

## B. PENTATONICS BY CHORD TYPE

### 1. WHAT TO PLAY ON A MINOR 7TH CHORD

AS OF now, we'll be thinking primarily in terms of minor pentatonics (but keeping the relative major in the back of our mind).

There are three of the classic pentatonic structures that fit over a Dm7:

DmPT

EmPT

AmPT



The easy way to remember these scales as a set is to notice that the roots form a II-V-I to the root of the Dm7 chord you're playing over. But there's more. Rearranging the inversions, we can see that the move from each pentatonic to the next involves just one note shifting at a time:

DmPT

AmPT

EmPT



Let's now add the minor 6<sup>th</sup> pentatonic in D:

DmPT

AmPT

EmPT

Dm6PT



Notice how the minor 6<sup>th</sup> pentatonic is one note different from both the E minor pentatonic that it follows and the D minor pentatonic at the start of the line. As such it can be used as a bridge between the two, for the purposes of repeating the sequence.

Note also how as we move from D minor (containing root, third and seventh, D, F and C) to A minor (containing D and C) to E minor pentatonic (containing D) we gradually lose more of the defining chord tones of Dm7. This gives an increasing sense of moving away from the chord, without actually leaving the tonality. Playing the minor 6<sup>th</sup> pentatonic reintroduces the third, the F, moving back into the chord sound.

The following is a combination of subjective description and harmonic observation as to the different flavours the scales can evoke:

**D MINOR PENTATONIC:** Fully “in”, at rest. Use of the fourth (G) thickens the pure chord sound.


**A MINOR PENTATONIC:** A bit more restless, without the presence of the third (F), the fourth (G) now serves to loosen, rather than thicken, the chord. Introduction of the ninth (E) takes the sound a little further out.

**E MINOR PENTATONIC:** Much more abstract sounding, since “colour tones” now predominate over essential chord tones. In a way, we are playing the II chord of the II chord. We’re also moving in the direction of playing the V that this II is paired with.

**D MINOR 6<sup>TH</sup> PENTATONIC:** Reappearance of F, the third, pulls the chord back towards home. Yet this is still quite an “active”, charged sound because of a) emphasis on the 6<sup>th</sup> (an ambiguous tone in Dorian); b) the presence of the tritone; c) the unusual number of major third intervals in use in a minor tonality; d) now we are really are playing the V this II is paired with.

It is well worth practising the preceding example in all inversions. This is primarily an exercise designed to assimilate the scales as a group. Remember to focus on the note that changes between each scale, and listen for the slightly different effects the scales produce over the root (a modal Dm groove playing in the background will help – the A section of *So What*, for instance):

|      |      |      |       |
|------|------|------|-------|
| DmPT | AmPT | EmPT | Dm6PT |
|------|------|------|-------|





Running through this exercise will also help you to familiarise yourself with all the inversions of these pentatonic scales.

We can also play B $\emptyset$ PT over Dm7 (remember this is the same thing as a “minorised” version of D major pentatonic):



Which is very similar to Dm6PT – compare the tones in the key of Dm:

#### **B $\emptyset$ PT**

|      |                 |                 |                 |                 |
|------|-----------------|-----------------|-----------------|-----------------|
| D    | E               | F               | A               | B               |
| Root | 2 <sup>nd</sup> | 3 <sup>rd</sup> | 5 <sup>th</sup> | 6 <sup>th</sup> |

#### **Dm6PT**

|      |                 |                 |                 |                 |
|------|-----------------|-----------------|-----------------|-----------------|
| D    | F               | G               | A               | B               |
| Root | 3 <sup>rd</sup> | 4 <sup>th</sup> | 5 <sup>th</sup> | 6 <sup>th</sup> |

This is an exception to our neat scheme of II-V-I movement – or is it? Well actually, it’s an extension of the same logic. To add this scale to the scheme, just think of II-V-I-VI movement (a turnaround) and remember that instead of a minor PT, the scale on the VI root is a half-diminished PT:

|           |          |            |                  |
|-----------|----------|------------|------------------|
| <b>II</b> | <b>V</b> | <b>I</b>   | <b>VI</b>        |
| EmPT      | AmPT     | DmPT/Dm6PT | B $\emptyset$ PT |

There are plenty of common tones between this half-diminished pentatonic and the others, as well as a way of working it in with the others by moving just one tone. Have a scratch around and find these common points.

## **PRACTICE SESSION 1**

NOW WE'RE going to practise improvising with the scales over a good long unchanging background of D minor. The aim is to play a large enough chunk of each particular pentatonic to strongly imply it before moving on to use another. Because of the large degree of commonality between the scales, it will often be possible to analyse three or four-note groups as belonging to more than one pentatonic, but this doesn't matter – in fact, it's a good thing. The important point is to satisfy yourself that you have clearly played a fragment from one pentatonic and then consciously move, during the same phrase, into another. Begin by playing long continuous eighth-note lines to gain familiarity with the movement between the scales and then work in rhythmic variation – longer note durations and rests – to sharpen up your phrasing. Also try working in some of the structures we looked at earlier, but not just in D minor, in all five pentatonics.

### **SOME SUGGESTIONS THAT CAN SOUND GOOD:**

- a) pickup composed of a number of notes from one scale leading into a long run from another;
- b) figure from one scale ending on one different note from another;
- c) up one, down another or vice versa;
- d) the same figure in E minor pentatonic and then D minor pentatonic for automatic parallel structure (and the reverse);
- e) use an encircling figure to introduce a line;
- f) use an encircling figure to end a line.

## **PRACTICE SESSION 2**

NOW LEARN the set a half-step up – E $\flat$ , F and B $\flat$  minor pentatonics, plus C half-diminished pentatonic. Not such a great chore, really. Run through the set of chords in all inversions and repeat the first practice session in the new context of E $\flat$  minor.

## **PRACTICE SESSION 3**

REPEAT THE first practice session in D minor, but this time “plane” between the two keys. D minor is your home tonality, so play lines beginning in that, then play a semitone up and return to base.

“Planing” in the pentatonic style is equivalent to using chromatic tones in the more traditional scalar style. The basic approach is to maintain the “open” pentatonic sound, but use semitonal motion *for the whole scale sound* to open up the chromatic possibilities. Incidentally, planing doesn’t necessarily happen consciously when you’re playing live. In order to get this sound down, you have to start by doing it deliberately when you’re practising and, as often as not, doing it wrong. Get a feel for what works in practice sessions and then it will start to appear naturally in your live playing.

You can also plane by dipping down a semitone. In fact, there are many commonly used strategies for modal planing. Here are a few examples to get you started:

- a) Dm to Em and back (this is the basis of the vamp on *So What*);
- b) Dm to E<sup>b</sup>m to Em, then back to Dm via parallel phrase on Em minor;
- c) Dm to E<sup>b</sup>m to Fm and back (up and down the roots in a diminished scale fragment);
- d) Dm to A<sup>b</sup>m (a tritone away) then up to Am and back via Am or Em;
- e) Dm to Fm to A<sup>b</sup>m to Bm to Dm (up a diminished chord).

There will be more on possibilities for outside playing later, in particular when we look at the range of possible substitutions for a II-V-I.

## **DON'T USE THE CYCLE OF FIFTHS TO PRACTISE!**

YOU ARE obviously going to need to gain facility in all twelve keys. At this point, I’m going to be controversial and advise you *not* to practise these pentatonic groupings through the cycle of fifths. The reason is that just one pentatonic changes as you go round the cycle – for example, in D minor, you play D, E and A pentatonics; in G minor, you play G, A and D pentatonics. Now while there is something to be said for only having to learn one new scale at a time, it is very easy to get confused. If you’ve been playing D minor for half an hour and then switch to A minor, there will be a tendency for material from D minor to leak into the new key you are practising. You may wish to work with these ambiguities deliberately at a later stage, but for now what we’re after is precision.

Try practising keys at random, while keeping a list to make sure you don’t miss any out. Well, I say at random, but how about practising them in the order of the ones that most commonly occur in the repertoire that you play?

Sure, you're going to need F#m7 occasionally, but I'll bet you'll need Dm7 or Fm7 more often. There's nothing wrong with targeting your practice at the areas where you're most going to need it. Just don't neglect the nether regions later. Actually, by gaining confidence and facility in the keys you will naturally use more often, you are also training your ears, and fingers, for when the time comes to nail the other ones. And by practising planing, you're also getting to know the "neighbours".\*

Incidentally, focusing on these sets of scales is a very efficient and relatively painless way to get inside those "remote" keys (B, Gb, E, and a few others – you know the ones I mean) that a lot of people never seem to get round to nailing. Just see how much understanding it gives your ears in the keys you thought you already knew, then apply the methodology to unfamiliar keys.

If you do want to structure your practising, either play up by semitones or try one of the following sequences, which avoid sequential repetition of scale materials:

**D F# Bb Eb G B E Ab C F A Db**

**D Ab G Db C Gb F B Bb E Eb A**

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### DORIAN MINOR (2<sup>nd</sup> mode of major)

(Play the given pentatonic on the indicated degree of the home chord)

II – minor 7<sup>th</sup> PT

V – minor 7<sup>th</sup> PT

I – minor 6<sup>th</sup> PT and minor 7<sup>th</sup> PT

VI – half-diminished PT

The scales form a II-V-I-VI pattern on the root of the chord.

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\* I was playing at a jam once when someone called Coltrane's *Equinox* in the original key of C# minor (most people cop out and play it in C). The fact that I'd spent some time mucking about with planing on C minor blues saved the day...

## 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, D $\flat$ , 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, 3<sup>rd</sup>, #4<sup>th</sup>, 5<sup>th</sup> and major 7<sup>th</sup>. The scale strongly implies C diminished, but unusually specifies a major, rather than dominant 7<sup>th</sup>. Or you could just as easily say it strongly implies C Lydian but with a raised 9<sup>th</sup>. 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 | B/C | C $\Delta$  ||

Miles also often used this hexatonic 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. Strictly speaking, the slash chord B/C means B triad over the *note* C, but it's common to combine the two triads in such situations.

## 8. AUGMENTED HEXATONIC

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



This is a totally symmetrical scale comprised of minor 3rds (or augmented 2nds) 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 7<sup>th</sup> chords (with optional #5<sup>th</sup>) – CΔ, EΔ and A<sup>b</sup>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:

|                  |                                 |                       |
|------------------|---------------------------------|-----------------------|
| DØ               | G7 <sup>b</sup> 9               | CΔ (+5)               |
| F#Ø              | B7 <sup>b</sup> 9               | EΔ (+5)               |
| B <sup>b</sup> Ø | E <sup>b</sup> 7 <sup>b</sup> 9 | A <sup>b</sup> Δ (+5) |

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

The symmetry of the scale gives it a very distinctive sound that arguably overrides the considerations of traditional harmony. So you can look to use it more freely as a substitution – or maybe more accurately, a superimposition.