

HEX SCALES FROM TRIAD PAIRS

Extract from Pentatonic & Hexatonic Scales in Jazz, © Jason Lyon 2007

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WE ARE going to look at ways of constructing scales from pairs of triads. In order for this approach to yield a hexatonic (six-note scale), the triads must be mutually exclusive – they must contain no common tones.

Of course, there is no reason why you shouldn't experiment with the use of triad pairs that do have tones in common, or combining two or more seventh chords, or triads, with each other, or simply using other sets of intervals in any permutations that sound good to you. These approaches can lead to very interesting sounds, and can be particularly useful in composition, providing a distinctive sound world. For now, though, we'll come down to earth with a thump and focus on exclusive triads to generate six-note scales.

The triad is a very strong harmonic building block, the foundation of the Western European musical tonal system in fact, and the basic element with which most musicians have the easiest familiarity. Consequently, combining different triads is an extremely convenient shorthand method for internalising a wealth of different gapped scale sounds. Furthermore, these gapped scales derive a good deal of their interest from the fact that they combine two simple musical gestures (simple triads) to create a structured more complex whole. They are also interesting for the ambiguity they invoke in comparison to seven-note scales.

Obviously, even restricting ourselves to exclusive triad pairs, the number of permutations is enormous. I'll choose here to stick to major and minor triad qualities and highlight those triad pairs that have good clutches of chord tones to apply to a variety of different chord qualities.

Different people play, and think, in different ways. If you wish to explore exhaustively the possibilities of the other types of triads in combination, go right ahead. But there's a degree of subjective pragmatism here: I personally feel that it's useful to know that major triads on C and D give a C Lydian sound, and not so useful to know that a major triad on C and a diminished triad on D, for instance, give an F melodic minor sound. Of course, it's all up to you – but what I'm asking you to do is begin with the examples I give first, then take things further if you feel fired up to do so.

The headings I will assign here are given for purely descriptive purposes – they aren't commonly used terms.

1. MAJOR MINOR (TRADITIONAL) HEXATONIC

Combine a major and minor triad a tone apart



This hexatonic scale can be used over $F\Delta$ and $Dm7$. It is the “traditional” hexatonic we met earlier. The structure exists in C major and F major.

Actually, and we’ll find this with all of these structures, this scale will work, with a greater or lesser degree of ambiguity, over lots of chords. In this case, we could also use the scale over $Gm7$ (without minor 3rd), $Bb\Delta+4$ (without root), $C\Delta$, $C7$ or $Csus7$ (without 7th). In all cases a pretty crucial chord tone is missing, but the resulting ambiguity can make the line interesting. As we go through the hexatonic scales I’ll point out some of the ambiguous possibilities, but I suggest you focus on the strong ones first, then revisit the more ambiguous choices later if you want to.

2. DOUBLE MAJOR HEXATONIC

Combine two major triads a tone apart



Probably the most important of all the hexatonic structures we’ll look at. A very versatile structure, primarily used for solid access to $D7sus$ and C Lydian (major or dominant, since the 7th is absent). McCoy Tyner has made extensive use of this hexatonic (check out the album *The Real McCoy*, and Eddie Palmieri also). It can also be used over $Am7$, as well as, somewhat more ambiguously, over $Bb\Delta+5$, $E\emptyset$ and $F\#7alt$. The structure exists in both G major and G melodic minor, uniquely among the triad pairs. It exploits the points in major and minor harmony where major triad pairs coincide.

3. DOUBLE MINOR HEXATONIC

Combine two minor triads a tone apart



This hexatonic scale, one of the least ambiguous of the species, can be used over Cm (tonic minor or Dorian) and Eb Δ +4 (with no 5th, so the scale will also work over Lydian Augmented). It also works well over F7 (with no 4th, so the scale will also work over F7+11), A \emptyset and B7alt. The structure exists in Bb major and C melodic minor.

4. MINOR MAJOR HEXATONIC

Combine a minor and a major triad a semitone apart



Use over Db Δ +4 and over Bbm7 (but note the root is absent). Eb7sus and C7susb9 are also in there (possibly G7susb9 as well). The structure is from Ab major.

5. DIMINISHED HEXATONIC FAMILY

Combine major/minor triads, in any permutation, a tritone apart



Major with major, major with minor, minor with major or minor with minor. All these combinations spell out a diminished scale for use over C7b9, Eb7b9, F#7b9 and A7b9.

There is an alternative slash-chord spelling of 7b9 and this batch of hexatonics is ideal for the purpose. Probably the best-known example of this slash-chord is in bars 13-14 of Horace Silver's *Nica's Dream*. Some fakebooks have C \emptyset -F7b9-Bbm here, but Silver actually wrote and played B/F - Bbm. B/F – a minimalist alternative spelling of F7b9+11. You can substitute this slash chord in anywhere you see a minor II-V and play these hexatonics over it.

6. HARMONIC HEXATONICS

The following scales have a limited degree of use over 7b9 chords – not a full diminished chord, but a straight Mixolydian dominant with a flatted 9th. In

both cases the distinctive section of the harmonic scale – b6th, major 7th, root – is exploited to outline the 3rd, b9th and root of a 7b9 chord, often used descending. This figure is very reminiscent of Parker-era bebop.

Minor and major a tone apart



From G harmonic minor (or harmonic major, actually). Use over D7b9.

Two minor triads a semitone apart



From Ab harmonic major. Use over Ebsub9 (inclusion of the perfect fourth turns the chord into a sus).

7. EXOTIC SOUNDS

I'VE CALLED these “exotics” because they derive from scales other than standard traditional tonal materials (their origins are non-Western European or synthetic scales). They are interesting, highly colourful sounds, but I think you have to exercise good taste with them – they can all too easily become sort of “Easterny” sound effects.

SPANISH PHRYGIAN HEXATONIC

Combining 2 major triads a semitone apart

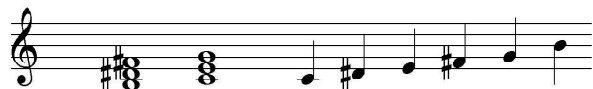


The structure is from F harmonic minor. A triad side-slipping by a semitone over the lower root (C) is a signature sound of flamenco guitar. The Spanish

Phrygian differs from modal Phrygian in that it contains a major, rather than a minor, third. Use sparingly, please, mis amigos . . .

LYDIAN #9 HEXATONIC (DIMINISHED MAJOR)

The same structure analysed over the upper root, Db, gives a chord quality which some refer to as as Lydian #9 and others as diminished major. Here it is in C:



The tones outlined are root, #9, 3rd, #4th, 5th and major 7th. The scale strongly implies C diminished, but unusually specifies a major, rather than dominant 7th. Or you could just as easily say it strongly implies C Lydian but with a raised 9th. In fact, this scale sound seems to me pretty well perfectly poised halfway between a major and a diminished dominant chord.

Use of this hexatonic structure allows you to play a diminished sound on a I chord – a sound much used by the likes of Chick Corea and Herbie Hancock. This hexatonic structure allows you to focus clearly on the crucial chord tones of this “halfway house” sound, while the structure of the pair of triads adds an extra degree of coherence. An often played reharmonisation of a ii-V-I in this style is to detour at the diminished on your way to the I:

|| Dm7 | G7 | CdimΔ (or CLyd#9) | CΔ ||

Miles also often used this chord quality as a substitute for a tonic chord, in the *Workin' Quintet* as a final I, and later on the album *In A Silent Way* more extensively.

8. AUGMENTED HEXATONIC

Combine a minor triad and a major triad a major 3rd apart (or, probably easier to remember, 2 augmented triads a minor 3rd apart).



This is a totally symmetrical scale comprised of minor 3rds a half step apart. You can also see it as an equal split of the octave into major 3rds with approach tones. It's riddled with tension and requires a degree of finesse to make it work over any chord quality – but it can be done. The scale's primary

use is probably over major 7th chords (with optional #5th) – C Δ , E Δ and Ab Δ . Treating the semitone steps as chromatic approach tones can make this scale work over the minor II-Vs to these I chords. So to summarise, this scale fits:

D \emptyset	G7b9	C Δ (+5)
F# \emptyset	B7b9	E Δ (+5)
Bb \emptyset	Eb7b9	Ab Δ (+5)

This pair structure can also be figured from the third and flat sixth. That is, C minor and major triads together contain the same tones as E minor with Ab major and Ab minor with C major.

C. THE WHOLE-TONE FAMILY OF SIX

OKAY, SO we've run through an awful lot of possibilities, and how you choose to assimilate and use these structures is entirely up to you. You have my menu in front of you. In my opinion, the most powerful hexatonic combinations involve major triads, and it just so happens that there's a tidy way of organising sets of major triads into a scheme that's useful and easy to remember. I call it the family of six.

We're in the key of C. Let's build major triads a tone apart, starting from that root:

C D E F# Ab Bb



The roots ascend a whole-tone scale. Here's how you use them:

The first two triads in combination give you C Lydian (dominant 7th optional, sounds good either way);

The second and third together give you C Δ +5 (sans root, but it doesn't really matter);

The fourth and fifth together give you C7alt;

The sixth and first again (the sequence repeats every octave) give you C7sus.

Running through major triad pairs in a whole-tone scheme like this, to give different qualities on the same root, is an easy way to assimilate a useful batch of hexatonics. Hopefully it will also prepare you to accurately see, internalise and manipulate triad pairs. You can then expand into other triad and chord qualities, as you wish and need.