

Atta's C Tuning

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Basically, what Atta did was to retune Leonard's C (CGdgb' d'), by tightening up the 4th, 2nd and 1st strings, giving CGegc' e' , so that the C chord on the 1st and 2nd frets in Leonard's C (see Fig. 1. below) became totally open. No fretting fingers, just pick. So, you get that chord for free, with Atta's C.

Fig. 1. Low C Chord in **Leonard's C**.

The image shows a musical staff in 4/4 time with a treble clef. The first measure contains a C chord. Below the staff is a guitar tab for three strings, labeled 'Str III'. The strings are numbered 1, 2, and 3 from top to bottom. The notes are: String 1 (top): D (2nd fret), E (1st fret), G (open). String 2 (middle): G (open), E (1st fret), C (2nd fret). String 3 (bottom): C (2nd fret), G (open), E (1st fret). The notes are grouped by brackets to show the chord structure.

Like all tunings, you give up some things and you get some things. What you get, besides that open C chord near the nut, is parallel 6ths all over the place - on 3 sets of strings. And, the expected 3rds on the top 2 strings, and more 3rds on lower strings. Moreover, *all* 3rds and 6ths fingerings are the same, and just like the 3rds in Taro Patch. So, they are easy to remember. Also, with all those 6ths, you get some really interesting sounds.

The tuning is a little strange because the two open chords (each 3 adjacent strings make up a C chord) are inversions, not the "root" CEG. In addition, the lower chord of the tuning has a very large 6th interval. You can count that 6th interval, between the 5th and 4th strings, using the standard notation over the tab above. Note also that this chord exceeds an octave. However, all this "strangeness" is part of what makes the tuning interesting.

Fretboard Map and C Scale.

All the notes of Atta's C, and their positions on the fretboard, are in Figure 2. The notes of the scale, in the key of C, on the fretboard are shown in Fig. 3.

Fig. 2. Atta's C Fretboard Map

The screenshot shows the 'Alternate Tuning Chord & Scale Finder' application. The 'Common Tunings' dropdown is set to 'Open C'. The 'Key' list has 'C' selected. The 'Chord' list has 'Major' selected. The 'Scale' list has 'Ionian Mode (Major)' selected. The 'Included Notes' list shows all notes from C to B. The 'Display' section has 'Notes' selected. The 'Show' section has 'Chords' selected. The fretboard map shows the following notes for frets 0-14:

Fret	1	2	3	4	5	6
0	C	G	E	G	C	E
1	C#	G#	F	G#	C#	F
2	D	A	F#	A	D	F#
3	D#	A#	G	A#	D#	G
4	E	B	G#	B	E	G#
5	F	C	A	C	F	A
6	F#	C#	A#	C#	F#	A#
7	G	D	B	D	G	B
8	G#	D#	C	D#	G#	C
9	A	E	C#	E	A	C#
10	A#	F	D	F	A#	D
11	B	F#	D#	F#	B	D#
12	C	G	E	G	C	E
13	C#	G#	F	G#	C#	F
14	D	A	F#	A	D	F#

Fig. 3. Atta's C, Scale in key of C

The screenshot shows the same software interface as Fig. 2, but with the 'Scale' list set to 'Ionian Mode (Major)'. The 'Included Notes' list shows only the notes of the C major scale: C, C#, D, D#, E, F, F#, G, G#, A, A#, B. The fretboard map shows the following notes for frets 0-14:

Fret	1	2	3	4	5	6
0	C	G	E	G	C	E
1			F			F
2	D	A		A	D	
3			G			G
4	E	B		B	E	
5	F	C	A	C	F	A
6						
7	G	D	B	D	G	B
8			C			C
9	A	E		E	A	
10		F	D	F		D
11	B				B	
12	C	G	E	G	C	E
13			F			F
14	D	A		A	D	

Like all open tunings in major keys, you get major chords by barreing a fret. The chords, however, are inversions, just like the C chords in the tuning. So, in Fig. 2., the 2nd fret is a D chord, the 4th fret is an E chord, the 5th fret is an F chord (the IV chord in the key of C - equivalent to a C chord in Taro Patch), the 7th is a G chord (the V chord in the key of C - equivalent to a D chord in Taro Patch), and so forth. So, you can do many of the same kind of things that you can do in Taro Patch. And, since Leonard's C is a variation of Taro Patch, the same notions used in that tuning apply here, too.

Some drawbacks of the tuning can be seen in Fig. 3.; the D's are widely separated on the 2nd and 7th frets, so certain common "scale climbs" that normally start with the open G on the 5th string or the second D, such as the G, D, E, F sequence in Keola's "Hula Na Lā`au", can't be played easily (or at all). Also *displaced* is another common scale climb segment (used in "Hi`ilawe"): the B, C (which is usually played as a hammer back to the tonic on the 2nd string) is now at the 4th and 5th frets.

However, the very common E, F sequence, that is in many pieces in the key of C (such as "Hi`ilawe" or Ozzie's "Namaka's Mele"), can be gotten just by hammering the first fret on the 4th string from an open position. As I said, you get some things and you give some things.

Thirds and Sixths.

The Intervals (notes) between strings is given below (strings in the left column and notes and intervals in the right column):

1	E
	3
2	C
	4
3	G
	3
4	E
	6
5	G
	5
6	C

So, just as in Leonard's C and Taro Patch, the high 3rds are in their expected places on the top 2 strings. But, the "middle" 3rds are not on the 2nd and 3rd strings, but on the 3rd and 4th. You can also see that there is a 6th between strings 4 and 5. This is unusually large, but allows easy playing of parallel 6ths down there. The tabs showing the 3rds and 6ths are below in Figs. 4. through 8. Note that the frets for the fingerings are all the same, except for one position you all know because it occurs in Taro Patch - at the 10th/11th frets. (Don't be misled by the border that MS Word insists on putting around the tab - it is not a 7th string.) Easy to remember, right?

Fig. 4. Atta's C High 3rds

Fig. 5. Atta's C Mid 3rds

Fig. 6. Atta's C High 6ths

Fig. 7. Atta's C Mid 6ths

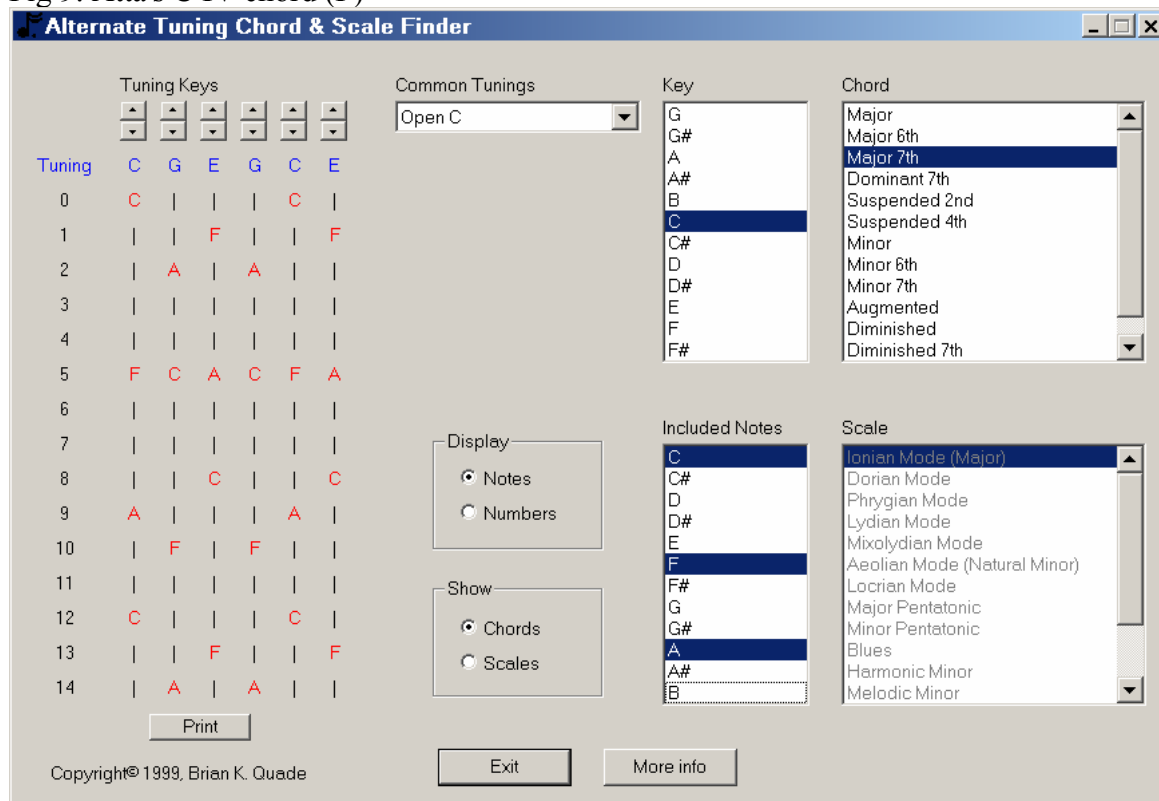
Fig. 8. Atta's C Low 6ths

Now, in Taro Patch and Leonard's C, the high 6ths are used most often. Occasionally, the mid 6ths on the 2nd and 4th strings will appear in an arrangement or composition. But,

only Keola and Mark Hanson seem to have ever used the low 6ths on the 5th and 4th strings. These are D and G and, even though both composed in Keola's C, those 2 strings are the same as in Taro Patch and Leonard's C. So, if anyone wanted to, they could do the same thing in those tunings and the fingering would be identical to the 6ths on the 1st and 3rd strings. Examples of Keola's usage are in "Hula Na Lā`au" and, to our ears, they are the most "Keola-ish" sounding measures in the whole piece. (All of the instances are part of arpeggios that start with a 5th interval and continue with a 6th - maybe that is a partial hallmark of the "Keola sound".) They are in measures 41, 42, 45, and 46. Hanson does the identical sequence in measure 29, 34, 42,43, 50, 58 and 59 of his version of "Aloha `oe", which is also in Keola's C. Great minds think alike?

The IV and V7 Chords in Atta's C - Mirror Images of Taro Patch.

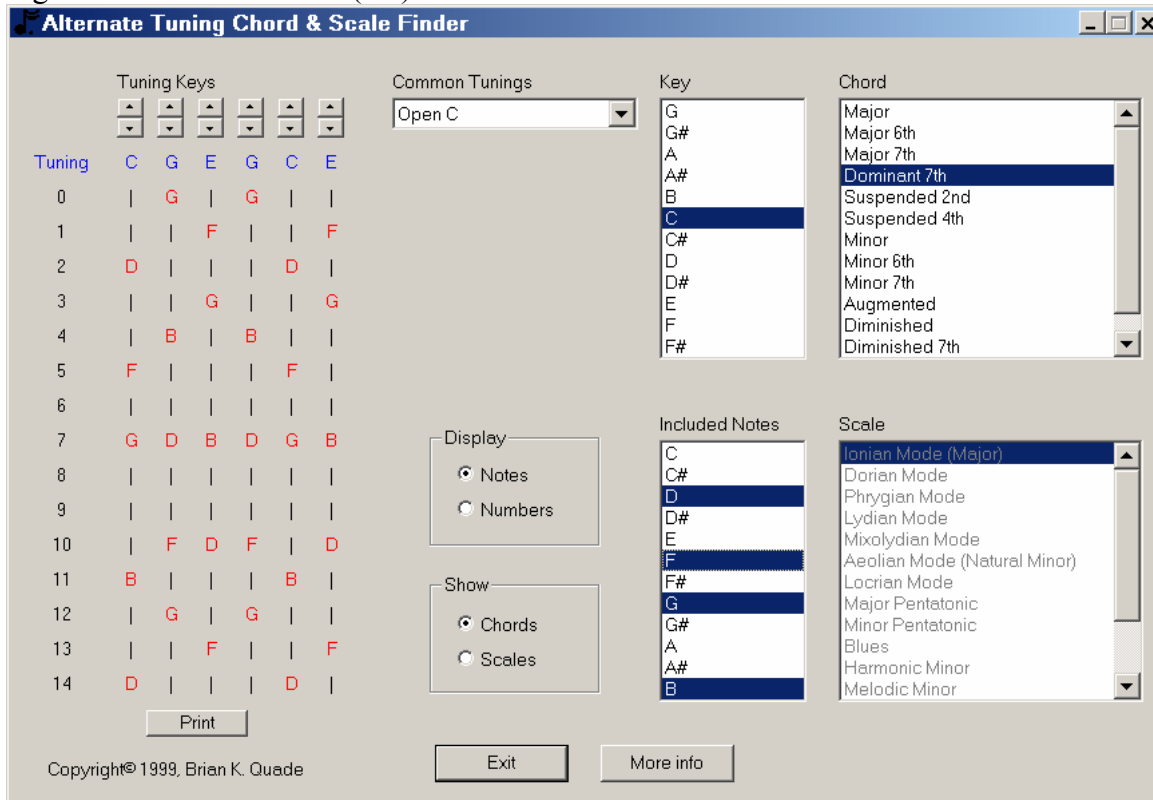
Fig 9. Atta's C IV chord (F)



The IV chord (F), equivalent to the C chord in Taro Patch, is dead simple to finger and similar to the shapes in Taro Patch. Of course, there is the barre at the 5th fret, but note the “./” (thanks to Ed Bigelow for that) shape at the 8th, 9th and 10th frets. It is the mirror image of the C in the same place in Taro Patch. The F chord near the nut is the same shape as one variant of the 7th chords in Taro Patch (C7, A7, etc.). Actually, that is a theme throughout the tuning - there are only 3 major chord shapes on the top 4 strings, as in Taro Patch: symmetric barre chords, ./, and this one .

Atta's C V7 chord (G7), the equivalent of the D7 chord in Taro Patch, is given in Fig. 10 below. This is somewhat more problematic in use, especially for D7 - G Vamp analogues, because of the positions of the D and B notes. The latter limits one to 2 places to slide into C from B. But, the "Hi'ilawe" vamp is quite simple, as are other common C tuning vamps. Of course, descending parallel 6th vamps are a piece of cake. You can easily start one on the 7th fret and end open.

Fig. 10. Atta's C V7 chord (G7)



An example of Atta's C.

In order to get an idea of the advantages and disadvantages (and how one might get around the latter) of Atta's C, I used 4 measures of Ozzie's "Namaka's Mele" as an example. He composed it in Leonard's C and those measures are given in Fig 11. Note the heavy use of the low C chord in the 1st, 2nd and 4th measures. Then see how all those become open, sonorous strings in Fig. 12., which is just the transposition of Fig. 11. into Atta's C. Those are the gifts of Atta's C. A feature which I consider ergonomically neutral, is the use of the 4th to 5th fret hammer on the 3rd string instead of the open to 1st fret hammer in the original. That is the last part of the vamp that gets you back to C.

Then, notice, in measure 3, how difficult it is to jump to the D on the 7th fret, if one were to transpose literally, note for note. That's the major drawback of Atta's C. In Fig. 13., I

present a suggested rearrangement of the 3rd measure above, also in Atta's C. It simply uses a higher D that is easier to get to and, to my ears, sounds quite good and still retains the spirit of the song. I am sure that others more talented than I could come up with more interesting alternatives.

Fig. 11.

Namaka's Mele, in Leonard's C. Copyright 1995 Ozzie Kotani. Used with permission.

Fig. 11 shows the musical score for "Namaka's Mele" in Leonard's C. The score is presented in a system with a treble clef staff and a guitar accompaniment for three strings (T, A, B). The melody in the treble staff features a triplet in the third measure. The guitar accompaniment includes fret numbers (0, 1, 2, 3) and strumming patterns (H, P, H, H).

Fig. 12. Namaka's Mele, in Atta's C

Fig. 12 shows the musical score for "Namaka's Mele" in Atta's C. The score is presented in a system with a treble clef staff and a guitar accompaniment for two strings (T, A). The melody in the treble staff features a triplet in the third measure. The guitar accompaniment includes fret numbers (0, 4, 5, 7) and strumming patterns (H, P, H).

Fig. 13. Suggested rearrangement of the 3rd measure above, in Atta's C

Fig. 13 shows a suggested rearrangement of the 3rd measure of "Namaka's Mele" in Atta's C. The score is presented in a system with a treble clef staff and a guitar accompaniment for two strings (T, A). The melody in the treble staff features a triplet in the third measure. The guitar accompaniment includes fret numbers (0, 1, 2, 4, 5) and strumming patterns (H, P, H).

Playing Bass Notes in Atta's C

It is not really possible, in any C tuning that I know of, to get the droning quality of alternating bass that exists in Taro Patch. Recall that the usual patterns in Taro Patch are [G, d, G, d] and [D, d, D, d] on the bottom 3 open strings. It may be that we get too used to hearing that pattern and think that it should be the rule in other tunings. It isn't, because the possibility rarely exists. It doesn't in Leonard's C, or Keola's C and lots of others.

So, what *is* possible?

One route to take is that used by Ozzie, as in "Namaka's Mele", above. In it, he uses a [C, E, G, E] sequence and a [G, E, G, E] sequence. Both are repetitive and fairly familiar to the ear. In the 3rd measure, the vamp, he uses a progression that is familiar from other compositions in C (such as "Hi'ilawe"), a scale climb that leads off with a G, because it is part of the V chord. There really is not an alternating bass there.

However, it is similar to a technique that Keola often uses, and that was used by many old-time ki ho`alu players: a pedal note. A pedal note is a sustained low note, usually a whole note in 4/4 time, that starts the measure. It continues its sound under the melody of the measure and provides the underpinning and reference point for that melody. It is usually the low, open C or G in a C tuning. Since it is sustained, it provides the droning quality that the 3rd string d note provides in Taro Patch. So, this is the 2nd alternative.

A 3rd way is to use the g on the 3rd string to be the analogue of the d in Taro Patch. So, you would have [G, g, G, g] and [C, g, C, g]. Leonard used that technique in the song, "Nahenahe" (but that is the only song in which I am *sure* he does this - usually he used one of the previous 2 approaches) and Ozzie told me he does that in a C6 tuning. Leonard's tab indicates that he mostly played the 3rd string with his thumb, but sometimes used his index finger. Ozzie told me he uses his thumb. However, you can use whatever finger is comfortable. I use my index finger all the time (I routinely play with thumb and 3 fingers as Ozzie and Keola do). I have seen Mainland players of other genres use their index fingers for pedal notes on the 3rd string, but never their thumbs.

Not the end

There are just a few other small aspects of Atta's C to note, one of which it shares with Keola's C, a wahine tuning. It extends the range of the guitar by two notes, which is often helpful and certainly sounds swell. The cello-like C is there at one end, and the high 3rds and 6ths are lower on the fretboard and, thus, a bit more accessible, especially for 12-fret-to-the-body guitars. Since Hawaiian music depends heavily on high 3rds and 6ths, this is a handy assist.

Also, the extra tension of the 3 raised strings seems to bring some stiffly braced guitars to life.

This has just been a preliminary exploration of a tuning Sarah and I happen to like and would like to hear more of. As I said, like all tunings, you give up some things and you get some things with Atta's C, but it is well worth trying out. I am certain I overlooked many aspects of it and I don't profess to be an expert, either in music or the history and development of ki ho`alu. But, I hope you find it interesting and useful and I hope you will add to this or correct any mistakes I have made. Mostly, I hope you will play in this tuning.

E Ola Ki Ho`alu!