coordinates.*

*Go out of your way, if you have to, to look steady and long at the place where Earth and Sky meet. Likewise, discover places where your ears can soar out to the edge of audibility. Find a lull in the evening, a valley, a distant remove, a quiet dawn, and listen into that boundary. You can disappear beyond it where you really live.*
Your Own Body

Place your fingers (carefully) in your ears. What do you hear?

The sound of your own muscles vibrating. Make very small movements and note the change in sound. Now stay still, but tense your hand muscles. Can you hear them? Can you hear your heart beat? What is the sound of your breathing through your mouth versus your nose?

Silence

One of the casualties of our contemporary auditory world is silence. It is often a key ingredient lacking in music.

Explore bringing silence into music by demonstrating a comparison between continuous flute playing and the same melody with spaces of silence.

In the context of group conducting, include an occasional “stop / cut” where you silence everyone and then bring them back in on cue.

In a rhythmic activity, you could establish a continuous percussion rhythm and ask a flute to play over the top. Then modify the rhythm by silencing a significant portion of the rhythmic cycle and again ask the flute to play. What difference do you hear?

Hearing Your Own Flute

In a cruel twist of irony, we are often in the worst position to hear our own playing. Our instruments project our sound out and away from us, leaving our own ears in an acoustic dead spot. Here are a few facilitation techniques that can have a dramatic effect on how participants hear their own playing.

A simple sound system setup that has good quality headphones can be enlightening for a person who has never heard their own playing. It helps to have closed-cell headphones, which block out as much of the ambient sound as possible. If the system also has digital effects such as reverb or echo, your participants are in for a real treat. There are many types of sound systems, but one that simply has a microphone, mixer, and headphones is sufficient for this exercise.

However, it does not take a sound system to hear yourself better. Simply ask people to play with the foot of their flute up against a wall. Warn them to be very careful whenever doing this – if they hit the foot of the flute
against anything they can knock their teeth out (or worse). Open their ears to the sound reflecting off the wall and they will hear their own flute playing much more clearly.

**Loop Pedal**

If you are savvy with audio gear and have a loop pedal at your disposal, it can serve as a great listening tool, especially if it has an “Undo” function.

Lay down a basic rhythm loop and invite people to experiment with adding various sounds over the top. Solicit reactions from the group, encouraging people to be open and non-judgmental. What works? How sparse does a layer have to be? How do the pitch ranges of various layers compete or complement each other? How do the elements of music – melody, harmony, rhythm, texture, and silence – work with each other to make a complete soundscape?

If possible, download the group’s creation and email it to people.

And, of course, play flute over the top!

**Pre-Whistle**

Using an extremely soft breath pressure, you can coax many flutes to make a soft, high-pitched whistle. This “pre-whistle” is the sound vibration at the sound hole without the entire column of air in the sound chamber vibrating.

You can position this exercise as a performance technique (“crank up the amplifier and add echo and fill the room with the sounds of birds”) or as part of a demonstration of how flute acoustics work. However, since the sound is so quiet and high-pitched, it quickly becomes a deep listening exercise.

**Resonance**

Enclosed spaces naturally enhance a vibration – if you find the right frequency (or pitch). The effect is stronger in rooms with right angles and hard, smooth surfaces such as tile bathrooms and stairwells.

Engage your group in a “sirening” exercise – a vocal emulation of an ambulance or fire-engine. You can easily do this during a vocal warm-up. After they experience rapidly sirening up and down, have them slow down the siren so that the pitch changes very slowly … maybe covering an octave in 10 or 20 seconds.

Then, before a break, suggest that they find an enclosed space that is likely to be resonant, and siren their voice to find the pitch that resonates in the space.

**Sympathetic Vibrations**

Sound has power. The flute translates your breath pressure into moving waves of air pressure. The power in those waves can move objects in the room, causing them to vibrate with the sound of the flute.

As with the resonance exercise above, ask them to try to find the resonant frequency of a large drum or the body of a guitar or cello by sirening.

**Pitch Matching**

Now move the sirening experience to the flute. Hold any long tone and hum into the flute. Siren the pitch of your hum from low to high and listen for the resonance between your humming and the vibration in the sound chamber of the flute. Explore raising your humming pitch very slightly and then bringing
it back down into perfect resonance with the flute.

Aside from a deep listening exercise, this approach to matching pitch is one of the best (and least threatening) ways to encourage people to vocalize a given pitch.

**Found Object Percussion**

Lastly, here is an exercise that has to be used with caution. Invite participants to experiment with objects in the room, tapping and drumming out various sounds. Encourage people to tease out ultra-low vibrations, texture sounds, and sounds across the range of volumes.

After listening to each of the sounds individually, you can conduct a “found object ensemble” and add a flute over the top for good measure.
Modeling

Call on a student and you put them on the spot. Call on a student musician, especially one with little experience and loads of self-doubt, and you have a recipe for a lifelong vow of “I am never doing this again”. As facilitators, we could literally cause a participant to shut the door on their own musicality. Forever.

Fortunately, we have a lot of tools to avoid this class of disasters. Following humanistic tradition of “success for all”, we keep the things we ask of participants small and manageable. We repeatedly reinforce that there is no judgment and accept what sounds he or she is able to produce. We also frequently have everyone in the group try his or her hand at each technique.

But, before we ask anyone to try an exercise or technique in front of others, we model it ourselves. This principle of modeling is so important that, if I am ever about to forget it and accidentally ask a workshop participant to do something that I have not demonstrated, my sidekick in a session, typically Vera, is free to blurt out “... as Clint will now demonstrate first ...”

Modeling a technique has huge benefits for the participants. It can:

- illustrate what is expected,
- release tension,
- entertain,
- demonstrate a wide range of options and interpretations, and even
- allow them to use another instrument – such as their voice or perhaps body percussion – to play their part.

However, one of the most significant advantages of modeling is that it demonstrates how little is truly needed. Modeling is not the time to show off your exquisite skill on the instrument; rather, it is an opportunity to

This chapter was written by Clint Goss and edited by Kathleen Joyce-Grendahl. A similar article appeared in the May 2013 issue of Overtones, pages 15–17, published by the WORLD FLUTE SOCIETY.
demonstrate some very simple playing technique can be rendered so musically powerful by these song sticks that we carry.

This excerpt from *Return to Child*, ([Oshinsky 2008], page 76), describes some related aspects:

*The leader is a model of competence in musical and non-musical areas. This is equally true when you are modeling something on purpose, and when you are just being yourself, with no intention to be noticed. A leader is therefore always “on,” and cannot get away with saying, “do as I say, not as I do.” The best preparation for modeling is to live what you teach. Humanistic skills are more important than musical skills for fostering personal growth, so leaders who are less experienced in music, but more skilled in group dynamics need not be apologetic about their backgrounds ...*

Notice how modeling is carefully woven into the facilitation form described in the next chapter, duets and trios that move around a circle of players.

Rounding the Circle

This is a wonderful facilitation technique for small groups. It goes by many names: traveling duets, traveling trios, and moving or roving ensembles.

Let’s say the flute circle has five participants and you are facilitating from position A. The idea is to have participants play in ensembles (duets, in this example) that continuously move around the circle. Each neighboring pair of participants gets to play a short duet.

You could suggest a particular song-form for the activity, but that assumes that people are familiar with the song-form from a previous activity. For this example, let’s leave the song-form unspecified, or tell folks, if they ask, that these are “free-form duets”.

A critical point in the whole exercise is how to convey the idea and the details of the traveling duet to participants in the circle. The essential concept is simple, but a verbal description is likely to raise a lot of questions, confusion, and “head-space angst”. Instead of a lengthy verbal description, you can model it:

- You invite participant E to play “any short solo”. I often use the phrase “one-breath solo” to convey an appropriate length.
- You respond to E’s solo with a solo of a similar length and then pantomime to E to play another such solo.
- You can go back and forth for several rounds. The result is often that E–A duet

This first portion of this chapter was written by Clint Goss and edited by Kathleen Joyce-Grendahl. A similar article appeared in the May 2013 issue of Overtones, pages 15–17, published by the WORLD FLUTE SOCIETY. The second portion of this chapter, Duet Forms, is from a similar article that appeared in Clint & Vera’s Flute Newsletter, February 2014.
becomes an impromptu call-and-response song form.

- Then, after one of your responses, you turn to B and begin a new call-and-response duet in the same fashion.
- When it is time for the B–C duet, B might need some coaching to start a new duet with C. However, at this point you can use physical conducting to coach them.
- After it gets around to C–D or D–E, participants will usually get the idea and be able to carry on themselves, with little intervention.

Notice how much territory is being covered here. Not only the idea of a moving duet, but the concept of the call-and-response song form – all done with very little verbal description. A major goal when facilitating musical activities is to minimize verbal description and maximize direct experience. With a combination of room setup, creative pantomime, conducting skills, and your own musicality, you can keep people out of “head-space” and maximize the group’s enjoyment. Then you can post-process the activity with “What we were doing is called ...”

The facilitation form of going around the circle is useful in many contexts. In the example above, it doubled as a teaching exercise for call-and-response. However, if someone does not “get” the call-and-response aspect, say a beginner who is simply struggling to cover some finger holes, then the form falls back to a “free-form duet” where any sounds they produce are encouraged.

In a more structured teaching situation, when you know the capabilities of the group, you could use this to teach any duet or trio song form: solo-over-drone, melody-and-rhythm, playing over a two-chord vamp, blues progressions, etc.

Another context that many flute players are working towards is a public performance. If there is interest for this in the group, you could illustrate how to use a traveling duet format to open their own five-person concert: house lights down and one player steps into a spotlight with a short flute solo. Another player responds from the back of the room, walking up the aisle onto the stage as they exchange a few phrases. Maybe the third player begins from a seat in the middle of the audience. Is there a balcony above the stage? Maybe a trap door on the stage? Maybe the last person in the group could play from inside a box on stage that the other musicians have to unwrap. As R. Carlos Nakai once advised an eager group of flute players: “Be the entertainer, be the clown, capture their wonder.”
The goal of all the activities we facilitate is to leverage the power of simple song forms and ensemble structures to increase the musical potential of everyone in the group. This gives participants simple tools to help integrate their musicality into other aspects of their lives.

**Duet Forms**

Introducing flute duets with the concept of “free-form” is a great device for avoiding head-space crisis. But once participants are comfortable with playing duets around a circle, you might introduce some of the basic duet forms as specific techniques.

**Call and Response**

One flute calls a short melodic phrase. You could encourage people to use a shorter version of the **One-Breath Solo** technique described on page 13. The second flute responds with the same phrase.

This form has a whole lot of uses! First of all, in workshops as a listening exercise, people begin opening their ears and connecting pitches to finger positions. This has a huge benefit when people attempt to play a song “by ear”. Second, it gives players the practical experience of recalling short melodic phrases and being able to repeat them - a key building block to improvising compositions that have some song structure, such as **AABA**.

Call and response can be used between players on the same key flute, the same key an octave apart, or even flute pairs that are a musical fifth apart, such as E and B, F# and C#, G and D, and A and E.

It's also a cool technique that can be used in performance - imagine the opening of a concert when flutes call and respond back and forth across the venue and over the top of the audience …

**Conversations**

This is a great technique for flutes in different (and arbitrary) keys. We introduce it in workshops by having players start with an English-language conversation, and then transitioning that into flute conversations. Flutes take turns “playing sentences” – basic sentences at first, but adding emotional content as the game goes on.

**Solo over Drone**

A classic world music song form. A drone is simply a long held tone. The job of one flute is to simply hold a steady tone, typically a low tone and typically at a softer volume (for the other flute to play a melody over).

One of the most beautiful examples I know of Solo over Drone is from the Armenian duduk tradition … take a quick search on YouTube for Djivan Gasparyan playing **I Will Not Be Sad In This World**.

**Solo over Ostinato**

An Ostinato is literally a repeated pattern.

In **The Rhythm Connection** on page 29, we explored playing over rhythms created on rhythm instruments – a classic repeated pattern. However, it's easy to create simple repeated patterns on flutes – even a “**Ta Ta Ta …**” or chirps will create a rhythm, or a very simple melodic repeated pattern.

**Alternating Solos**

Finally, you can turn any of the duet forms into a form that alternately highlights each of the flutes on a solo. For example, in the Solo over Drone form, each player can take turns soloing over the drone note and then holding the drone note for the other player to solo over.

I hope you can put some of these forms to use in your next flute circle or performance … As
always, feedback you might have on these approaches is welcome!
A Bill of Musical Rights

- Human beings need to express themselves daily in a way that invites physical and emotional release.

- Musical self-expression is a joyful and healthy means of communication available to absolutely everyone.

- There are as many different ways to make music as there are people.

- The human voice is the most natural and powerful vehicle for musical self-expression.

- The differences in our voices add richness and depth to music.

- Sincerely expressed emotion is at the root of meaningful musical expression.

- Your music is more authentically expressed when your body is involved in your musical expression.

- The European tradition of music is only one sound. All other cultures and traditions deserve equal attention.

- Any combination of people and instruments can make music together.

- There are no unmusical people, only those with no musical experience.

- Music improvisation is a unique and positive way to build skills for life expression.

- In improvisation as in life, we must be responsible for the vibrations we send one another.

This Bill of Musical Rights was developed by the Music for People organization. It is excerpted from *Return to Child*, ([Oshinsky 2008], page 17). ©2004 Music for People, used by permission.
Success for All

I am standing, flute in hand, frozen in fear. The large third-grade class seated in front of me has just seen several great presentations by flute players, didgeridoo players, and storytellers. And then: “Clint ... you’re ON!”

This was early in my flute journey and my experience on the Native American flute was very limited. After playing for only a few months, I had arrived at my first large flute gathering, FLUTE SPRING, organized by Jan Kirlew. When we all headed out to a local school one afternoon, it did not occur to me that everyone would be giving presentations to various classes. The fear of performing did not cause me to freeze; rather, it was simply the lack of any idea about what I might say or do with a class of third-graders.

Suddenly, in a fantastic display of facilitation skill, Jesse Redhorse stepped up from behind me and announced to the class, “One of the great traditions we have is playing these song sticks with a drum.” He handed me a frame drum and beater and whispered “just watch my foot, beat the drum, and don’t stop”. He started with a slow, exaggerated foot-stepping motion that made it very easy for me to follow on the drum. When he saw that I was able to keep a reasonably steady beat, he gradually reduced his foot motions to a toe-tap and started to play his flute. Over the course of a few minutes, he had everyone in the room join in with foot-tapping, rhythmic clapping, and producing wind sounds with their breath.

This experience became my first shining example of facilitation. It incorporated multiple elements of music, such as melody, rhythm, and...
texture, the participation of everyone in the room, and group conducting of an improvised piece. Jesse also “facilitated” me in a way that I could not fail, thereby setting up a structure that provided “success for all”.

The “Non-Player” Brigade
You have probably seen them: the folks who show up at flute events in support of their spouse / partner / friend, declaring that they don’t play, aren’t musical, and are there just to watch. Maybe they knit, record a video, or text on their phone.

Over the years, I have made it my personal mission to involve these people. Trying to develop a collection of techniques for these situations provides a particular challenge. These “non-players” may be resistant to becoming involved in the music, and probably have built up a self-perception of musical incompetence.

The following ideas illustrate a few activities to help get everyone involved in the music:

Warming Up
At the start of a session, I ask everyone in the room to join the warm-up routine. This typically involves stretching, rhythmic body movements, deep breaths, sighing and vocalizing, mouth articulation, and vocal long tones. These are the types of activities that warm up the muscles and dispel some of the anxiety we all have about playing in front of others.

Instruments that Always Work
Having a collection of instruments in the room that are easy to play and produce great sounds is one of the hallmarks of almost every early childhood music program. Many instruments with pentatonic tuning will work nicely, especially tongue drums, resonant metal drums, and metallophones. Of course, many types of drums, especially those with beaters, can also spark spontaneous music.

When we facilitate a session, we set the room up so that the chairs are in a circle, with instruments in the middle of the circle. As people arrive, I encourage them to experiment with the instruments. If I leave the room for a few minutes, I often find that there is a spontaneous jam going on when I return. With a bit of group conducting, I can often build on

3 See the Warming Up chapter on page 85.

4 Any musical instrument that has tuned metal bars that must be struck to make a sound, usually with a mallet, is called a metallophone.
that jam, add a flute solo over the top. Viola! The “non-players” are part of the music!

Another technique we use is to place a small instrument under everyone’s chair. My experience is that the folks who have been sitting and watching are the first to dive under their chairs when I say “Everyone has a new instrument under their chair”.

Drone Instruments
Sometimes a bit more encouragement is needed to get the non-players involved. Easy-to-play drone instruments can be great for this purpose. These instruments play a single, long-held note or chord and often work beautifully as an accompaniment to the flute.

I often use a shruti box, which is an East Indian instrument that combines a “squeeze-box” mechanism with levers that can be opened to play combinations of notes. I start on the shruti box as others play flute over the top. Next, while the music is playing, I offer the shruti box to one of the non-players. The transition is key here, and I have practiced a long time with exactly how to place the instrument in his or her hand while at the same time showing them the squeeze motion that will keep the shruti box playing. If I do it successfully, we are often rewarded with a person who falls in love with the musical sound that he or she is making, maybe for the first time in their lives.

Drone instruments can create the opportunity for participants to play duets with people who have more musical experience. In a Texas concert with world flutist Peter Phippen and Australian didgeridoo player Ash Dargan, we were joined by Dr. Stephen Mittelstet, the president of Richland College. Peter had the idea to start the concert with a dark stage, bringing the lights up underneath a set of resonant crystal bowls played by Dr. Mittelstet. The bowls, together with an experienced sound engineer, filled the hall with a cascade of consonant vibrations, creating the perfect backdrop for a fifteen-minute opening jam.

Duets
In what other ways can a “non-player” participate? A few casual questions might unlock some new duet possibilities.

People who like dance, Tai Chi, storytelling, or theater improvisation make great duet partners for flute players. If no obvious duet possibilities pop up, you can always pull out a set of poetry.

There are many ways to incorporate poetry into a session. For example, set up one or more pairs of chairs in the center of the circle for poet-flute duets. Invite non-players to try a duet with a flute player. That flute player could be their partner or another flute player in the circle. It is interesting to see the differences in the dynamics between duet pairs who know each other and those that have just met.

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\(^5\) A list of readings and poems is available on Flutopedia at [http://www.flutopedia.com/literature.htm](http://www.flutopedia.com/literature.htm)
Another approach is to have different flute players around the circle respond in between lines or paragraphs of poetry read by one non-player. The poetry reader can walk around in the center of the circle, moving from one player to another. It helps if the poetry or story being read changes emotions or character frequently, which will allow for varied musical reactions from the flute players.

These playful workshop constructs can have profound effects on the people who are exposed to them for the first time, opening up possibilities to perform together in settings that they had not considered. Try some of the readings of the 13th century Persian poet Rumi, song lyrics such as Dave Carter’s “When I Go”, or alternating the words and melody of “Amazing Grace”, and the ideas start to materialize⁶.

As an experiment, try to imagine playing flute at a memorial service to this English translation by Daisetz Teitaro Suzuki of an ancient Zen poem:

```
Behold she was here a while ago.
Now she is no more to be seen.

She flies over the mountains
Her voice echoes through the valleys

She has vanished to this land of
Nowhere
```

I believe that one of the main goals in community-based music gatherings is that every person at the gathering gets to express his or her sounds in an open and accepting environment. When we, the facilitators, work to develop techniques to make that happen, then we become practitioners of the “success for all” philosophy.

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⁶ Several poems for memorial services are published on Flutopedia at http://www.Flutopedia.com/lit_memorial.htm
What do participants at a flute circle want from their gatherings? The answers are certainly different for each person. But the more I do this work, the more I believe that many participants have a deep desire to play with other musicians. Even for those who primarily play Native flutes as a solo instrument, the thought of jamming with others, engaging in musical conversations, and creating songs with more musical elements can truly be enticing. And flute circles are a great place to explore ensemble playing.

However, I found that learning to facilitate group ensembles is much more difficult than actually playing in them! My early attempts in 2003 used the all-time worst approach for music facilitators: verbal explanations of how I jammed with percussionists and keyboard players. That approach failed dismally. (Note to self: demonstrate – don’t explain). I regrouped and progressed to setting up real-life performance situations for four players, including a stage and microphones. This was an improvement, but half the participants just wanted to try playing with others and were put off by the similarity to a scary music performance scenario!

By 2005, Vera and I had progressed to using a structure developed by the Music for People group that involved four musicians sitting in a tight circle. This format seems to create focus in the group. Since two pairs of participants are sitting directly across from each other, listening is increased and the players’ awareness of observers outside the foursome is reduced. None of the participants were put off by the setup, but the results were not always satisfying or musical. The real problem was that everyone was playing a flute.

The Elements of Music
If you ask a room full of flute players to play something, each person will probably all pick up his or her flute. However, from a music-making perspective, a contrast of different components of music often more satisfying to

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the ear. So, we convert the ensemble exercise into an exploration of the elements of music.

What exactly are the elements of music? The answer, at least for promoting musical ensembles, is simple: melody, harmony, rhythm, and texture. And remembering my “note-to-self” reminder, I help the participants explore these four music elements with demonstrations.

In each of the sections below, there is a description of the element and a corresponding demonstration technique that can be used to convey the concept with few words. Of course, the demonstration provides a far more direct learning experience, and the descriptions are only provided within the context of this chapter.

**What is Melody?**

**Description:** Melody is defined as a “linear progression of musical tones that the listener aurally categorizes as a single entity.” The definition does not include a qualitative concept. What one hears as a pleasant melody may not be heard as such by someone else. Therefore, a melody is simply a series of musical notes rhythmically organized into a sequence or idea that is recognized by the listener as being logical important, and memorable. Melody is an aspect of music that is usually most appealing and what listeners most remember about a musical composition.

**Demonstration:** I often simply ask: “Could someone please play a short flute solo?”

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**What is Harmony?**

**Description:** Where melody is the horizontal aspect of music, harmony is the vertical component. Harmony is created when one player plays the melody, while another player executes long tones or presents a countermelody underneath. Chords, comprising of three or more notes, can also be played to support a melody. The chords do not have to be solely long tones; rather, multiple moving voices can create harmony, as well.

**Demonstration:** When addressing the concept of harmony, I hold a long tone on the lowest, fundamental note of my flute while another person plays a short solo over the top of my sustained pitch.

**What is Rhythm?**

**Description:** Rhythm is considered to be the heartbeat of music. It is the controlled movement in time. It is the element of music that is most closely allied to body movement, to physical action. Rhythm springs from the need for order inherent in the human mind. For example, we organize our perception of time by means of rhythm – the tick-tock of a clock. Ancients discerned in rhythm the creative
principles of the universe in the regular movement of the planets, the cycles of the seasons, the tides, night and day, and life and death.

**Demonstration:** When discussing rhythm, I used a rhythmic mnemonic such as:

*TaKaDiMi Gun*** [rest---] [rest---]*

When the group joins, I invite people to play short solos over the rhythm.

**What is Texture?**

**Description:** Texture is the element of music that often imparts the sense of emotion, quality, or location to the music. It is a sound without, or with very little, pitch or rhythm. Examples in nature abound:

- Waves
- Wind
- Cicadas on a warm night
- Creaking doors
- An avalanche

**Demonstration:** To introduce texture sounds, I have participants play shakers non-rhythmically, have them make wind sounds by breathing into the finger holes of their flute, and sometimes do very short chirps on their flutes.

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**Setting Things Up**

Getting participants from a circle into ensemble quartets takes a bit of engineering. You could set up four chairs in the center of the circle and ask for volunteers. Or, you could have them take a break and move all of the chairs into quartets, so participants return to take a seat in a random quartet.

To reinforce the elements of music, I usually make sure each person in each ensemble sticks to exactly one of the elements: melody, harmony, rhythm, or texture. In the picture above, I have placed a piece of paper under each seat with “M”, “H”, “R”, or “T”. So, each person has an “assignment” for that ensemble. A gentler approach for a less experienced group is to let each person pick a role, as long as all four music elements are covered in each ensemble. I gently suggest that the rhythm players might want to grab a drum, but little “how to” information is provided.

One way to build confidence in participants, before the actual ensemble playing begins, is to have everyone in the room play together. There is a bit of cacophony, but this process gives players a chance to try out their instrument without “exposure”.

In the context of ensembles, I have all the rhythm players jam for a minute. Then the melody players join in. Next, the harmony players merge in the musical fray, followed by those players in charge of texture. You could even conduct the final texture sounds down to a soft level and invite the first ensemble to play. Then, between ensemble groups, I will often conduct the transition from group to the next by having everyone stretch and breathe. This releases tension and introduces the music from the next ensemble out of silence.
**What If It Does Not Work?**

Sometimes an ensemble works well musically. And sometimes … “not so much”. It’s important to emphasize that we are all in a safe space, with no audience, and with no downside for a “crash-and-burn.” You could encourage participants to talk about each ensemble after they play, or after all the ensembles play.

How did you feel about what you played? What did you like? What would you try differently next time?

Out of this, it usually emerges that groups who begin with rhythm often get more pleasing musical results. Ensembles where the harmony is played on a flute an octave lower than the melody seem to sound better. Ensembles that develop a mental / verbal “plan” are often disappointed. “And I love the sound of that gong at the end …” and so on. None of these conclusions are brought about by the facilitator; rather, the realizations really grow out of group experimentation and collective listening.

**Silence**

One challenge in ensemble situations is that he or she has been assigned the role of “silence” in the ensemble, as it actually happened once!

One way to demonstrate silence (remembering my “note-to-self”) is to start a very busy vocal groove such as:

**TaKaDiMi TaKaDiMi TaKaDiMi Gun-Gun-**

Then have a flutist play a melody over the top of the verbal rhythm.

Contrast the busy rhythm with a sparse vocal groove such as:

**TaKaDiMi Gun--- [rest---] [rest---]**

… and have the same player solo over the top.

What is the difference? The greater silence in the second rhythm allows space for the flute solo to be heard and gives the opportunity for a conversation between two elements of music: melody and rhythm.

**Second Chances**

Going around the ring of ensemble groups a second time is usually where things come...
together. I try to keep people in the same roles, and it usually results in more satisfying results. If you have the time, several rounds of group ensemble playing can make for a great event.

But what if there’s a particular issue or problem that you see that does not come up during the discussion? If you are facilitating in a community music setting such as a community drum circle, there is little in the way of instruction and everything that comes up musically is acceptable. However, in a workshop or class setting, you might actually want to stress a particular teaching point. Take, for example, an ensemble that plays timidly. Simply telling them to play more boldly could possibly put them in crisis. Positive results are not likely to manifest using this approach.

A different approach to the situation is to offer an exercise of extremes: “Could I ask you, just as an exercise, to play another ensemble, and play extremely, ridiculously timidly?” After they play, follow up by saying, “Could I ask you now, as another exercise, to play massively, ludicrously boldly?” Simply the tactile and sonic experience of playing at the two levels of extremes will create a broader conception of how music can be played. It expands the musical playing palette of the flutist.

Beyond Ensembles
Facilitated ensemble playing is a great transition to performing as a group. If that is the direction of folks in your group, you could set up a series of experiences to introduce them to some of the realities of performing, such as:

- playing in a line facing an audience, rather than having direct eye contact in a tight circle;
- difficulty hearing yourself play
- problems hearing others in your group playing
- dealing with a sound system
- sometimes having blinding stage lighting.

However, I’ve found that most participants just want to jam, and are not thinking about performing. Creating cool music and having stimulating musical conversations holds endless fascination for many, and that is often far more interesting than trying to “take it on the road”.

Note-to-Self
One interesting paradox is that this chapter – this entire book, in fact – runs against my “demonstrate – don’t explain” maxim. If you are excited about the possibility of facilitating flute circles, I encourage you to seek out some of the experienced facilitators of community music and really get inside of what it is that they are doing.

How do they handle participants with different amounts of musical experience? How do they keep everyone relaxed? How do they keep the playing musical? What are their structures? What lessons are beneath the implementation of their various exercises?

In that context, I hope that this chapter and the other material in this handbook can provide some structures that may be useful in your own flute facilitation.
Facilitating with Rhythm

Human beings rarely get new and complex learning immediately. The brain makes a ‘rough draft’ of incoming information, which gives the learner something to refer to, like a place mark. Once the brain has designed a rough draft, it now can use this information to make a ‘prediction’ about what may happen next. The brain seeks safety and familiarity to enter into new learning and complexity and challenge to grow new, larger and more extensive dendritic branching.

— Eric Jensen, Teaching with the Brain in Mind, 1998

Rhythm inhabits a special corner of our musical world. We are intrinsically rhythmic beings – walking, skipping, and running through life – but many of us have been duped into believing that we somehow “lack rhythm”.

As a music facilitator or leader of a flute circle, you have a unique opportunity to correct the misconception that we don’t have rhythm. This article offers some simple techniques and activities you can use to incorporate rhythm into group music-making. These activities use the “building block” method – scaffolding later activities on top of what has become ingrained by earlier activities. They also provide as much expressive and improvisational freedom as possible, offering a structure that encourages creative music-making rather than a strict formula for producing music.

The Big Beat

Participants at community music gatherings and flute circles find safety in simple and predictable rhythmic structures. The Big Beat method grew out of this realization and has proved to be a valuable resource at our community music gatherings. You can build this activity on free improvisation, or on the names of the people in the group, which makes it more personal. Once participants grasp the Big Beat, they are able to add their own creative ideas more easily.

You can begin by leading this rhythmic pattern:

\[
\text{BIG Beat} \quad 2 \quad 3 \quad 4 \quad | \\
\text{BIG Beat} \quad 2 \quad 3 \quad 4 \quad | ... \\
\]

When you lead a pattern like this, it helps to engage as many senses as possible. You can reinforce the rhythm by saying the words loudly and clearly, tapping physically on the body or playing an “air drum”, and dramatically reducing the volume of “2 … 3 … 4 …” to a whisper. You can also ask people to walk, dance, or move to the rhythm to help internalize it.

To make a stronger connection with the body, you can change to the words “Heart Beat” for the two initial beats. If things become a bit “loose” rhythmically, you can reinforce the first two beats with a large, low drum. However, even if the rhythm is solid, it will help for later activities to have a low drum on those first two beats.

Once the group is entrained in the Big Beat rhythm, you can keep the two initial beats going but replace the 2, 3, and 4 beats with silence. Then you have an area of silence to fill. Here are some ideas:

- Develop some call and response – alternating between bars of your calls and the group’s responses;
- Move around the room, inviting each person to issue one or more calls and having the group provide the responses;
- Ask people to fit their own names into the rhythm in a musical way
- Have all the participants improvise simultaneously in the silent spaces by whispering on their voices

Once people gain confidence, you could move back to silence or whispering the numbers and demonstrate a 2-bar or four-bar improvised solo over the rhythm. It often works better to have people do this on their voices first, and then move to flutes.

If you are facilitating solos by each person in the space of a single bar, it would look like this:

Once people gain confidence, you could move back to silence or whispering the numbers and demonstrate a 2-bar or four-bar improvised solo over the rhythm. It often works better to have people do this on their voices first, and then move to flutes.

If you are facilitating solos by each person in the space of a single bar, it would look like this:

... but it is often easier to let each person improvise over two or four bars.

Ideally, the solos will involve playing in the spaces. However, in a humanistic tradition of music facilitation, we will accept whatever people can offer when it is their turn to solo.

If someone has a particular problem with playing in the spaces or over the rhythm, you can help them with enhanced body movement. We have found that demonstrably moving in front of them and encouraging them to move with you helps entrain the rhythm during singing and flute playing.

Introducing Silence

One of the key elements to creating music that engages the listener is the use of silence. Adding silence creates a sense of expectation and draws the listener in.

Rhythmic exercises provide an ideal opportunity to introduce structured silence. You could ask people to play in the spaces of every other bar, alternating with silence. You can do this as a listening exercise and ask people what their reaction is to the introduction of silence.
**Other Meters**

One variation you might consider is moving from a four-beat bar to another meter. The most common meter after four beats to the bar is three beats. The rhythm would be:

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**Seed Rhythms**

The Big Beat concept that we’ve developed so far is an example of the “seed rhythm” technique for developing rhythm-based improvisation within a group. The general idea is to use a very simple rhythm with lots of space for improvisation between the rhythmic elements.

As a facilitator, you get to explore what works in your situation. For Native American flute circles, you might explore a seed rhythm with a bit more “meat” and correspondingly more space between the rhythmic seeds. Here is an example of a seed rhythm that is a (very) simplified version of a well-known Middle Eastern rhythm. It uses two different tones, a feature that can be obtained on many hand drums:

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**Rhythm in the Center**

Once a circle of players is entrained to a simple rhythm and has explored playing in the spaces, it is easy to transition to a more “jam session” type of structure. An easy way to do this is to morph the single-circle structure into a double circle that we call “Rhythm in the Center”. This is one of the most fun and satisfying activities at flute circles, and we often use it to close out a workshop or flute circle because people are free to go wild and stretch themselves.

Ask for some volunteers who would like to play percussion to take from three to five seats in the center of the circle. It helps to enlist the percussion player who has been holding the “Big Beat” or another seed rhythm on the low drum to keep that rhythm going. Now you have a solid, sparse rhythm and you can invite the other percussion players to select rhythm instruments of different types. Invite each percussionist, one at a time, to add to the rhythm, leaving some space for the remaining percussionists. This typically results in a complex, textured rhythm that has a firm grounding in the “Big Beat” that the group has become entrained into the group.

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As with the Big Beat rhythm, you begin with silence in the rest bars, and then move to having everyone improvise on their voices during those rests, and finally have people take turns around the room improvising solos in the silent spaces. Of course, the improvisations could be on percussion, their voice, or the flute.

You can get the flute players to bring their flute and form a circle around the percussionists. Then model playing flute over the rhythm for four or eight bars, and pass the flute solo around the circle. You will likely have to conduct (with visual signals) when to move from one flute player to the next, but most groups will pick up the four- or eight-bar cycle fairly quickly and intrinsically know when to pass the solo.
As the facilitator, you’ll need to be aware of dynamics. Percussionists can easily drown out a flute solo – especially a low flute – so you may need to conduct the percussionists to play more softly for low or quiet flute and bring their volume up for high flutes.

**Success for All**

The “Rhythm in the Center” activity can be challenging for some flute players, especially those with little rhythm experience or with an “I don’t have rhythm” mindset. As a facilitator, keeping it in the realm of an experience rather than a test is central to the humanistic approach to flute circles. In this context, anything that the flute players put out is “OK” … if folks just noodle around for a while and pass the solo – that’s perfectly fine.

You just may find that those who had the most trouble with playing “in rhythm” or “with rhythm” are exactly those folks who get the biggest psychological lift out of a “jam circle”, encouraging them to keep at it until they are truly one with the rhythm.
Keyboards in the Circle

Why are people so afraid of the piano? You just lay your hands on it, and it produces the most beautiful sounds ...

– David Darling

Beautiful sounds of a piano combined with beautiful sounds of a Native American flute. Why are they so rarely heard at flute circles? Maybe this magic combination is so rare for exactly the reason it is so intriguing: a combination of two very different cultures. Many of us in the Native American flute community were turned off by early experiences with piano lessons or the seeming mountain of complexity surrounding music theory.

This article sidesteps the issues surrounding formal piano training and music theory and approaches the keyboard using straightforward techniques that connect us more directly with some of the gorgeous sounds the instrument can produce.

That’s Just a Trick

I was at my aunt’s elder care facility and found a room with a beautiful grand piano. I sat down and used one of the “straightforward techniques” that I’ll talk about later in this article. People started to filter in when they heard the music, and I had a small group of listeners after a few minutes.

When my aunt came in, she was amazed that I could play the piano. She was an experienced piano accompanist and well into her 90s at the time. When she saw what I was doing on the keys, she blurted out “That’s just a trick ... you’re using a TRICK!” Thankfully, I kept my cool, kept playing, and called back “You bet, Aunt Grace ... I use every trick I can to make beautiful music”.

For people who have spent years or decades developing their piano skills, a “trick” used by a keyboard novice – especially one that produces pleasing music – can be frustrating. Put-downs like “That’s just a trick” can easily result. But, there really is no competition here. The “tricks” I talk about in this article won’t lead you to playing Chopin preludes or the Moonlight Sonata. However, they can help develop our musical breadth and provide a fantastic opportunity for enhancing Native American flute players in your circle.

This chapter was written by Clint Goss. A similar two-part article appeared in the May 2015 and August 2015 issues of Overtones, published by the World Flute Society. Many of the techniques are based on exercises from Return to Child, by James Oshinsky, 2008 (www.ReturnToChild.com). James reviewed this article and provided valuable suggestions and improvements.
Return to Child

There’s a philosophy that is shared by jazz musicians and Zen practitioners: the ideal of “beginner’s mind” or “return to child”. Approach these techniques with the wonder and sense of discovery that a newborn has when they first hear music – it can really open paths to deep listening.

Tai Chi Piano

You are sitting in front of 88 beautiful bells. You have 88 mallets, one for each bell. Some mallets are black and some white. The possibilities are endless.

To allow the bells to ring fully, look below the piano or keyboard. If you see one pedal, press it down with your right foot and keep it down. If there are multiple pedals, keep the rightmost one depressed.

Lift up your right hand in front of you and point one finger upward. Slowly, gracefully, and with purpose, sweep your hand to the side (just enough to clear the keyboard), then down toward the floor. As your hand passes the keyboard, let your eyes focus on any one of the black or white mallets in front of you. Let your arm swing back behind you, arch up over your head, and then come down, letting your finger land on the mallet that your eyes are focused on. Open your ears as the bell rings out.

Now slide your gaze left and pick any other mallet with your eyes. Repeat the same Tai Chi arc with your left hand – pointed finger, arm sweeping behind you and up over your head – and try to land your finger on the new mallet you are looking at. Return and repeat with the right hand, then the left, and keep going. You can repeat striking some bells or choose entirely new bells.

Pacing and Spacing

Try playing Tai Chi piano at an even pace. Experiment with stopping for a moment and then resuming. Explore the effects of completely random timing.

Become conscious of your breathing as you continue playing Tai Chi piano. Use your arm motions to help expand your chest and allow you to breathe more deeply.

Experiment with striking the bells with a strong, definite mallet strike. Then shift to a very soft touch. How soft can you go? Can you smoothly strike the bell with a touch so soft that it is barely audible?

Move very close to the mallets and examine each finger as it strikes the mallet. Then lean back and take in the whole picture: the descending hands, extended fingers, breathing, and sound.

Explore what happens when you strike mallets at the far left and right ends of the keyboard. Explore playing bells very close together and very far apart. What is the musical effect of bells that are right next to each other? What about two white mallets that have a black mallet.

between them, and two other mallets with no black mallet?

Stop for a moment and do some of your favorite stretches. You might flex your fingers and wrists, rotate your shoulders in circles, or rotate your whole torso. Return to Tai Chi piano and note any differences after stretching.

**Performance Tai Chi Piano**

You can get fancy with the Tai Chi piano form and even turn it into performance art. Try standing up and engaging the entire body during Tai Chi piano (you’ll need to find a way to keep the pedal depressed). Can you do Tai Chi piano with two people?

**David Darling Audio Commentary**

David Darling’s thoughts on Tai Chi piano are available as an MP3 download. It is nine minutes long and I think provides some interesting perspectives. Go to:

[http://DarlingConversations.com/tracks.htm](http://DarlingConversations.com/tracks.htm)

On Disc 3, the Tai Chi Piano track is a link to the MP3 file. You can click and listen to the track. You can also right-click (on Windows) or control-click (for Macs) and download the MP3 to your computer for listening later.

**White Key Tai Chi**

What happens if we only play some of the notes? (Now that we have ingrained the concept that we are playing bells with mallets, I’ll go back to the more conventional piano terms: “notes” and “keys”.)

Keep practicing Tai Chi piano, but limit yourself to the white keys. What happens? Can you describe the difference in sound?

**Sharing the Keyboard**

If you are facilitating a flute circle or other music gathering, you can certainly learn the techniques in this article and use them while facilitating. However, a powerful technique is to ask for a volunteer who has never played the piano. Every time I have guided a volunteer through the exercises described so far, taking them slowly and with kindness, the result has been a gorgeous and sparse background.

If the person playing Tai Chi piano is playing all the white keys, the notes sound consonant with a Native American flute in A minor. At this point, I usually play my low A minor flute over the piano background, and it typically “works” quite well. The challenge is that the flute must be brought into pitch with the keyboard – typically using breath pressure.

Once you have established that the combination of White Keys Tai Chi Piano with an A minor flute works, you can invite others to play A minor flutes. However, be aware that some flute players may not have experience with bringing their flute up into pitch with breath pressure. Be ready to coach them to provide more “oomph” (or “breath support”). You might even need to help them adjust their block a bit to get a consonant sound. Since a mid-range A minor flute might be quite loud when the needed
breath pressure is provided, this exercise often works better with a low A minor flute.

If people are familiar with the concept of “Mode 4” (very briefly: keeping the 4th finger hole from the head end of the flute closed rather than the traditional 3rd finger hole), you can invite an E minor flute to play in Mode 4. Mid-range E minor flutes are lower in pitch than mid-range A minor flutes and often go very well with White Key Tai Chi Piano.

More Notes

With the pedal still pressed down, add a thumb to the index finger on the right hand. You are pressing two keys simultaneously. Experiment with how far apart the two keys are … with one, two, three, or four un-played keys between the thumb and index finger.

While you are still alternating right and left hands, try adding a thumb on the left hand as well. Now you are playing pairs of high and low notes. How has the sound changed? If you are still playing on the white keys, does it still work with an A minor flute?

Chords

Now play both hands simultaneously – four notes at once. How do they sound? Try a different four notes. How do those notes sound?

This is where the deep listening really comes into play. If you don’t particularly like a four-note chord, move your fingers elsewhere. However, if you like the sound, play those same four notes again. Play them slowly three or four times.

Then, rather than moving to four completely different notes, change just one of the notes. Do you like it? If so, hang out there for a while.

Don’t forget to incorporate some of the earlier techniques: altering the pressure on the keys to bring in loud and soft sounds, varying the tempo and timing, moving your hands very close together or very far apart, and playing at the left and right ends of the keyboard.

You can also begin interspersing single notes in with the chords. Try alternating chords with single notes, and explore the difference between making your single notes one of the notes from the chord or a different note.

Sustain and Momentary Damping

What happens if you release the foot pedal (you’ve been holding it down all this time, right?)

If you release both the sustain pedal and your fingers, the strings should stop resonating (they will be “damped”). Now try this “momentary damping” technique: When you are moving from one chord to a new four-note chord, try releasing the sustain pedal just before you move to the new chord, and re-engage it immediately after you press a new chord. With a bit of experience, you can get your foot to release at just the right time, and for just the right amount of time, with no conscious effort.

Explore the difference between full-time sustain and momentary damping. What is the sonic effect?

Arpeggios

A beautiful alternative to playing all four notes together is to play them one at a time. The music term for breaking up a chord in this way is “arpeggio”. Experiment with playing each note separately up and down. Start very (very) slowly at first, and keep the speed right there for a long time. Try it a little faster only when you are really comfortable with playing the four notes separately.

While Tai Chi piano most often offers spaciousness, arpeggios provide access to grooves and rhythmic patterns. These grooves can be a great invitation for a flute player of any level of experience to begin playing, and
provide a beautiful contrast to long-tone flute playing.

The practice of alternating four-note chords with arpeggios and single notes is another of the tools we can use to create expressive improvisations on the piano.

**Black Key Tai Chi**

Move to playing only the black keys. What has changed? Do you like chords or single notes better? How do arpeggios sound?

Black keys are often the best place to start for people with no keyboard experience – there are fewer black keys than white keys and they can be easier to press. However, the key of Native American flute they are most consonant with is a rather unusual one: D# minor (the same as Eb minor). If you happen to have that key flute on hand, then combination with a black-key improvisation can be magical.

**Video Example**

Check out this YouTube video:

[https://www.youtube.com/watch?v=KkpQbjkRbzs](https://www.youtube.com/watch?v=KkpQbjkRbzs)

You can find it on YouTube by the title “Pentatonic Improvisation – piano solo” by 7notemode. It is not exactly Tai Chi piano, but it demonstrates an all-black-key improvisation.

Of course, the limit of only five notes per octave can seem restrictive. Try this game: add one white key to the mix. Which white keys work the best?

**A World of Sounds**

The techniques in this article can produce beautiful flute backgrounds on an acoustic piano, especially an acoustic grand piano. However, electronic keyboards use synthesized and sampled sounds, and can take the music in completely different directions. These instruments typically provide you with a palate of sounds from many instruments and cultures, and even completely synthetic sounds that do not correspond to any real-world instrument.

If you have access to such a synthesizer, find a mode where you can step through each of the available sounds. Many synthesizers have hundreds or thousands of available sounds. Try different techniques with each of the sounds – sparse vs. dense, soft vs. loud. Explore the difference between full-time sustain, momentary sustain, and no sustain. Many synthesizers use the sustain pedal in very different ways for each of their sounds.

Keep a pad of paper handy for the sounds that you think might be useful and jot down the name or settings used to access that sound. You might get lost in the sounds of these sounds for days or weeks … but that’s OK!

**The Claw**

We began by using a single finger on each hand, and then progressed to two fingers – the thumb and index fingers. Now add one more finger, first to the right hand, then left. I usually like to add the ring finger, but you can use any set of three fingers that are comfortable. If you are coaching another budding keyboardist, you can use the phrase “The Claw” to describe what it looks like.

Now we have a wealth of notes to work with – a total of six either simultaneously or in sequences. With a bit of experience, this can easily lead to what I jokingly call the “No Room for Flute” accompaniment. It is a problem I’ve commonly encountered with experienced piano players when I first try to play duets: they are accompanying (or “comping”) with so much density that there is hardly any sonic space for a flute to be heard.

I’ve found over the years that, regardless of how much more experience the piano player might have compared to me, I may need to gently educate them about the ways and modes that Native American flute and piano duets work best – and that usually involves nudging
them into playing with more space and silence in the accompaniment.

**Frequency Collisions**

Another key element of beautiful flute-piano duets involves being conscious of the area on the keyboard where the pitches collide with the flute. This area is usually near the center of the piano. It is also relatively small: a range of little more than one octave. Can you locate the area of the keyboard that exactly matches a particular flute?

In your duets, explore playing piano right in the pitch-range of the flute, and then separating your hands keeping free of the flute pitches. What sounds best?

**The Notes**

So far, not a single mention has been made of the notes on the keyboard. That is fine, but it does become helpful to make some connection with the names of the notes.

Working on the white keys is particularly easy. You can locate the **G** and **A** keys: First, find a group of three black keys; the **G** and **A** keys are the two white keys inside that group (see the diagram at the right).

You are spanning two **A** notes with the left hand and using a claw with the right hand (playing **E**, **A**, and **C**). You can pick any octave that sounds good – it should produce a full, rich chord. You can try this as an accompaniment to an **A** minor flute, if one is available.

Next, move to the notes marked “2”:

**Spanning an Octave**

Play an **A** with your left thumb. Can you reach the next lower **A** – an octave lower – with your pinky? Spanning an octave can add power and solidity to your music.

Get some experience running up the scale on the white keys while spanning the octave. Now run back down. Can you play every other note on the way up and down while spanning an octave? Can you reliably move three notes away – for example, from **A** to **D** and back – while spanning an octave?

**Descending Progressions**

Chord progressions give a sense of motion to music while introducing structure. One of the most pleasing and simple is a descending progression. First, find the notes marked “1” on the keyboard:

You should have ended in the same position within the group of three black keys. Now you know the names of the white key notes!
The left hand stays on the same two notes (as it does through the entire progression). The three fingers on the right hand each move one white key to the left.

The third chord follows the same pattern: the left hand plays the two A notes and the right hand slides one set of white keys to the left:

Keep playing chords in this pattern, sliding your right hand one set of keys to the left, for a total of 8 chords. You will wind up playing the “8”s below. These are the same notes as the “1” chord you began with, but your right hand will be one octave lower:

Once you get the basic pattern down, you can play the notes using any of the techniques developed so far: straight chords, arpeggios, single notes, or any combination of these. Explore these techniques in a duet with an A minor flute.

You are also free to play the descending scale in any meter. The most common meter is four or eight beats to each step in the progression, but you can try experimenting with three or six beats. Even more unusual rhythms can be found if you give five or seven beats to each step.

**Patterns**

Revisiting the world of arpeggios, and with the two additional fingers we just added, we can begin to build far more complex patterns with our chords. The possibilities are almost endless.

First, develop some dexterity with straight arpeggios up and down using six fingers (three on your left hand and three on your right). Try repeated descending runs (“waterfalls”) as well as ascending runs.

Now experiment with more complex patterns by changing the order of notes you hit, hitting pairs of notes at a time, and using rhythms of different patterns for the notes. If you play along with a background track or drumbeats in different meters and tempos, pleasing patterns will emerge.

**Video Example**

Begin viewing this YouTube video at about 4:47:

https://www.youtube.com/watch?v=XEjEeSvOzag

You can find it on YouTube by the title “Lubomyr Melnyk - Evertina Tour 2014 (Live Trailer)” by Lubomyr Melnyk. It demonstrates this type of thick, pattern-based improvisation over chords.

Once you develop some patterns, see how they work in duets with flutes. Remember to try to avoid frequency collisions with the pitches of the flute and occasionally change one of your notes to establish some changes in chords.

**Video Example**

Here is a great Peter Kater YouTube video that demonstrates the pattern-style technique with an A minor Native American flute:

https://www.youtube.com/watch?v=6WS_eV9bUKI

You can find it on YouTube by the title “Peter Kater - Live Concert - Improvisation #2 in A minor”.

**Other Techniques**

Take the back of your right thumb and place it on the highest white key. Then run the back of
your finger across all the white keys to the left end of the keyboard. You can also try this in the other direction – from low to high – using the back of your index or middle finger. Log these sounds in your brain for future use … maybe there’s a place for them somewhere in your music …

Try a “crush chord”: use both your forearms and palms to press as many piano keys down at the same time. Do it with gusto! Useful? Maybe sometime …

**Three Notes, Four Chords**
And finally, I would like to share my favorite progression. It is a sequence of four spacious, descending three-note chords. I learned it years ago from Josée Allard, an experienced facilitator who often leads from her primary instrument, the piano. I have used it dozens of times in flute workshops and it has never failed.

Begin by playing these notes, one at a time in order, with your left hand. You are following “1”–“2”–“3”–“4” in a descending scale. These notes form the acoustic anchor for the chord progression:

![Diagram of A minor chord with left hand notes 4 3 2 1]

Then add four notes with your right thumb. In this notation, you are playing the notes marked “1” together, then “2” together, etc. The right thumb plays only two keys, each of them twice:

![Diagram of A minor chord with right thumb notes 4 3 1 2]

Finally, add a third note to each chord. Again, you are playing all the notes marked “1” together, etc. You can play these upper notes with your right middle or ring finger. The result should be a pleasing group of notes that you can enhance in many ways with chords, arpeggios, and various finger patterns:

![Diagram of A minor chord with right hand notes 3 2 1 4]

Here is the same progression, transposed for three other common keys of Native American flutes:

![Diagram of A minor chord in three other keys]

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9 Deep secret: I’ve used this progression on many of the background tracks of the [www.NAFTracks.com](http://www.NAFTracks.com) series. I have used various synthesizer sounds and rhythms, but the underlying chord progression is basically the same. Please don’t tell anyone 😊.
And now, find your own keyboard techniques – easy-to-play and potentially useful “tricks” for supporting flutes in community music gatherings. And when you do, please *(please)* take the time to send me an email *(clint@goss.com)* and tell me about it!
Music Theory Questions

One area that I am constantly working on is how to answer basic questions about music theory. These questions tend to be the ones where the first answer – the head-space explanation – leads to more questions, confusion, and feelings of musical inadequacy. Here are some of my favorite questions and some of the answers that I have found seem to work for players across a wide range of experience:

What is the difference between major and minor?

Rather than any verbal explanation using music theory, I’m hoping to offer an experience. If a piano is handy, I’ll play the two chords shown below with a 3-finger “claw” configuration on each hand, saying “Major” and “Minor” as I play them.

Moving to the Native American flute, I play the major and then minor chord notes up and down a few times. Then a bit of improvisation on the each of the two sets of notes gives the feeling of these two very different chords. If the group is intermediate or above, I show them these two chords and have them try some “one-breath solos” on the four-note combinations.

How do I play in major?

Since most songs in Western music cultures are in a major mode, the question “How do I play in major?” is usually related to “How do I play songs that I know?” After trying many ways of introducing people to playing in major, my favorite approach is to simply ask people to play a short melody that starts and ends on  or .

This approach brings in different ideas, many of which might be new to players:

- The concept of a root note for a melody. The root note is the note that the melody centers on, typically beginning and ending on that note.
- The exercise opens up the possibility of creating melodies with a different root than  or .
- The idea that, even if your root note is , you can still play the .

This chapter was written by Clint Goss. A similar article is scheduled to appear in the May 2014 issue of Overtones, published by the WORLD FLUTE SOCIETY.
note. You could demonstrate a melody that end on \(\textcolor{red}{\text{C-B-A-G}}\), but uses the \(\textcolor{blue}{\text{B-A-G-F}}\) note as a “leading tone” into the final note.

**How can I play alternate scales?**

I struggled with how to approach this for many years. I would hand out a double-sided chart of fourteen carefully mapped-out scales, including seven “basic” ones on the front of the sheet and seven “exotic” ones on the back. I’d then ask people to pick a scale (they’d usually pick a really complex one), practice it for five minutes, demonstrate a scale up and down for the group (lots of frustration and failures), and then try improvising in it (few people got this far).

Finally, I realized that it wasn’t the scale that was important, but the process of how to learn a new scale. So, I now introduce an extremely simple scale: the four-note bugle scale. We learn the notes together one at a time as a group. Then we play the bugle scale up and down together many times, sing it while playing it, try some scale-song improvisations, and then play the familiar melody *Taps*. Everyone seems to succeed at this. Then we move into adding and really emphasizing the vibrato. Most of these sessions close with playing *Taps* while visualizing ourselves at a memorial service.

And what about the chart of fourteen scales that I used to hand out? It still exists – as a handout (provided at the end of this chapter). The message is that all these scales can be learned by the same method: slow learn the notes, practice playing up and down the scale, practice scale songs, introduce leaps between far-away notes, and then free improvisations.

In the end, it seems to be that the biggest challenge is striking a balance between the head-space and the heart-space: playing from the heart as much as possible and asking the head for new material when horizons need to be expanded.

**The Circle of Fifths**

Finally, the topic of the circle of fifths is often brought up by one of the participants. This can easily become a head-space subject, with charts and verbal descriptions and applications on mobile devices popping up all over the room. (You could really go on a tangent and show the first known version of the circle of fifths, shown above. It is from Идея грамматики музыки, a «Idea grammatiki musikiyskoy», «An Idea of Musical Grammar», by Nikolay Diletsky, 1679, currently curated by the Russian State Library.)

We’ve tried a lot of angles with this topic, and the best one seems to be:

1. Motivate why the circle of fifths is useful: How do you find two flutes that play well together?
2. Provide a listening exercise: I have one person play the fingering \( \text{\textbullet \textbullet \textbullet \textbullet} \) or \( \text{\textbullet \textbullet \textbullet \textbullet} \) and then have the walk around the room and try to find a person with another flute that, when they use the fingering \( \text{\textbullet \textbullet \textbullet \textbullet} \) or \( \text{\textbullet \textbullet \textbullet \textbullet} \), plays the same pitch. You could hint that it will be a smaller / higher flute, but you can also let them figure that out.

3. Have those people try an improvised duet and see if the process works.

If participants are still interested in a graphic representation, you could point them to the Circle of Fifths page on Flutopedia, at http://www.flutopedia.com/circle_of_fifths.htm. It has several potentially useful charts, two of which are shown on the next page.
**Scales**

The two-page scale summary mentioned earlier is included on the next two pages. While these pages can be daunting if the facilitator hands it out during a workshop or flute circle, this kind of information could be ideal for some players if it is made available during a one-on-one lesson or if they work on it at home. However, there are some issues:

- They are based on a single flute design – the Northern Spirit A minor flute – by a single flute maker – Richard Dubé. Since fingerings are not standard, you would need to adjust a significant portion of the finger diagrams on the chart.
- The names for the scales are my own – I know of no generally-accepted consensus for the names of scales.
COMMON SCALES FOR NATIVE AMERICAN FLUTES

Fingerings for Six-hole Northern Spirit A minor flutes by Richard Dubé
Developed by Clint Goss

Pentatonic Minor

Upper Hexatonic Minor

Diatonic Major

Upper Tritonic Major

Upper Major

High Major

Chromatic

Zuni Sunrise

AKA: “Mode 4”
Summertime
Greensleeves *

Joy to the World
Over the Rainbow
The First Noel
Shenandoah
Colors of the Wind

AKA: “Bugle Scale”

Taps

Oh Tannenbaum
Amazing Grace (lower)
Simple Gifts
Kayowajineh

Oh Come All Ye Faithful
Amazing Grace (upper)

All the notes - not usually used in songs.

Visit www.Flutopedia.com for more Native American Flute resources

Updated August 31, 2012
Exotic Scales for Native American Flutes

Fingerings for Six-hole Northern Spirit A minor flutes by Richard Dubé
Developed by Clint Goss

Blues Six-Note

Blues Seven-Note

Miyako-Dushi

Rotation of Hirajōshi

Hirajōshi

AKA: "Ake Bono"
Sakura

Spanish Gypsy

Streets of Cairo (AKA:
The Snake Charmer Song)

Byzantine

Neveseri

Greek folk music

Root note of the scale
Orange: half-hole fingerings
Notes in the upper register

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Updated August 31, 2012
Lessons on Lessons

If you mess around with flutes long enough, someday you’ll find yourself giving a lesson. It might be to help out a first-time flute player at a festival, coaching novice players at a flute circle, or something more formal such as a class presentation. But whatever the context, there are some basic guidelines to making the transition from player to teacher that we will look at in this chapter.

Unlike formal school programs, flute lessons come in many shapes and sizes. There are one-on-one lessons and group classes. These can be single sessions, multiple sessions over several days, periodically throughout a semester, or done occasionally over a long timeframe. And unlike formal school programs that assume all students have a quantifiable background in a lock-step program of learning, Native American flute students arrive with vastly different musical and life backgrounds. They also have a wide range of goals. Combine that with your own specific background and approach to the instrument, and the teaching possibilities are endless.

How People Learn

Given all these teaching scenarios, it’s useful to look at some of the basics of how people learn. The generally accepted model is that we have a limited “working memory” (or “short-term memory”) in which to take in new information and actively solve problems. Meaningful observations and problem solutions move into our vast store of long-term memory that grows into our mental representation of the world ([Atkinson 1968]). This world-model, co-created with our environment, enables us to recall solutions to real-world problems by...
finding matching situations from long-term memory, without burdening our limited working memory in problem-solving. This is seen when chess players recall board configurations from long-term memory rather than puzzling through each move (see [Groot 1965], [Chase 1973], and [Burns 2004]). I believe that we see it when a flute riff is called upon as a single learned unit, or when appropriate ornaments just emerge at appropriate places in our melodies.

A widely accepted theory of learning says that learners can only construct a mental representation of the world through engaging in active cognitive processing (see [D'Angelo 2009] for an overview of Constructivism). You can’t open a student’s brain and pour in the information – they must process it through an active process that engages the mind. Or, in the famous quote from Confucius: “I hear and I forget. I see and I remember. I do and I understand”.

**Building Blocks**

The extreme limitations on working memory mean that new information can only be absorbed in small chunks. For example, if someone is interested in learning to play a “pop” ornament, typically used at the end of a melodic phrase, you might break it down into several components. Since it involves breath articulation and finger dexterity together, you can work on each skill separately:

- Have them say “what”. Then transition to breathing the “what” without vocalizing it, cutting off the air flow as their tongue clamps to the roof of their mouth.
- Practice the new skill.
- Then get used to the finger motion of going from [INSERT] to [INSERT] in one motion, without breath and sound.
- Practice this new skill.
- Then combine the two new skills in one “pop” ornament.

- Practice the combined skill in isolation.
- Practice playing short phrases that end in a “pop”.

This is the “building block” approach to lesson plans, based on the assembly of solutions from a solid foundation of learned sub-solutions. As knowledge and skills increase, the base expands, supporting further learning.

The goal in teaching the “pop” ornament is not only to wire the complex finger and breath motions into long-term memory, but to associate them with the sound and feel of the ornament. I believe that the association with the sound works in reverse when we are playing, causing us to “hear in our mind” the sound that we want and also causing the ornament to appear in our music, not by conscious thought but by an association between sound and the finger/breath motions in long-term memory.

And excellent background in the best-practices of learning is provided from an unlikely source: the Federal Aviation Administration. Their *Aviation Instructor’s Handbook* ([FAA 2008], available free as a PDF) provides a practical roadmap for experts in a field (commercial pilots) who have no background in education. The 1977 version of that handbook was my constant companion when training to be
a flight instructor, and those same skills transfer beautifully to teaching music.

One element emphasized by the Aviation Instructor’s Handbook is lesson plans. The outline of teaching a pop ornament is a good example – an outline for teaching a skill. Developing these approaches and outlines takes time. But as your interest in teaching grows, you’ll start asking yourself “how could I teach that?” Simply developing a mental plan for how you might teach something will begin to build up a mental library for teaching the myriad elements of the Native American flute as well as music in general.

**Fully-Guided versus Partially-Guided Instruction**

A major debate in education over the last 50 years centers on how students learn most efficiently. The approach of fully-guided instruction advocates providing the student with full, explicit instructional guidance – providing demonstrations and direct guidance for the proper or best way to accomplish a task. The various partially-guided approaches to instruction (including discovery learning, problem-based learning, inquiry learning, experiential learning, and constructivist learning) are designed to provide partial or minimal instructional guidance and expect students to discover some or all of the concepts and skills on their own. Partially-guided advocates take the view that students do best when they construct their mental world model through guided self-discovery.

Significant effort has been put into researching these techniques, and some educators have recently declared that the debate is over: fully-guided instruction is more efficient and has the best long-term results ([Clark 2012] and [Kirschner 2006]).

However, what these studies offer us may be limited in scope. I believe that fully-guided instruction is ideal when teaching small, well-defined tasks such as the pop ornament. But when looking at the larger context of adults seeking personal expression and self-actualization, self-discovery methods might be exactly the best approach.

Take, for example, the activity of listening to music and how it might help a new flute player. Most of us listen to a lot of music, but often in a relatively detached, entertainment-based fashion. But as musicians, there is a wealth of things we can learn from deep music listening. You might listen to a piece of music with a student, and then offer the things you heard: what was the song structure, the use of ornaments, the variations in different repetitions of a verse or chorus, the use of rhythm, sound textures, dynamics, silence, beginning and ending styles, song forms such as solo-drone, echoing, call and response, or shadowing, etc. Then ask the student to bring a piece of music the next time and offer their own self-discovered analysis.

The rationale for this approach is the basics of the Constructivism: converting an otherwise passive casual listening experience into an active cognitive process.

Another aspect of teaching music relates to the many cultural messages that we receive by the time we are adults about our own musicality. This often interferes with the basic aspects of our music development. Adults who have been told (and believe) that they have no rhythm are a good example of people who, I have found, do not respond well to direct, fully-guided instruction. After years of experimentation and coaching in humanistic teaching techniques, I’ve found that:

- putting flute players in an environment of strong, simple rhythms (on a sound system or with live drummers),
- having them move to the rhythm, then
- join the rhythm with their voices, then
- reduce their vocalizations to just breathing and moving along with the rhythm, and then
• playing simple long tones along with the rhythm (while continuing to move)

… can turn the most musically inexperienced players into playing right along with the beat. The experience is set up in a fully-guided way, but the learning and feeling of accomplishment are born of self-discovery (“Yes, I do have rhythm!”)

**Lesson Structure**

Another challenge is how to structure a lesson, especially if it is a single one-on-one lesson with a new student.

After finding out a bit about their background and intentions, I often ask them to “play something”. From a humanistic approach to teaching (see Chapter 17 of [Rowan 2005]), which places the teacher in the role of supportive facilitator rather than judgmental critic, we realize that even a request such as “play a song” can put students into crisis mode, so “play something” or “play anything you like” can be far more effective.

Beginning a lesson with unstructured playing by the student is a great way to focus and structure the lesson. The focus is off the teacher, giving us freedom to listen, observe, and diagnose the areas where the student has the most opportunity to improve. For me, the game is to come up with two or three things to focus on – ideally a mix of areas that can be immediately improved as well as ones that can be set as more long-term goals.

Maybe the student uses only one attack at the start of each note. Maybe they have not yet developed vibrato or are playing at a very quiet volume. Maybe they are uncomfortably stiff in their body movements, or have choppy endings to their notes.

You might pick a few of these and structure exercises to overcome them. Of course, simply telling them “you’re too stiff when you play” isn’t very helpful. This is where fast thinking and creativity (and practice structuring lesson plans) comes into play. How can we get them to loosen up? “Great ... play the same thing, but walk around the room while you’re playing”. If they’re still stiff: “OK now make small circles with your shoulders as you walk and play”.

For people who always play in a certain way, such as very quietly, it may be simply be a matter of helping them explore other styles. One thing you can do is have them emphasize the trait you would like to change: “Could you play that extremely softly” ... and then “Could you now play it extremely, ridiculously loudly”. Then you could move on to having them play a phrase very softly, then very loudly, then back to soft, and so on.

This approach avoids the problems of teacher criticism while allowing them, in a safe space, to expand their musical options.

Some things, such as teaching vibrato, are special topics that deserve research to find the best teaching approach. After many experiments, I’ve found that having students lay down on a fairly hard surface and attempt vibrato breathing with one hand on their belly can dramatically shorten the time it takes to “get” vibrato. However, they should know that, while most techniques on the Native American flute can be learned with a few minutes practice a day for a week or two, vibrato can take a year or more to develop.

And possibly the most valuable thing you can offer during a lesson, especially a single one-on-one lesson, is to share music training and enrichment techniques that a student can bring forward into their everyday life. Simply the act of walking can be a musical exercise. Windshield wipers slapping, singing in the shower, meditating on your breath on a busy train, deep music listening, readings from your suggested reading list, listening to all the sounds in our various environment … the list is endless.
Moving Forward

Of course, this chapter just skims the surface of a very, very deep field. If you’re teaching a class, do you need a textbook, and which one will you use? How do you handle students with a high level of experience on the flute, or with formal music theory training?

Here is some advice from Cornell Kinderknecht, an experienced flute teacher with extensive formal music training:

- After you develop your lesson plan for a single one-on-one lesson, develop elements that would apply to on-going lessons. These can include: learning to know more about the student personally to bring that into their music, setting goals that are per-lesson and longer term, finding how to measure and instill a sense of achievement over time, considering how to deal with set-backs, motivation, etc.

- Explore the different types of learners and various personality types. Become comfortable teaching musicians who follow by example, those who like step-by-step details, those that like to play solo versus duets, those that like to improvise versus compose their melodies versus those that like to play established melodies, and those that need more or less encouragement to flourish.

- Study some classic forms of traditional music education, such as the master class, dexterity exercises, and composition techniques, and explore how they can be applied in the context of a Native American flute lesson.

- Find how to strike a balance between reinforcing a student’s own style of playing and sharing your particular style and approach to the instrument.

In the end, I’ve found that a focus on teaching brings me a far deeper understanding of my own musicality and a stronger connection with the instrument. And, as another old saying goes: the best way to learn something is to teach it!

References


9A. Available at in PDF at http://www.faa.gov/library/manuals/aviation/aviation_instructors_handbook/


Our stories all began with a first breath – and then a cry – as we came out of the womb. The sound of the voice – our own and our parents – was our first connection to the outside world. And moving from crying and speaking to singing seems to be a universal human impulse. However, as facilitators of community music groups, we hear many tales of how people’s singing voice was silenced: “Just move your lips” from the teacher, “You be a hummer, dear” from the choir director, “My Sally can’t carry a tune in a basket”, and the ultimate put-down: “Shut Up!”

Many people come to the Native American flute after a long period of lost musicianship, often due to those early, stifling judgments and put-downs. Maybe it is because the flute so closely matches the singing voice in timbre and range, because the breath pressures involved in playing mirror breath pressures in speech ([Goss 2013]), or simply because the style of parlando playing so characteristic of the instrument matches poetic speech ([Nakai 1996]). The birthright of vocal expression, an alternate channel of creativity, a connection back to first breath – all of these are native to Native flutes.

As facilitators, we began integrating vocal elements into Native American flute workshops in 2006. Since then, we have seen substantial benefits with only a few minutes of vocal exploration. Simple practices such as sliding the voice, humming into the flute, and vocal articulation games can add dramatically to expression in flute playing. In particular, the practice of humming in unison with the pitches of the flute seems to create a mental link that makes it possible to play by ear melodies that you know – a major goal of many flute players. At a deeper level, we have seen some flute

This chapter was written by Clint Goss and Lynn Miller. A similar article appeared in the February 2014 issue of Overtones, published by the WORLD FLUTE SOCIETY.
players have dramatic and profound openings when they re-connect with their voice.

**Facilitating Vocal Elements**

Since so many of us have deep-set negative feelings about our singing voice, nudging a group into singing exercises takes care. We usually begin by incorporating vocal elements into a music warm-up. This can be done during stretching and other movement activities:

- Focus on the sound of your own deep breaths. Then shift attention to body sensations during deep breathing.
- Add a humming sound to the breathing. Put your hands over your ears and hum. Make the humming the sound of “MMMM” or “OMMMM”. Feel the vibration, the depth, the infinite.
- Introduce pitch with “sirening” from extremely high pitches down to low pitches and back up.
- You can now introduce a drone sound – maybe from a recording, a group of pre-arranged flutes all holding the same note, or a shruti box or other drone instrument. A fairly prominent drone sound makes people more comfortable with vocalizing.
- Ask them to slide their voices to a steady pitch that they like – one that they think “goes nicely” with the surrounding drone sounds. If they need help hearing their own voice, they can place one or two hands in front of their mouths to direct the sound to their ears.
- Explore sliding up and down to find other places that they think “go nicely” with the drone sounds.

At this point, you’re likely to find the entire room toning or humming in glorious consonance. With some encouragement to the participants to keep toning, you may be able to reduce the volume of the drone support so that their voices are the dominant (or only) sound in the room. The experience of being part of a consonant choir, maybe for the first time in their lives, can be profound.

**Exploring Articulation**

How we begin each note on the flute – the “attack” of the note – dramatically affects the character and emotional feel of our melodies. Most attacks are controlled by the breath and mirror how we vocalize “plosives” like “T”, “K”, and “P” sounds. Vocal articulations games can open up creative possibilities for flute players.

We use several approaches in flute workshops. One is simply to feel the air pressure of various vocal sounds on the back of your hand. Sounds like “Taaa”, “Kaaa”, “Raaa”, and “Haaa” vary dramatically in the sharpness of the air. We then move those vocal sounds onto the flute and explore the difference in sharpness when we attack each note with the mouth dynamics of “Taaa”, “Kaaa”, “Raaa”, and “Haaa”. Playing entire songs with each of the sounds, as well as using no articulation and connecting all the notes, gets players to the point of being able to control which articulation to use.

Another approach is babbling. When we babbled as babies, we were preparing our mouths and muscles for speech. Babies make the same sounds no matter what culture or language they originate from. When you babble, it helps you loosen up all the mechanisms in your mouth to sing. Babbling will take you out of your rational mind and straight into your body. It is also fun!
Move your hands in a quick, pulsing manner. Imitate this movement with your voice, mouth, and tongue. For example: Ba-ba-la-ta-la-ta-ma-ma-ma-ba-ba. Make up your own syllables. Whatever comes out is perfect. Facilitate babbling “conversations” with partners or small groups. Use your hands as you express to each other, one at a time.

Consonants are another way to approach authentic singing. Ar-ti-cu-la-ting them will create rhythm. Play with the sound of:

- “kuh kuh kuh”,
- “puh puh puh”,
- “duh duh duh”,
- “fif fif fif”, and
- “guh guh guh”.

Feel how the consonants are made in different parts of your mouth and throat. Now combine consonants such as: “kuh duh”, “duh guh”, and “dih kah”.

Lead the group in vocalizing “dih kah dih kah dih kah ...” at various speeds. Now keep the breath exhaling on this phrase, but silence the vocal component. You are exhaling in a repeated, pulsating breath pattern. Keep going and bring a flute to your mouth. Can you play a melody while breathing this way?

**Sing What You Play**

After a warm-up and vocal articulation workout, people are usually more open to using their voice. It’s time for the core exercise:

Try humming into your flute. Hold any note on the flute and siren your voice up and down. Can you hear places where the voice and flute sound good together? Can you slide your humming up just a tiny bit and then back down to the place where they sound good? Can you slide down slightly and back up?

Now the leap: try changing to the next higher note on the flute, and then sliding your voice slowly up to that new note. If that works, you could go back and forth between those two notes, sliding your voice each time. Can you slide more quickly and then move your humming in unison with the flute? When that gets easy, try adding one additional higher note – three notes to play with and slide between.

The ultimate goal is to be able to hum in unison with your playing. This involves stepwise melodies and, after a while, incorporating leaps between far-away notes.

This practice eventually becomes “Sing What You Play” – a core practice of many jazz musicians. It also seems to be the best and easiest entry into the world of playing melodies you know on the flute by ear.
Your Key of Flute

When you work in the realm of Sing What You Play, you quickly realize that some keys of flutes are better than others. This is different for each person, and depends on your vocal range. Most novice vocalists sing easily in a range limited to about one octave – the same as most Native American flutes. That’s why most hymns that are sung by a congregation span no more than one octave.

There are many approaches to the question: what is the right key flute for me? Some involve the resonant frequency of the Earth, some are based on body measurements (a traditional “grandfather tuned” approach), and some are based on the span of your hands. While all of these have merit (and hand-span is an important consideration for getting the holes covered reliably), our personal belief is that there is a hugely important consideration: the key of flute that matches your vocal range.

You could explore your most comfortable vocal range by getting the help of an experienced vocalist. However, we think it’s more fun to experiment with Sing What You Play in different key flutes and find what keys work best.

Becoming Adept at Vocal Facilitation

As a facilitator you need to be reasonably adept at an exercise before leading it. The structures and forms that have been described in previous issues of this column have required little in the way of musical experience. However, vocal facilitation calls for a bit more experience.

Working with these exercises, in service of a group you plan to lead, just might be the most rewarding experience for you (as well as your group). And as a side benefit, you’ll find that you can do vocal exercises almost anywhere – including the shower!


The next two pages contain a copy of the “topic map” we developed in 2013 for use in workshops. It has a list of various elements that we use in workshops and flute circles:

- Flute playing techniques and effects
- Song forms
- Performance structures
- Ornaments
- Scales
- Facilitation techniques and structures, and
- Rhythm techniques

The images are printed on two 36” × 48” posters and hung up during workshops. It is useful for several reasons:

- It allows participants to get an overview of the (potential) topics covered.
- It provides a springboard of ideas for ensemble playing, performances, and facilitation.
- It allows participants to ask questions about items they have not encountered, and
- If the facilitator is ever in need of a topic for the next activity, they only need to look over at the topic map.

We are providing a copy of these images, since so many people have found them useful for their sessions. They are also available on-line on the Flute Haven web site at:

http://www.FluteHaven.com/topic_map.htm

This chapter was developed by Clint Goss and Vera Shanov. An on-line version of the topic map images is available at http://www.FluteHaven.com/topic_map.htm.
Part 3 –

Rhythms
World Rhythms

This chapter describes world rhythms that I have collected from various sources. They have proved useful in various facilitation settings.

The rhythms and grooves are notated in either an African drum language or a Middle Eastern drum language.

African Drum Language

This is a variation of the African drum language derived from the Uruba tradition and introduced in the U.S. by Baba Olatunji. It is used for the large African djembe drum.

Gun / Dun – the “bass” notes on a djembe. Hit near the middle of the drum head with a slightly cupped hand and the fingers together. Gun is for the dominant hand and Dun for the non-dominant hand. Also written “B” for bass.

Go / Do – the “tone” sounds on a djembe. Hands are open and flat with the base of the fingers hitting hear the rim of the drum head. Go is for the dominant hand and Do for the non-dominant hand. Also written “T” for tone.

Pa / Ta – the “slap” or “snap” sounds on a djembe. With loose wrists and open fingers, slap near the outer rim of the drum head with a whip-like motion. Pa is for the dominant hand and Ta for the non-dominant hand. Also written “S” for slap.

Middle Eastern Drum Language

This is a variation of the Middle Eastern drum language typically used to describe rhythms for the smaller doumbek (aka darabouka) drum or frame drums.

This chapter is a snapshot of Clint Goss’s working document of collected world rhythms. Various versions of this document have been distributed at various times. Please note that some of these rhythms are subject to copyright claims.
**Dum** – the “bass” note, typically played by hitting the drum head slightly off-center with the right thumb (frame drum) or slightly cupped hand (doumbek).

**Tek** – the “rim tone” sound, typically played on a frame drum with the third finger of the right hand near the edge of the drum and on a doumbek with a flat hand near the edge of the drum head.

**Ka** – the “offbeat” note, typically played on a frame drum with the ring finger of the left hand near the rim and on a doumbek with the tips of the fingers of the left hand near the rim.

### Notation

The rhythms are broken into beats, with spaces between the beats. So:

\[
\text{Gun} \quad \text{Dun} \quad \text{Go} \quad \text{Do} \quad \text{Pa} \quad \text{Ta} \quad \text{—} \quad \text{—}
\]

\[
1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8
\]

… is 8 beats on a djembe with the two “—” beats representing rests (silent beats) on the 6th and 8th beats.

Two equally spaced notes in one beat are written without a space between them:

\[
\text{Gun} \quad \text{Dun} \quad \text{GoDoGoDo}
\]

\[
1 \quad 2 \quad 3 \quad 4
\]

Beats 1 and 2 each have one note, and beats 3 and 4 each have two equally spaced notes (typically 8th notes).

- Djembe 16th notes and 16th notes with 16th rests:

  \[
  \begin{align*}
  &\text{GoDoGoDo} \\
  &\text{GoDo—}
  \end{align*}
  \]

- Pick-up 16th beat: \text{G’Do} equivalent to “---Go Do”

- Emphasis is represented with capitalized: \text{PA}.

- Triplets are three notes in place of two, written with “;” characters around them:
:TeKaKa:

- A full mute is written \([Pa]\), a partial mute is written \(<Pa>\), and a flam (two notes in very rapid succession, almost indistinguishable) is written \(\{PaTa\}\).

### Basic Exercises

#### Basic 4/4 Exercises

developed by Randy Brody

1: \(\text{Gun} \ \text{Dun} \ \text{Go} \ \text{Do} \) | \(\text{Gun} \ \text{Dun} \ \text{Go} \ \text{Do} \)
2: \(\text{Gun} \ \text{Dun} \ \text{GoDo} \) – | \(\text{Gun} \ \text{Dun} \ \text{GoDo} \)
3: \(\text{Gun} \ \text{Dun} \ \text{Go} \ \text{Do} \) | \(\text{Gun} \ \text{Dun} \ \text{Pa} \ \text{Ta} \)
4: \(\text{Gun} \ \text{Dun} \ \text{Go} \ \text{Do} \) | \(\text{Pa} \ \text{Ta} \) – –

#### 4/4 Exercises

developed by Randy Brody

1: \(\text{Gun} \ \text{Dun} \ \text{Go} \ \text{Do} \) | \(\text{Gun} \ \text{Dun} \ \text{Go} \ \text{Do} \)
2: \(\text{Gun} \ \text{GoDo} \ \text{GoDo} \) – | \(\text{Gun} \ \text{GoDo} \ \text{GoDo} \)
3: \(\text{Go} \ \text{Do} \ \text{Gun} \) – | \(\text{Do} \ \text{Go} \ \text{Dun} \)
3alt: \(\text{Pa} \ \text{Ta} \ \text{Gun} \) – | \(\text{Pa} \ \text{Ta} \ \text{Gun} \)
4: \(\text{Gun} \ \text{GoDo} \ \text{GoDo} \) – | \(\text{Gun} \ \text{Pa} \ \text{Ta} \)
5: \(\text{Gun} \ \text{Ta} \ \text{Gun} \ \text{Ta} \) – | \(\text{Gun} \ \text{Ta} \ \text{GoDo} \)
6: \(\text{Gun} \ \text{GoDo} \ \text{GoDo} \) – | \(\text{Gun} \ \text{Dun} \ \text{GoDo} \)

#### Basic Warmup Exercises

from Ryan Camara – DrumCamp 2006

First:
- \(\text{GoDoGoDo} \ \text{PaTaPaTa} \)
- \(\text{GoDoGoDo} \ \text{GunDunGunDun} \)

Second:
- \(\text{:GunDoGo: :DunPaTa:} \)
- \(\text{:GunDoGo: :DunPaTa:} \)
**Basic Cultural Rhythms**

**Congo Square**
from Randy Brody Weston Drum Circle
November 2000

\[\text{Gun Dun GoDo } - \text{Go} \mid \text{Dun Gun Do } - \mid \]
\[\text{I play music with } \text{all my friends} \mid\]

**Dance Beat**
from Randy Brody Weston Drum Circle
1/15/2001. 6/8 time alternating hand triplet rhythm

\[\text{Gun Do Go Dun Go Do} \mid \]
\[\text{Gun Do Go Dun Go Do} \mid\]

**Variation 1:**
\[\text{Go Do Go Do Go Do} \mid \]
\[\text{Go Do Go Do Go Do} \mid\]

**Variation 2:**
\[\text{Gun Do Gun Do Gun Do} \mid \]
\[\text{Gun Do Gun Do Gun Do} \mid\]

**Take 5 Beat**
from Randy Brody Weston Drum Circle
1/15/2001. 5/4 meter

\[\text{DunGo--Go Dun Go Pa } \mid \]
\[\text{DunGo--Go Dun Go Pa } \mid\]

or

\[\text{GunDo--Do Gun Do Pa } \mid \]
\[\text{GunDo--Do Gun Do Pa } \mid\]

**Dakkcore**
[dah-KOHR]
from Anthony at Drum Cafe in Cape Town – 4/9/2001

\[\text{Gun Dun Gun GoDo } - \text{DoGo PA } - \mid \]
\[\text{GoDo --Go Do GoDo } - \text{Go--Do--Go } - \mid\]

**Jara Cedicular**
from Anthony at Drum Cafe in Cape Town – 4/9/2001

\[\text{GoDo } - \text{Do GoDo } - \mid \]
\[\text{Gun DUNGo DunGun Do } \mid\]

\[\text{Jara } - \text{Ce dicu lar } \mid \]
\[\text{Ja RA Ce dicu lar } \mid\]

**Moroccan 3–6–9 Folk Rhythm Combo**
for 3 Doumbeks – from Randy Brody via John Marshall

**Three:**
\[\text{Tek TeKa Dum } : \mid \]

**Six:**
\[\text{Tek TeKa Dum } : \mid \]
\[\text{Tek Dum Dum } : \mid\]

**Nine:**
\[\text{Tek TeKa Dum } : \mid \]
\[\text{Tek Dum TeKa } : \mid \]
\[\text{Dum Tek Dum } : \mid\]
**Fanga**
from Randy Brody. Nigerian Welcome Song

*Drum part 1:*

Gun –Go – D’Go | Gun Dun GoDo – |

Let's take a drive to Mac Donalds |

*Drum part 2:*

Gun Dun Gun –Dun GoDo |

Gun Dun Gun PaTa |

*Voice:*

Fanga alafia, ah-shay ah-shay
Welcome well-being, may it be so

Fanga alafia, ah-shay ah-shay
Welcome well-being, may it be so

Ah-shay Ah-shay, Ah-shay Ah-shay,
May it be so, may it be so

Fanga alafia, ah-shay ah-shay
Welcome well-being, may it be so

Fanga

from R. Clark, Gainsville, FL.
clar@acceleration.net.
www.acceleration.net/clark/. see
www.djembe.net/share/Fanga.htm

Break b--b--t-- | b-b-tt--

Break b-b-tttt | b-t-tt--

Djembe: b--t-tt-- | b-b-tt--

Gun –Go – D’Go | Gun Dun GoDo – |

Djembe: tt--tt-- | tt--tt--

GoDo – GoDo – | GoDo – GoDo – |

Djembe: b--b-btt | b--bb-bt

Gun –Dun – G’GoDo | Gun – D’Gun

GoDo |

Djembe: b--b-btt | b-b-bbtt

Djembe: b-bb-b-b | b-b-bt-b

*Bass:*

b--b---- | b-b----- |

*Voice (Yoruban language):*

Fanga alafia, ah-shay ah-shay
Fanga alafia, ah-shay ah-shay
Ah-shay Ah-shay, Ah-shay Ah-shay,
Fanga alafia, ah-shay ah-shay

Ikabo alafia, ah-shay ah-shay
Ikabo alafia, ah-shay ah-shay
Ah-shay Ah-shay, Ah-shay Ah-shay,
Ikabo alafia, ah-shay ah-shay

Eleba alafia, ah-shay ah-shay
Eleba alafia, ah-shay ah-shay
Ah-shay Ah-shay, Ah-shay Ah-shay,
Eleba alafia, ah-shay ah-shay

**Fanga**

[FAHN-gah]
from Thomas Wright. See
www.djembe.net/share/Fanga.htm

Djembe: b--bb-tt | -b-bb-ss |

Bass: --SS---- | ----S-S- |

Bell: H-HH-HH- | H-H-H-H- |

Bass: KK--KK-- | KK--KK-- |

Bell: ---H---H | ---H---H |

Bass: D------- | D-D----- |

Bell: L-L-L-L- | L-LL-LL- |

Each dunun (sangban, kenkeni, dununba) has its own bell part, notated directly below its line. The djembe is a “part 2”.

**Misc Rhythm**
from 6/19/2006 Randy Brody drum circle

**Djembe:**

GoDo GoDo Go GoDo |

Gun Dun Gun GunGoDo |
| GoDo  GoDo  Go  GoDo  | Gun  Dun  Gun  GunDo  |

**JuJu**
some parts from Bashiri Johnson’s Supreme Beats JuJu samples.

**Low Congas:**

| —GoDo  |

| GunDunGoDo —GoDo  
GunDunGoDo —GoDo  |

**Lead Drum:**

| Dun—— Go —Gun–  
Dun——Go —Gun–  |

**Djoli**

[joh-LEE]
(West African -> Brazil -> Became the Samba rhythm). Walk the big dog is the calypso rhythm, according to Mary Knysh, 2/13/2010.

**Randy Brody Part 1:**

| (Mary Knysh)  |

| Gun –Do Gun Do  | GunDO –Do Gun Do  | Walk theBigDog  | WalkING the BigDog  |
|  |

| Walk theFatDog  | Trip ON theFatDog  |
| (Mary Knysh)  |

**David Darling counterpoint:**

| GunDoGoDo  Pa–Do–  |

| Watermelon Ice Cream  |

**Randy Brody Part 2:**

| GoDoGoDo  Go –Do Go –Gun  |

| I don wanna walk –thedog –now  |

| GoDoGoGo Go –Do Go –Gun  |

| I don wanna walk –thedog –now  |

**Randy Brody Part 3:**

| Pa –Ta PaTaGoDo  | Pa –Ta  
PaTaGoDo  |

| Walk the BigDogOhPlease  | Walk the BigDogOhPlease  |

**Randy Brody Part 4 (Solo):**

| GunDoGoDo GunDoGoDo  |

| GunDoGoGo GunDoGoDo  |

**Randy Brody Part 5 (Solo):**

| PaTa –Ta PaTa –Ta  |

| PaTa –Ta PaTa –Ta  |

| Gun  Dun  |

| SCRATCH MY back and I'LL  |

| SCRATCH YOUR shoulder  |

from [Dworsky 2000]:

| Go  DoGo –Do GunDun  | Go  Do  
GoDo GunDun  |

| Gun DoGo Go GoDo GoDo  | Gun DoGo  |

**Traveling Solo Game based on Djoli Samba Rhythm**
(Around the room solos, with space for individuals to solo)

| GunDO –Do Gun Do  | – – – –  |

| Trip ON the Fat Dog  | (each person solos)  |

**Egyptian/Bedouin Seven (“Moon Fever”?|)
(Egypt March 2005)

**Doumbek:**

| Dum – K’Tek Tek  |

| Dum – K’Tek Dum  |

| K’Tek Dum  |

| K’Tek  |
Dum – K’Tek Tek
Dum – K’Tek Dum
- - (Sqk) -
(Sqk) - |

Djembe:
Gun – D’Go Do
Gun – D’Go Gun
- D’Go Do Gun
- D’Go |

Gun – D’Go Do
Gun – D’Go Gun
- - (Squeek) -
(Squeek) – |

Baya
[BYE-yah]
from Randy Brody and Mary Knysh

Round in 4 parts:
GoDoGoDoGun Gun Gun Gun |
Gun GoDoGoDoGun Gun Gun |
Gun Gun GoDoGoDoGun |
Gun Gun Gun GoDoGoDo |

Nigerian Frekoba in Four
from Randy Brody

Part 1:
Gun Dun Go Do Gun Dun Go Do |
Gun Dun Go Do Gun Dun Go Do |

Part 2:
Gun Dun GoDoGoDoGun Dun Pa Ta |
Gun Dun GoDoGoDoGun Dun Pa Ta |

Part 3:
Gun Dun GoDoGoDoGun PaDo PaDo |
Gun Dun GoDoGoDoGun PaDo PaDo |

Baladi
[bah-lah-DEE]
Egyptian Rhythm – from Randy Brody Weston Drum Circle 11/21/2005. Minor variations by Clint to make it a 8-bar cycle:

Dum Dum TeKa Tek | DumTeKa Tek TeKa |
Dum Dum TeKa Tek | DumTeKa Tek TEK |
Dum Dum TeKa Tek | DumTeKa Tek TeKa |
Dum Dum TeKa Tek | DumTeKa Dum |

Grape fruit cantaloupe| peach cantaloupe apple|

Ayub
[ah-YOUB]
from Randy Brody – 12/9/2005. Companion rhythm to Baladi (Ayub uses lower drum, Baladi uses higher)

DumTeKa DumTek | Dum TeKa DumTek |
Gun DoGo Dun Go | Dun DoGo Dun Do |

Strawberry grape fruit| strawberry grape fruit |

West African 3/4 Polyrhythm
from Randy Brody – 12/4/2005

West African Three:
Gun GoDo Go | Gun GoDo Go |

West African Six:
GoDo GoDo GoDo | Gun Dun Gun |

West African Gankogui (bell or drum):
Gun Do Go | DoGo Do Go |
Dun Go Do | GoDo Go Do |
Please pass the tartar sauce oh |
Low HI HI | HI HI HI HI |
Basic 3/4 Rhythm heard on Native track
– 12/8/2005

Gun –Do GoDo | Gun –Do GoDo |

Cinte
[SIN-tay]
from Randy Brody – 12/9/2005

Go GoDo Gun Do | Gun Do Gun
Do | Quick take a bite and| chew and chew
and |

Dogon
from Randy Brody – 12/9/2005

GoDo GoDo Gun Go | GunDo
Go – DoPa | Chicken fingers French fries | and a
Coke – its good |

Hoo Roo
from Randy Brody – 12/9/2005

1: Gun Dun Gun G’Do |
2: [PA] GoDo D’Go – | |
3: GoDo Gun GoDo Gun |
4: GoDo—GoDo—GoDo—Go |
5: Pa Ta {PaTa} Pa |

Masmoudi Kebir (8/4)
from Jeff Senn web site. Masmoudi Kebir (Kebir = “big”) is also known as “Warring Masmoudi” (due to its aggressive cadence), it is a common masmoudi played for Middle Eastern Dance, and this 8 beat measure is really the basis for many other rhythms.

Dum Dum TeKaTeKa Tek |
Dum–TeKa TeKaTek– TeKaTeKa Tek |

Maqsoum (4/4)
[mahk-SOOM]
from Jeff Senn web site. Maqsoum (which means, “cut in half”) is really a whole class of rhythms that fit in a 4 beat measure. The maqsoum is quite basic to Middle Eastern rhythm; maqsoums, and 8 beat measures formed by concatenating a maqsoum with another 4 beat measure, form a rhythmic basis for much Middle Eastern music. This version is a simple and very basic version.

Basic:
DumTek –Tek Dum– Tek– |

Filled in:
DumTek TeKaTek–Dum–TeKa Tek–TeKa |

Masmoudi Saghir – Beledi (4/4)
from Jeff Senn web site. Beledi is a commonly requested dance rhythm – just about everyone knows it (and many dislike it because it is so common). Unfortunately “Beledi” means different rhythms depending on where you are. “Beledi” really implies a sort of gypsy-ness or non-urbaness (possibly “hick”, depending on who you ask). This version, more correctly called Masmoudi Saghir (“Small” Masmoudi) is perhaps the most common “Beledi” rhythm. If you look closely you will see that it is really a Masmoudi “squeezed” into 4/4 time.

Basic:
DumDum TeKaTek– Dum–TeKa Tek |

With bridge:
DumDum TeKaTek– Dum–TeKa Tek–TeKa |

Walking Maqsoum (4/4)
from Jeff Senn web site. Walking Maqsoum is another rhythm sometimes called Beledi – especially among Middle Eastern Dancers in the Western U.S. A “walking” rhythm is one that
has a even or steady (not very syncopated) beat – presumably reminiscent of a steady walking footfall.

**Basic:**

\[
\text{Dum} \quad \text{Ka} \quad \text{Te} \quad \text{Ka} \quad \text{Dum} \quad \text{Ka} \quad \text{Tek} \quad |
\]

**With bridge:**

\[
\text{Dum} \quad \text{Ka} \quad \text{Te} \quad \text{Ka} \quad \text{Dum} \quad \text{Ka} \quad \text{Tek} - \text{Te} \quad \text{Ka} \quad |
\]

**Ayyub (2/4)**

from Jeff Senn web site. Ayyub is a simple fast rhythm often played for accelerating or energetic sections of Middle Eastern Dance performance. It is a driving rhythm that somehow “wants” to get faster and faster. Ayyub fits well within other rhythms and can be generally useful as an accent – however played too long, it does get monotonous …

**Basic:**

\[
\text{Dum} \quad \text{K'Dum} \quad \text{Ka} \quad |
\]

Filled version:

\[
\text{Dum} \quad \text{Ka} \quad \text{Te} \quad \text{Ka} \quad |
\]

**Advanced Cultural Rhythms**

Here are a few more complicated rhythms, but ones that are still very commonly used as basic rhythms in music and dance in various parts of the Middle East.

**Karsilama (9/8)**

[\text{Karsh-la-MAH}]

from Jeff Senn web site. Karsilama (Turkish for “face-to-face”) is a very common 9 beat rhythm – it is, perhaps, the most common “odd count” rhythm in Middle Eastern music. It is very common in Turkish tunes, and is probably Turkish in origin. It can be played very fast, or very slow, and can be filled in many ways. It is a particularly popular rhythm among Middle Eastern dancers.

**Basic:**

\[
\text{Dum} \quad \text{– Tek} \quad \text{Dum} \quad \text{– Tek Tek Tek} \quad |
\]

Filled:

\[
\text{Dum Ka} \quad \text{Ka Tek Ka} \quad \text{Ka Dum Ka} \quad \text{Ka Tek} \quad \text{Tek} \quad |
\]

**Ciftetelli (8/4)**

from Jeff Senn web site. Ciftetelli is probably Greek or maybe Turkish in origin. It is usually played slowly and with a variety of fills. Remember when playing this rhythm that silence is a note! “Cifti” is characterized by strong accents on 1, 3 1/2, 6 and often 5. It has a unique character – the strong beat on 3 1/2 makes it sound like it “turns around” in the middle and the rest at the end (if not filled in) is a dramatic pause. Here is one version:

**Basic:**

\[
\text{Dum–Te} \quad \text{Ka Tek Tek} \quad \text{Te} \quad \text{Ka Dum– Tek} \quad |
\]

Filled:

\[
\text{Dum–Te} \quad \text{Ka Tek Tek} \quad \text{Te} \quad \text{Ka Dum– Tek– Tek} \quad \text{Te} \quad \text{Ka} \quad |
\]

\[
\text{Dum} \quad \text{Dum} \quad \text{Te} \quad \text{Ka} \quad \text{Te} \quad \text{Ka} \quad \text{Te} \quad \text{Ka} \quad \text{Tek} \quad |
\]

more filled in – don't over-do it though!

**Cifteteli (4/4)**

from Darbuk.Ka. The Cifteteli rhythm, originally from Turkey, entered the Arabic world with the expansion of the Ottoman Empire. In fact, Chifteteli is how Belly Dance is named in Turkey and Greece. It is also known as “camel rhythm” because it is very appropriate for this kind of movement of the oriental dance. It is a 4/4, very common in popular Turkish music, so it would be the equivalent to the Egyptian Maksoum.

**Darbouka:**

\[
\text{Dum} \quad \text{– Te– Ka} \quad \text{Dum– Dum– Tek} \quad |
\]

**Djembe:**

\[
\text{Gun} \quad \text{– Go– Do Gun– Dun– Go} \quad |
\]
**Zumbaty (4/4)**
from Darbuk.Ka. There is also an Egyptian rhythm, quite similar to Cifteteli, known as Zumbaty, coming from Sumbat, a village in the Nile Delta, home to Gawazy dancers and singers who travel to Cairo to try their luck and settle in the mythic Muhammed Ali Street, the centre of the artistic life in Cairo since the XVI century.

**Darabouka:**
Dum –Te–Ka Dum –Tek

**Djembe:**
Gun –Go–DoGun –Go

**Serto (4/4)**
from Jeff Senn web site. Serto is a Greek rhythm. It alternates accent on every other measure:

Dum K’Dum –Ka TeKa

Dum K’Tek –Ka TeKa

**Saidi (4/4)**
[Seye-EE-dee]
from Jeff Senn web site. Saidi is a rhythm often used for a cane dance. The beats at 4 (and sometimes 3 1/2) can be varied dramatically or replaced with other percussion (such as hand clapping) to give the rhythm a distinct sound.

**Basic:**
Dum–KaTe–KaDum– Dum Tek

**Filled:**
Dum–KaTe–KaDum– Dum–TeKa

**Tek–TeKa**

**Rumba (4/4) and Bolero (4/4)**
from Jeff Senn web site. Rumba and Bolero are similar rhythms with different accents. Bolero is often played with a “triplet” in the second half of the first beat. A triplet is 3 beats fit into a 2 beat space. Both rhythms have made their way from North Africa through Spain and Cuba into modern music.

**Rumba:**
Dum–teka teKA teKA DumKa

**Bolero:**
Dum–:tekaka: Teka Teka DumKa

**Three-Five Rhythm (8/4)**

**Otha Turner Rhythm from Shimmy She Wobble (4/4)**
4/30/2006
GUN D’GoDo –G’Do GunDo

**Syncopated and Odd Meter Rhythmic Exercises**

These exercises were distilled from sessions and workshops facilitated by Mary Knysh and David Darling, and hosted by the Music for People organization. They are designed for group work in developing and improvising grooves, especially syncopated rhythms and complex meters.

The notation here is different from the African and Middle Eastern Drum language.

The **Drum** version of each uses the Gun and Dun sounds on a djembe, but represents the silent beats with L and R “silent” hits in the thigh.

The **Voc(al)** version is useful for a group that is vocalizing the rhythm over body percussion. The upper row is the vocalization and the lower
row represents finger snaps or slaps on the thighs or chest with the L and R hands.

**Three-Two Clave Syncopation (4/4)**

**Voc:**

Go – Do – Go – | Da – Da –
R L R L R L R L | R L R L R L

**Twelve-Eight GoGeh Syncopation (12/8)**

**Drum:**

Gun L Gun L Gun L | Gun L R Dun R L |

**Vocal:**

Go – Go – Go – | Geh – Geh –
R L R L R L | R L R L R L

**Inverted Three Syncopation (3/4)**

**Drum:**

Gun L Gun L Gun L | Gun Do R Do R Do |

**Vocal:**

Go – Go – Go – | Go Geh – Geh – Geh |
R L R L R L | R L R L R L

**Five Four Grooves (5/4)**

**Drum:**

Gun L R Dun R | Dun R L Gun L |

**Vocal:**

CHI Ki Da GA Da | GA Da CHI Ki Da |
GA Ma La TA Ki | TA Ki GA Ma La |
R L R L | L R L R L

**Seven Eight Grooves (7/8)**

**Drum:**

Gun L R Dun R Dun R | Dun R L Gun L |

**Vocal:**

CHI Ki Da GA Da Ga Da | GA Da Ga Da |
GA Ma La TA Ki Di Mi | TA Ki Di Mi Ga Ma La |
R L R L R L R L | R L R L

**Beatriz Pinto Rhythm (4/4)**

– from AOI 2006

Gun Go{PaTa} – Go Go Go DoGo | Gun GoDo GoDo–Do |

**Misc Rhythm (4/4)**

– from AOI 2006

Do Gun Do Gun Do | Gun – – – |
I’m going to the | store |

**Rhythms from Drum Camp 2006**

These are rhythms learned from the various facilitators and instructors at Drum Camp 2006 in Ashland, Oregon.

**West African Rhythms**

**Mane (12/8)**

[MAH-ney]
from Lamine “Dibo” Camara, Drum Camp 2006

Go–Go Do–Do Go–Go Do–Do | Go–Go Do–Do GoDoGo Dun Go Dun |
Casabe (4/4)

[Cah-sah-BEY]
from Lamine “Dibo” Camara, DrumCamp 2006. Composite modern (1950’s) rhythm from two traditional rhythms from two different Guinea tribes. Currently a symbol of liberation. Part 2 is the CaSAH rhythm.

Part 1:
GunDun Go GunDun Go |
GunDun GoDo–Do Go |

Part 2:
Go –Do Go GunDun |
Go –Do Go GunDun |
or
Pa –Ta Pa GoDo |
Pa –Ta Pa GoDo |

Core 12/8 Rhythm
from Ryan Camara, DrumCamp 2006

Part 1:
Pa–Do Pa— Pa–Do Pa— |
Part 2:
Pa— TaGoDo Pa— TaGoDo |

Bell Triplets (12/8)
from Ryan Camara, DrumCamp 2006. Three flavors:
BB– BB– BB– BB– |
B–B B–B B–B B–B |
–BB –BB –BB –BB |

Standard break in 4/4
from Ryan Camara, DrumCamp 2006

{PaTa} GoDo – GoDo | Pa PaTa Pa – |

Standard break in 4/4
from Kalani, DrumCamp 2006

Basic:
{PaTa} Go Do Go | Do PaTa Pa – | End/Flam

Standard:
{PaTa} GoDo –Go –Do | Go PaTa Pa – | End/Flam

Standard break in 3 / 4
from Ryan Camara, DrumCamp 2006

{PaTa}–Go Do–Go Do–Go | DO

Cool Triplet Rhythm
from Ryan Camara, DrumCamp 2006

—Go | Dun–Go DunGo– – – |

Really Common Accompaniment
Rhythms in 4
from Kalani, DrumCamp 2006. Can be used separately or together:

1:
Pa –Ta Pa GoDo |

2:
Gun GoDo – Pa | (more rhythmic)
Gun DoGo – Ta | (faster to play)

Echauffement
from Kalani, DrumCamp 2006. French for “heating up” … typically used by the lead drummer before a break to call attention to the upcoming break.

GoDoPaTa PaTaPaTa PaTaPaTa
PaTaPaTa |
GoDoPaTa PaTaPaTa PaTaPaTa
PaTaPaTa |
GoDoPaTa PaTaPaTa PaTaPaTa
PaTaPaTa |
GoDoPaTa PaTaPaTa {PaTa} – |
**Yankedy**

*YAHN-keh-dee*

from Kalani, DrumCamp 2006. Full-moon socializing dance, Sousou ethnic group – dance of seduction – done with scarves – 2 people hold the scarves. Part 1 and Part 2 are probably doundoun parts.

**Part 1:**

\[
\text{Gun} \quad -\text{Dun} \quad \text{Gun} \quad -\text{Dun} \quad | \quad \text{Gun} \quad -\text{Dun} \\
\text{Gun} \quad -\text{Dun} \\
\]

**Part 2:**

\[
\text{[Gun]} \quad -\text{Dun} \quad \text{Gun} \quad \mid \quad \text{[Gun]} \quad -\text{Dun} \quad \text{Gun} \\
\]

**Djembe:**

\[
\text{D’Gun Go} \quad \text{D’Gun D’Go} \quad \mid \quad \text{D’Gun Go} \quad \text{D’Gun D’Go} \quad \mid \quad \text{<-cool!}
\]

Second part of Yankedy from Mohamed Camera, Drumcamp 2006, with triplets:

\[
\text{Pa–Ta Go–Do PaTa– —Gun} \mid \quad \text{Pa–Ta Go–Do PaTa– —Gun} \\
\]

**Makru**

*MAH-crew*

from Kalani, DrumCamp 2006. Seduction dance follows Yankeddy. Pt1 is on Dodumbah. Pt2 is on Sangban.

**Part 1:**

\[
\text{Gun} \quad \text{D’Gun} \quad \text{GoDo} \quad \text{Go} \quad | \\
\]

**Part 2:**

\[
\text{[Gun]} \quad -\text{Gun} \quad \mid \quad \text{[Gun]} \quad -\text{Gun} \\
\]

**Djembe 1:**

\[
\text{Gun} \quad \text{GunTa} \quad \text{GunDo} \quad \text{GunTa} \quad | \quad \text{Gun} \quad \text{GunTa} \quad \text{GunDo} \quad \text{GunTa} \\
\]

**Djembe 2:**

\[
\text{GunDo} \quad -\text{Do} \quad \text{Go} \quad \text{Ta} \quad | \quad \text{Gun Do} \quad \text{Gun Do} \quad | \\
\]

Cool third part for Makru from Ryan Camara:

**Djembe 3:**

\[
\text{Gun} \quad -\text{Ta} \quad -\text{Go} \quad \text{Do} \quad \mid \quad \text{Gun Ta} \quad -\text{Go} \quad \text{Do} \quad | \\
\]

**Yolele**

*yoh-LEH-leh*

from Mohamed Camera, DrumCamp 2006. Part 1 is triplets. Is Part 1 and Part 2 4 against 3??

**Part 1:**

\[
\text{Pa–Pa TaGoDo PaDunGo DoGoDo} \mid \text{etc.} \\
\]

**Part 2:**

\[
\text{Pa} \quad \text{GoTa} \quad \text{Gun} \quad | \quad \text{PaDo} \quad \text{GoTa} \quad \text{Gun} \quad | \quad \text{etc.} \\
\]

**Break:**

\[
\text{PaTaPa} \quad \text{TaPaTa} \quad \text{PaTaPa} \quad \text{PaTaPa} \quad \text{PaTaPa} \quad | \quad \text{PaTaPa} \quad \text{TaPaTa} \quad \text{PaTaPa} \quad \text{PaTaPa} \quad \text{Gun} \\
\]

**Clave Rhythms**

“Clave” means “key” or “cornerstone” or “peg”. “Hemeola” is a 3-feel over a 2 pulse, or two pulses in different places of the same rhythm. The “B” is used to indicate a bell strike or a “beat”.

**Son Clave – aka 3-2 Clave or “Straight” Clave**

from Kalani, DrumCamp 2006

**Beats:**

\[
\text{B} \quad -\text{B} \quad -\text{B} \quad | \quad \text{— B— B— — } \\
1 \quad 4 \quad 7 \quad 3 \quad 5 \\
\]

**Spacing:**

\[
3 \quad 3 \quad 4 \quad 2 \quad 4 \\
\]

**Vocal:**

\[
\text{Takaday} \quad \text{Takaday} \quad \text{Takadimi} \quad \text{Taka} \quad \text{Takadimi} \\
\text{Gamalah} \quad \text{Gamalah} \quad \text{Takadimi} \quad \text{Gama} \quad \text{Takadimi} \\
\text{Chikida} \quad \text{Chikida} \quad \text{Gadagada} \quad \text{Chiki} \quad \text{Gadagada} \\
\]

Bell part against Son Clave (H=High bell, L=Low bell):

**Bell:**

\[
\text{H– LL} \quad \text{H– LL} \quad | \quad \text{H– L– H— — } \\
\]
Son Clave:
B–B — B– | — B– B– — |

Brazilian Clave – aka Chin Bao
from Kalani, DrumCamp 2006. Son Clave with
and eigth delay on the last note.

Beats:
B––B — B– | — B– B– — |
1 4 7 | 3 6 |

Spacing:
3 3 4 3 3

Vocal:
Takaday Takaday Takadimi Takaday
Takaday
Gamalah Gamalah Takadimi Gamalah
Gamalah
Chikida Chikida Gadagada Chikida
Chikida

Rhumba Clave
from Kalani, DrumCamp 2006. Son Clave with
the bars inverted and starting in a different
place:

Beats:
B– B– — B– |–B — B– — |
1 3 7 | 2 5 |

Spacing:
2 4 3 3 4

Vocal:
Taka Takadimi Takaday Takaday
Takadimi
Gama Takadimi Gamalah Gamalah
Takadimi
Chiki Gadagada Chikida Chikida
Gadagada

Rhumba Rhythm
from Kalani, DrumCamp 2006. Completely
different than Rhumba Clave.

Beats:
B– B– — B– | — B– B– — |
1 4 8 | 3 5 |

Spacing:
3 4 3 2 4

Vocal:
Takaday Takadimi Takaday Taka
takadimi
Gamalah Takadimi Gamalah Gama
Takadimi
Chikida Gadagada Chikida Chiki
Gadagada

Afro-Cuban Clave in 6
from Sue Lundquist, DrumCamp 2006

Beats:
B– B– B– |–B — B– — |
1 3 5 | 8 10 |

Spacing:
2 2 3 2 3

Vocal:
Taka Taka Takaday Taka Takaday
Taka Taka Gamala Taka Gamala
Gada Gada Chikida Gada Chikida

Tuareg Clave in 9/4
[TWAH-reg]
from Abdul and Hassan drummers in
Ouarzazate April 2007. The “B” are the low
beats, and the “H” is a high hit (B=Gun, H=Do
on djembe)

Beats:
B––B — B– | — — B– B– H–|
1 4 7 | 5 7 9 |

Spacing:
3 3 6 2 2 2

Vocal:
Takaday Takaday Takadimidimi Taka
Taka TAKA
Gamalah Gamalah Takadimidimi Gama Gama TAKA
Chikida Chikida Gadagadagada Gada Gada GADA

Bob Bloom Clave
from Bob Bloom’s 12/31/2011 Drum performance in Westport. The “B” are the low beats, and the “H” is a high hit (B=Gun, H=Do on djembe)

Beats:
B– –B — — |B– B– — — |

Spacing:
3 5 2 6

Vocal:
Takaday Takadimidimi Taka
Takadimidimi
Gamalah Takadimidimi Taka
Takadimidimi
Chikida Gadagadara Chiki
Gadagadagada

Brazilian Rhythms
These are typically done on the conga drum, with the Gun/Dun as “bass” and Go/Do as “tone”. Pa/Ta slaps are often closed, written (for example) [Pa]..

Bakoso – Brazilian Conga in 6
[bah-KOH-soh]
from Sue Lundquist, DrumCamp 2006

Part 1:
Gun GunDun GoDo | Gun GunDun GoDo |

Part 2:
Dun GoDun [Pa] | Dun GoDun [Pa] |

Part 3:
Go GunDun [Pa] | Gun GunDun [Pa] |

Bell:
B  B  BB | –B –B –B |
You seeJoJo | –Go–Go –Did |

Part 2 and 3 can be done as “say it-play it” with “Kin KaNee – Kin KaNee –” – without the [Pa] – as in the name of the drum that usually plays that part. This plays well in counterpoint against the Bell part shown. This was taught to me by Miguel in Kiental, Switzerland at the Music for People gathering, July 2007.

Marcha Pattern for Conga – 8-beat
from Kalani, DrumCamp 2006. Slow for ChaCha, Fast for Rhumba or Momba

Hand Finger Slap  Finger
Hand Finger Tone  Tone
L  L  R  L
L  L  R  R

Mute Mute Mute Mute
Mute Mute Open Open

Marcha Pattern for Conga – 6-beat
from Kalani, DrumCamp 2006. For low and high drums:

Low:
Hand Finger Slap  Finger Tone  Tone
L  L  R  L  R  R
Mute Mute Mute Mute Open Open

High:
Slap  Finger Tone  Tone  Hand Finger
R  L  R  R  L  L
Mute Mute Open Open Mute Mute
Rhumba Guaguanco
[wah-WAHN-co]
from Kalani, DrumCamp 2006. For conga – not straight rhythm … use a ‘rolling egg’ varying rhythm:

Go [Do]Go –[Do] [Go][Do] | [Go] [Do]Gun –[Do] [Go][Do] |
R L R L R L R L R L

Bell part is rhumba rhythm offset by one bar:

Bell:
— B— B — | B— –B — –B |

Capawera
[Cah-pah-WEH-rah]

Constitution Museum Rhythm
from Constitution Museum, Philly, ?2006?

Beats: BBBB B–B– B–BB BBB– |

Morph -
Morph “Walk the Big Dog” into “The Big Dog Walks” … which is a different rhythm that I’m familiar with from Randy’s drum circles …

D’Gun Dun Gun – |

Afro-Cuban Rhythms

Core Afro-Cuban Rhythm for BaTA drum
from Sue Lundquist, DrumCamp 2006

GunDoGun Do –|Gun Dun Go –|

Bomba

Basic Rhythm – easier to play straight:
Gun –Dun –Go Do |

Version to use if playing silent taps on all 8ths:
Gun –Dun –Do Go |

Conga de Comparsa
from Sue Lundquist, DrumCamp 2006. Comparsa is the group that plays the conga. Played with the fat end of a drum stick on conga – two tones: “M” muted (with left hand) and “O” open.

Basic:
M— M— M—O —— |

Variation 1:
??

Variation 2:
M–M– —M– M—O —— |

Break:
M–M– M–M– M–M– M–M– |
(crescendo)

Variation 3:
M—O —M– M—O —— |
M–M– M–M– M—O —— |

Long Bell
from Pete Barnhart, Drumming class Dec 14, 2006. Only a few parts recalled, and this needs to be checked for accuracy!!

Note the variation in the bell part from the Bakoso Brazilian bell part. These two rhythms work together!

Djembe:
Gun Go Pa GunTa–Do –Dun |

Djembe:
{PaTa} PaTa Pa PaTa –Ta Pa– |
Bell:
B B B BB –B –B |
You see Jo JoGo –Go –Did |

**Arabic Rhythm**

from guy in Fes who sold Vera the leather coat Apr 11, 2007. Called “Lalam Namah” by the leather store guy.

Works as a part in ¾ time, but also as a 4/4 time with triplets. This rhythm really best on a low and high drum pair, like bongos, with the Do being the high-note drum. This is the ¾ version:

**Djembe:**
GunDun –Gun Do– Gun– DunGun Do– |
R L R L R L R L |

… and the 4/4 version with triplets:
GunDun– Gun–DoGun–Dun GunDo–|

**Ted Natale Simple Rhythm**

from “Djembi Jam” track 5 of Jeff Ball free downloads

**Djembe:**
Gun– –Do Gun– –Do |
Gun– — Do– — |

**Cool Rhythm heard in some song**

February 2007

**Djembe:**
— Gun– Gun– GunDun |
–Gun Dun– GunDun Gun– |

**From “Laila” – Best of Bollywood**

in iTunes database

**Djembe:**
Gun– –Do Gun– –Do |
Gun– –Gun DoGoDo– —— |

**From “Migra” – Santana**

in iTunes database. Cool rhythm – need to transcribe!

**Clave-style rhythm of Jim Oshinsky**

Oct 14, 2007

**Djembe:**
Gun– GoDo–Go Do– |
Gun— — –Do |

**Two Georgian Rhythms of the Georgian Dance Troupe**

Oct 28, 2007

**Djembe:**
:Gun–Go: :DoGoDo: :GoDoGo: |
:DoGoDo: |

**Guiro Rhythm**

from woman in town North of Cusco we went to for the day March 2008. Can be played in Three or fast 6/8 two-beat.

**Guiro:**
Down DownUp– | Down DownUp– |
Down–Down Up— | Down–Down Up– |

**Flowing**

rhythm used in first of the “Five Rhythms” of Gabrielle Roth. From Randy Brody 12/1/2008:

**Djembe:**
Gun– Dun– GunDun –Gun |
–Dun –Gun Dun– Dun– |
Gun– Dun– GunDun –Gun |
–Dun –Gun Dun– — |
**Kung Fu Panda**
rhythm used in Kung Fu Panda, heard 11/29/2009:

**Djembe:**

Gun— D— Gun— Gun— Dun— |

— — GoDoGoDo |

**Darling Warmup**

David Darling warmup groove 2/12/2010:

**Djembe:**

… … — Gun— |

Dun— Go— Do— Go— Do— — Gun— |

**Brazilian Carnival Rhythm**

from Mary Knysh 2/13/2010. Notice that this is an odd number of drum beats, so the hands switch every cycle.

**Djembe:**

Pa— Ta— Gun— Dun— |

PaTa— Gun— Dun Gun— |

Eee Zhay Ya Ya |

EeZay— Ya— Ya— Ya |

Ta— Pa— Dun— Gun— |

TaPa— Dun— Gun Dun— |

Eee Zhay Ya Ya |

EeZay— Ya— Ya— Ya |

**Klezmer Rhythm**

Classical Klezmer group in Krakow March 2010:

**Djembe:**

Gun— DoGun— Gun Do— |

**Rhythm**

Invented April 2010 (NOTE: Interleaves with prior rhythm!!):

**Djembe:**

Gun— Gun Pa— Gun Pa— Gun Pa— |

— — [Gun Pa]— [Gun Pa]— |

**Vera Clave**


**Djembe:**

| Gun— D— Gun— Go— Do |

Gun— D— Gun— Do— Go— Do |

Gun— D— Gun— Do— Go— Do— Go |

**Rhythm from Angelique Kidjo Improv**

Heard at Newport Jazz Fest Aug 2011.

**Vocal:**

| DiKa DiKa Do— Dah— Do— — — |

… into …

| DiKa DiKa DiKa DiKa Do— Dah— Do— |

**Twelve Rhythm**

Heard in Bern, Switzerland, Summer 2007

**Djembe:**

| Go— Go Pa— Go Go Pa— Go Pa— Go Pa— Go Pa— Go Pa— |

Actually a melody in minor mode like AADAAEAFAEA. Recorded as a riff on the Zoom H4 as STE-102.mp3 in Dec 2011 on the Wing.

**References**

“Darbik.Ka” is a two CD set with extensive liner notes. With Khamis Khenkesh and Mohamed El Sayed.


Part 4 –

Sheet Music
Sheet Music Introduction

The remainder of this handbook has sheet music transcriptions for a wide range of songs. All of these transcriptions are posted on Flutopedia, along with substantially more information than can be fit into this handbook:

- Versions with inverted finger diagrams;
- Performance notes;
- Background information on the song; and
- Audio recordings.

While it may be convenient to play off these printed sheets, please look over the information on Flutopedia:


Also, please realize that some of these songs have associated copyright restrictions.
Amazing Grace
Low Register Version

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Traditional melody, lyrics by John Newton
arranged by Clint Goss

Amazing... Grace how sweet the sound. That saved a poor wretch like me.

once was ... lost but now am found. Was...

blind but ... now I see.

*These notes are substitutes for notes that cannot be played easily on Native American flutes.
Amazing Grace
High (Extended Range) Version

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Traditional melody, lyrics by John Newton
arranged by Clint Goss

*Finger diagrams in blue are alternate fingerings, used for ease of play. Standard fingerings may sound better, but are more challenging to play.

From www.Flutopedia.com

Clint & Vera’s Native Flute Handbook
Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Henry Carey (?) (melody)
Samuel Francis Smith (lyrics)
arrranged by Clint Goss

My country, 'tis of thee, sweet land of liberty,

Of thee I sing: Land where my fathers died! Land of the Pilgrims' pride! From every mountain side Let freedom ring!

Several nations have used this melody, either as a national anthem or as a composition of utmost importance. Parts of the melody have been traced back as far as Dr. John Bull (1563-1628), but the composer of the melody in its final form is still unknown. Many credit it to Henry Carey, an Englishman (1690-1743). The words were written in 1831 by Reverend Samuel Francis Smith, and American clergyman. The song was first sung publicly at a celebration of American independence in the Park Street Church, Boston, July 4, 1831. Numerous other verses have been written to the melody.

2. My native country, thee,
Land of the noble free,
Thy name I love;
I love thy rocks and rills
Thy woods and templed hills;
My heart with rapture thrills
Like that above.

3. Let music swell the breeze,
And ring from all the trees
Sweet freedom's song:
Let mortal tongues awake;
Let all that breathe partake;
Let rocks their silence break,
The sound prolong.

4. Our father's God, to Thee,
Author of liberty,
To Thee we sing:
Long may our land be bright
With freedom's holy light;
Protect us by Thy might,
Great God, our King!

From www.Flutopedia.com

Updated January 6, 2014
Several nations have used this melody, either as a national anthem or as a composition of utmost importance. Parts of the melody have been traced back as far as Dr. John Bull (1563–1628), but the composer of the melody in its final form is still unknown. Many credit it to Henry Carey, an Englishman (1690–1743). The words were written in 1831 by Reverend Samuel Francis Smith, and American clergyman. The song was first sung publicly at a celebration of American independence in the Park Street Church, Boston, July 4, 1831. Numerous other verses have been written to the melody.

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   And ring from all the trees
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   Let mortal tongues awake;
   Let all that breathe partake;
   Let rocks their silence break.
   The sound prolong.

4. Our father’s God, to Thee,
   Author of liberty,
   To Thee we sing:
   Long may our land be bright
   With freedom’s holy light;
   Protect us by Thy might,
   Great God, our King!

From www.Flutopedia.com

Updated January 6, 2014
Bridal Chorus

Here Comes the Bride from the opera Lohengrin (1850)

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Richard Wagner (1813–1883)
arranged by Clint Goss**

Here comes the bride, friends by her side,

Wedding bells ring loud, the door opens wide,

Here comes the bride, all dressed in white,

Sweetly, serenely, in soft glowing light.

** Lyrics are from various sources and are unrelated to the original opera.
* This note substitutes for a note that cannot easily be played on most Native American flutes.

From www.Flutopedia.com

Updated April 7, 2014

September 26, 2015
By the Waters of Minnetonka

Original Melody

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning
Andante Moderato

by Thurlow Lieurance**
arranged by Clint Goss

** Inspired by a Sioux Love Song recorded by Mr. Lieurance in October, 1911, on the Crow Reservation in Montana. The tune was sung by Sitting Eagle, a Sioux.
By the Waters of Minnetonka - Original Melody - Six-hole Pentatonic Minor
**By the Waters of Minnetonka**

Arrangement suited to the Native American Flute

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Andante Moderato

**by Thurlow Lieurance**

arranged by Clint Goss

**Inspired by a Sioux Love Song recorded by Mr. Lieurance in October, 1911, on the Crow Reservation in Montana. The tune was sung by Sitting Eagle, a Sioux.**

From www.Flutopedia.com

Clint & Vera’s Native Flute Handbook
COLORS OF THE WIND
Modified Melody for Native American flute

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Music: Alan Menken, lyrics Stephen Schwartz
arranged by Bob Child**
transcribed by ClintGoss

You think you own whatever land you land on; The
Earth is just a dead thing you can claim. But

I know every rock and tree and creature has a life, has a spirit it has a
name. You think the only people who are people are

** The melody has been modified to fit the range of the Native American flute.

From www.Flutopedia.com
Updated November 21, 2011

Clint & Vera’s Native Flute Handbook
people who look and think like you. But if you walk the footsteps of a stranger, You’ll learn things you never knew you never knew. Have you ever heard the wolf cry to the blue corn moon, or asked the grinning bob-cat why he grinned? Can you sing with all the voices of the mountain? Can you paint with all the colors of the wind? Can you paint with all the colors of the wind?

From www.Flutopedia.com
Earth My Body

Low Version

Earth my body Water my blood

High Version

Air my breath and Fire my spirit

Earth my body Water my blood

Air my breath and Fire my spirit

This chant was taught to me by Wayne McCleskey in the Summer of 2002.

From www.Flutopedia.com

Updated February 22, 2011

September 26, 2015
Nakai Tablature for Native American flute
Fingerings for Anasazi-7 tuned flutes
Parlando

Hon Shirabe

Traditional Japanese Honkyoku
arranged by Clint Goss

From www.Flutopedia.com
Updated October 15, 2011
The Huron Carol

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Jean de Brébeuf, circa 1642
arr. by Gary Cope, tr. Clint Goss

Time references are for synchronizing with The Huron Carol backing track - Track 21 on Jam Tracks in E Minor

From www.Flutopedia.com

Updated February 22, 2011

September 26, 2015
Maliseet Love Song

Standard Fingering

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Traditional Maliseet
collected by Natalie Curtis (Burlin) **
aranged by Clint Goss


From www.Flutopedia.com

Updated November 18, 2013
MALISEET LOVE SONG
Alternate (Simplified) Fingering
Traditional Maliseet

Collected by Natalie Curtis (Burlin) **
Arranged by Clint Goss

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Boskiu talabin elmi... nalawouik; El...
Look oft up the river, look... oft and oft; In...

Spring siguak... be... gi... lo; Chip...
at the breaking ice look oft; You...

Duk... knamihi... lagweyan; Ku...
may... com... my canoe; Look...
see me... down in...

We... we... Bos...
u... nu... Look...
up the river, look... new...
ODE TO JOY
Solo Flute

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Ludwig van Beethoven, 1824*
Ninth Symphony, Opus 125, Fourth Movement
arranged by Clint Goss

*This arrangement closely follows the original 1824 Beethoven choral score.

From www.Flutopedia.com

Updated January 6, 2014
ORIGIN OF THE FLAGEOLET
Modified for Minor Tuning

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Traditional Mandan and Hidatsa
collected by Frances Densmore **
arranged by Clint Goss


From www.Flutopedia.com

Updated October 27, 2011
Pokarekare Ana

Standard Fingering

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Traditional Waipu
arranged by Clint Goss

*Traditional Māori (Waipu culture, Northern New Zealand) love song, composed about 1914 of uncertain authorship. Custodiated by the family of Paraire Tomoana.

From www.Flutopedia.com

Updated January 6, 2014

Clint & Vera’s Native Flute Handbook 233
Pokarekare Ana
Simplified Fingering

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Traditional Waiapu
arranged by Clint Goss

Traditional Māori (Waiapu culture, Northern New Zealand) love song, composed about 1914 of uncertain authorship. Custodied by the family of Paraire Tomoana.

From www.Flutopedia.com

Updated January 6, 2014
**From 伊澤修二, Shūji Izawa, Collection of Japanese Koto Music, Department of Education, 1888.**

From www.Flutopedia.com

Updated October 9, 2011
SAKURA SAKURA
桜 桜

Key of A Hirajosji
Fingerings for Anasazi-7 tuned flutes

Japanese Traditional **
arranged by Clint Goss

** From 伊澤修二, Shūji Izawa, Collection of Japanese Koto Music, Department of Education, 1888.
From www.Flutopedia.com
Sakura Sakura
桜桜 / さくら さくら

Nakai Tablature for Native American flute
Fingerings for Anasazi tuned flutes

Japanese Traditional
arranged by Clint Goss

** From Shûji Izawa, Collection of Japanese Koto Music, Department of Education, 1888.

From www.Flutopedia.com

Updated October 9, 2011

Clint & Vera’s Native Flute Handbook
Nakai Tablature for Native American flute
Fingerings for Anasazi-7 tuned flutes

Sakura

Japanese Traditional **
arranged by Clint Goss

** From 伊澤修二, Shûji Izawa, Collection of Japanese Koto Music, Department of Education, 1888.
From www.Flutopedia.com

Updated October 11, 2011
Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Traditional Sea Shanty
arranged by Clint Goss

From www.Flutopedia.com

Updated March 18, 2011

Clint & Vera’s Native Flute Handbook
**SHENANDOAH**

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Traditional Sea Shanty **
arranged by Clint Goss


From www.Flutopedia.com

Updated March 18, 2011

September 26, 2015
**Simple Gifts**

Popular Version of the Melody

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Joseph Brackett, Jr., 1848
arranged by Clint Goss
Summertime
Standard Fingering

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

George Gershwin and Dubois Heyward (1935)
arranged by Clint Goss

From www.Flutopedia.com
Updated February 23, 2011

September 26, 2015
Summertime
Simplified Fingering

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

George Gershwin and Dubois Heyward (1935)
arranged by Clint Goss

From www.Flutopedia.com
Clint & Vera’s Native Flute Handbook

Updated February 23, 2011
Taps

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Day is done, gone the sun From the lakes, from the
sky. All is well, safely rest. God is nigh.

Fingerings for five-hole pentatonic minor tuning

Day is done, gone the sun From the lakes, from the
sky. All is well, safely rest. God is

** A modification of an earlier bugle call known presently as “Scott Tattoo” by Winfield Scott, 1835.

From www.Flutopedia.com

Updated December 2, 2011

September 26, 2015
This note replaces a note in the original melody that would normally sound two semitones below the lowest fundamental note of the flute. See Variation B for a different way to handle this issue.

This song is often identified as the "Cherokee Morning Song" and was recorded under this title by Rita Coolidge. However, the language of the song is from the Tihanama culture. Tihanama was last spoken as a primary language in the late 1800s. It was estimated that, as of 2007, "less than 40 people speak it at all, perhaps only 3 or 4 well".


A blog post by user Wamdukasapa on October 11, 2013 translated the phrase as "Our spirits are strong".
Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Traditional Tihanama arranged by Clint Goss

This phrase replaces a phrase in the original melody that would normally be out of the range of a Native American flute. See Variation A for a different way to handle this issue.

This song is often identified as the “Cherokee Morning Song” and was recorded under this title by Rita Coolidge. However, the language of the song is from the Tihanama culture. Tihanama was last spoken as a primary language in the late 1800s. It was estimated that, as of 2007, “less than 40 people speak it at all, perhaps only 3 or 4 well”.


A blog post by user Wamduskasapa on October 11, 2013 translated the phrase as “Our spirits are strong”.

From www.Flutopedia.com

Updated January 16, 2014

September 26, 2015
Yaquis Deer Dance
Simplified Fingering

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Traditional Yaquis / Zuni Dance
arranged by Clint Goss

From www.Flutopedia.com
Updated September 28, 2011

September 26, 2015
You Are My Sunshine
Standard Fingering

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

You are my sunshine, my only sunshine.

You make me happy, when skies are grey.

You’ll never know dear, how much I love you.

Please don’t take my sunshine away.

*Authorship is disputed and often attributed to Jimmie Davis and Charles Mitchell. Attribution to Oliver Hood is based on Theodore Pappas, *The ‘Thief’ of an American Classic*, Chronicles, November 1990.


Updated January 27, 2014
You Are My Sunshine

Simplified Fingering

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

You are my sunshine, my only sunshine.
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From www.Flutopedia.com

Updated January 27, 2014
Zuni Sunrise

Nakai Tablature for Native American flute
Fingerings for six-hole pentatonic minor tuning

Parlando

From www.Flutopedia.com

Updated February 23, 2011

Clint & Vera’s Native Flute Handbook
Flute On!