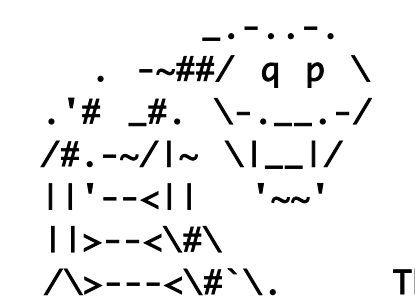

www.SantaresMusicPeople.Com, and the directors of the Fort Lauderdale Sunshine Chordsmen present this online music theory series (Barbershop Edition - Lesson #01)

<*)))>< Andrew E. Reid, General Editor

Posted at: http://www.barbershopchorus.com

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Greetings! Welcome to this first lesson! Okay guys, so I guess we're off to musictheoryland...

I first want to thank Dan and Alex Rubin for allowing me the opportunity to hand out these informal music theory newsletters to you as a free service to the Chordsmen. You guys are great--and if anybody has anything to contribute to future editions of this (monthly?) newsletter, please feel free to offer your material to me, either during the rehearsal at the church or by email. I just think that this can be an added tool in our performance arsenal and allow us to sing with more confidence. If this newsletter project makes it past 50 issues or so, Stan Familant said he is willing to have the "Sunshiners" foot the bill to put this into a "book format" with the intention of selling it on the open market. Way to go, Stan!

Anyway, I just want to start off by saying that music notation (the actual recording of the composer's intentions on paper) evolved over many centuries and is not a perfect artform by any means. Many modern-day composers are quite frustrated by the problems that arise due to the limitations that traditional music scoring practices inherently have. I personally own several old computer music magazines that look more like source code than music. The musical staff did not always have five lines (and four spaces,) nor were notes always nice and round with straight stems that we find today. And does anybody who is not from the British Isles really know (or care,) what a hemidemisemiquaver is? And what the heck is a neume anyway!

At least we can all agree on what an "octave" is, I hope; namely, when you cause a string (or air column,) to vibrate, and then cause another string (or air column) of the same material and quality but only half as long to sound at the same time, you create an octave, the simplist of harmonies. But at that point things get messy and complicated. We in the "West" (i.e. under European/ Caucasion influence; not like "western" meaning country music, cowboys or that sort of thing,) for the most part divide that octave into twelve equal spaced intervals nowadays; this is not the case in other cultures or in other parts of the world.

The Raga, for example, from Indian classical music, (as in from "India, near Pakistan") use microtones in their scale formations that cannot be translated into our "western" musical scales. And there are many different "tunings" that can be done to stringed and other pitched instruments, but the equal tempered scale has gained the most widespread acceptance in our culture. I will explain more about this subject in future newsletters, but for now let's just say that there are twelve notes from octave to octave. But there is a very famous "blue" note that came into our music from African or Asian influence, and is so important that I will give space to it here. This "blue note" is namely a pitch about halfway between dominant and tonic. (In a C major chord, with the triad at C-E-G, this blue note would fall somewhere between A natural and B flat.) Some oriental pentatonic scales also include this and other "blue" notes.

The wonderful thing about a cappella singing is that we are not bound to sing the notes that are sounded on a piano or organ like those choirs that use these instrumental accompaniments. There are 1200 "cents" between octaves, and we adjust our chords and can, and do, use all of the "cents," just as a slide trombone could do, sometimes to the utter and sheer terror of our chorus directors. It's the understanding of these tunings and chordal implications of these combinations that can make harmonic singing so very rich and colorful. You wouldn't want to drive through a new town without a map, and you certainly wouldn't want to sing "pitches" without knowing how they relate to the other voices in the mix. And at some point we'll have to talk about the overtones and undertones, which, when allowed to blossom, create additional combinations that only happen when everything is clicking, (and "ringing" properly.) It's like the saying that the synergetic whole is greater than the sum of its parts...

Anyway, what a lot of novices have trouble with, when trying to read music, is the fact that even though notes may not look different from one another in relation to one another and from song to song in the written form: they are. (More on this later.) What I want to concentrate on in this first newsletter are the names of these intervals, to at least get us started on the right foot. So, there are five lines and four spaces, twelve intervals in an octave, seven notes in a standard classical scale and thirty-five ways to name these notes. No wonder why it is so confusing!! We have come to standardize the note names as "A" through "G" -- (don't worry at the moment that the Germans also use "H,") and these seven letters have five different variations, (that is, namely, natural, sharp, flat, double-sharp, and double-flat.) So, voilà! you have thirty-five different ways to name the twelve intervals! (Oh no!)

So, here are the twelve intervals (listed by their vibrational frequencies, or Hz) with the note names associated with each interval, starting with the most common name first:

220.000 Hz = A natural, G double-sharp, B double-flat.
233.082 Hz = B flat, A sharp, C double-flat.
246.942 Hz = B natural, C flat, A double-sharp.
261.626 Hz = MIDDLE C, B sharp, D double-flat.
277.183 Hz = D flat, C sharp, B double-sharp.
293.665 Hz = D natural, C double-sharp, E double-flat.
311.127 Hz = E flat, D sharp, F double-flat.
329.628 Hz = E natural, F flat, D double-sharp.
349.228 Hz = F natural, E sharp, G double-flat.
369.994 Hz = F sharp, G flat, E double-sharp.
391.995 Hz = G natural, F double-sharp, A double-flat
415.305 Hz = A flat, G sharp. (This one only has two names.)
440.000 Hz = see (220,000 Hz) above... So, 35 names; 12 notes!

Next Lesson: Half-steps and whole steps; how am I ever going to be able to tell the difference between them when reading the music?!

- If you ever have further interest in anything that I mention here, and have internet access, Wikipedia <www.Wikipedia.com> is a wonderful quick and easy to access online encyclopedia that is chockful of useful (and also seemingly useless) information on all sorts of subjects.