Why Don't Jazzpersons Use These Chords?

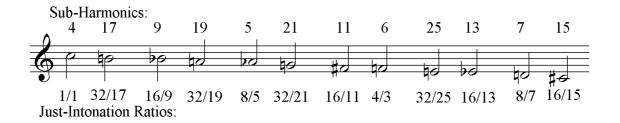
Warren Burt

A chart of the 12 most common jazz 7th chords was given in a music theory book. To this list, a 13th chord (which was not a 13th chord) was added, and the chords were turned into 9th chords. These chords are used as "fingering templates" and applied to a scale of odd numbered harmonics 1-25, without the 23rd harmonic. This produces the following scale:

Harmonics: 17 19 5 21 11 6 25 13 7 15 17/16 9/8 1/1 19/16 5/4 21/16 11/8 3/225/16 13/8 7/4 15/8 **Just-Intonation Ratios:**

The set of 13 chords is played 12 times, each at a different transposition. Because of the unequal nature of just-intonation scales, when each chord, or "fingering template" is transposed to another degree of the scale, a different sounding chord results. Some of these chords are quite consonant, while some are quite dissonant. The difference between some of the chord types at different transpositions is quite subtle, other differences are quite marked, showing that in just-intonation there is the potential for much greater dissonance AND much greater consonance than 12-tone equal temperament provides.

The chords on the harmonics derived scale are worked through, then the whole thing is turned upside down to be played on a scale of sub-harmonics, which is the following scale:



In live performance, a keyboard synthesizer or sampler should be used. The instrument MUST be capable of being tuned into the above scales, and should use an electric piano type sound, with the addition of reverb. In the notation, double sharps and flats are frequently used. These do NOT apply to the intonation of the piece – the harmonic and subharmonic numbers over the notes do that. The double sharps / flats notation is merely used to preserve the original (visual notational) identity of the jazz chords while transposed.

The overall piece is about 45 minutes long. The pause between the first and second parts should only be long enough for the change of tuning to take place. Hopefully, this should only involve loading a different tuning file into the synthesizer/sampler software being used.

Use a scale of harmonics 4-25, with no 23rd harmonic. Starting on C. Numbers above notes indicate harmonic number Electric Piano timbre, with reverb.



















Use a scale of subharmonics 4-25, with no 23rd subharmonic. Starting on C. Numbers above notes indicate subharmonic numbers. Electric Piano timbre, with reverb.















