

LESSON 21

EVOLUTION OF SCALES

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Tune: A well-known tune in the 'D mode'. - Scarborough Fair

When you started **Book 1** of this course, the first thing you learned about was the note middle C. Then you learned the white notes up from there: C D E F G A B C and so on.

Beginning students sometimes ask, 'Why do we have to start with C? It would be easier if we started with A. Why is middle C the point of orientation on the piano, and not A?'

And here is my answer.

Imagine you are a harpist. (Maybe you are!) As you probably know, a harpist is someone who plays the harp.

You are on stage playing a concert for your audience.

And you have a problem.

You notice that your audience is not very enthusiastic about your music. In fact, some of them appear to have fallen asleep.

After the concert, you go to your harp teacher to ask her advice. She looks at the sheet music you played in the concert, and says, 'Your problem is that you're playing everything in the same key, C major. That makes it boring to listen to. You need to vary the keys. Your first piece is a lively dance tune. Play that in G major. Then you have a sweet love song. Switch to E flat major for that. Then try D major for the piece by Mozart.'

You learn to play the pieces of music in different keys, and your next concert is a great success.

Now imagine you are a musician 2,500 years ago in ancient Greece. You play the lyre, a type of harp. You notice your audience falling asleep and you go to your lyre teacher for advice.

She can't tell you to play in different keys, because keys and black notes will not be invented until 2,000 years later. Until then, all you have are the 7 'white notes' A B C D E F G. So what can your teacher tell you to do, to introduce variety into your music?

'Your problem,' she says, 'is that you're playing everything in the same mode. That makes it boring to listen to. You need to vary the modes.'

What, you ask, are modes?

Definition (simplified): a **mode** is an organization of the white notes with a specific starting and ending note.

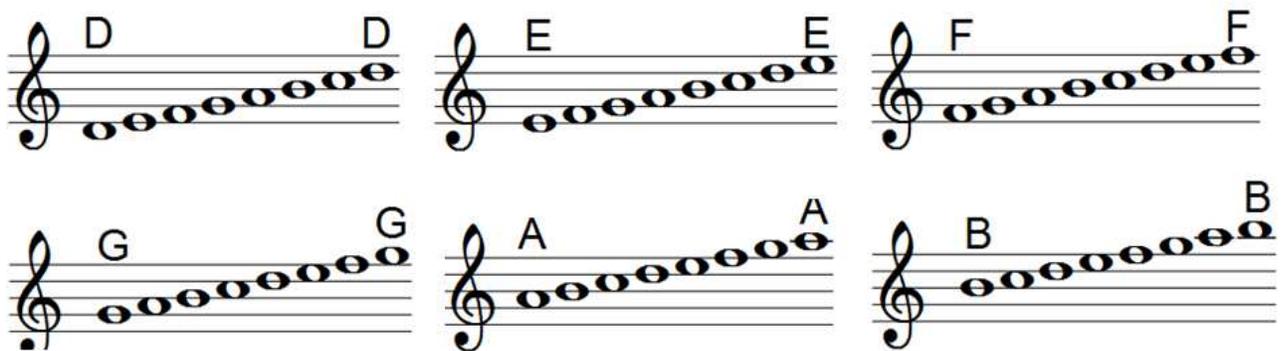
That's a simplified definition that will do for present purposes.

Here is one mode. This one starts on C and ends on the next higher C. Play this:



Nowadays we know that as the scale of C major. But in ancient Greece, you would have known it as a mode.

Starting and ending on C is just one of 7 options. Here are the other 6 options, giving us 7 modes in all. Play these, and listen to the quality of each one as you play:



Just to make sure this is clear, these are all white notes, no black notes involved.

These modes all have names which have changed over the millennia and have varied from one culture to another. I'm going to spare you learning those names. You can Google them if you're interested. For simplicity, I'm going to call them the 'C mode', 'D mode', and so on up to the 'B mode'.

The next question is, if we're playing all the tunes using the same 7 white notes, what difference does it make where the scale begins and ends?

Well, let's find out.

Ideally, at this point we would play a tune from ancient Greece.

Unfortunately, it seems none of the Greek musicians said, 'Hey, that's a nice tune, let's write it down'. So I've written my own 'Ancient Greek Tune'. Here it is, in the 'C mode'. Play this:



How do we know it's the 'C mode'? We saw earlier how most tunes end on the tonic, the starting note of a scale. This tune ends on C, so that is a big clue. It also starts on C. You can feel how the tune starts on C, moves away from it, and comes back to it. So this tune is in the 'C mode'.

Now here it is in the 'D mode'. Play this, making sure you play only white notes:



Do you hear how this version of the tune is oriented toward its tonic, D? It starts on D, and more significantly it ends on D.

This tune is not in the key of D major, because we are not playing F sharp and C sharp. We are playing only white notes.

It is a *different tune* from the 'C mode' tune, because it has *different intervals*. For example, the last interval in the 'D mode' tune is a *whole tone* from C to D. The last interval in the 'C mode' version is a *half tone* from B to C. The intervals are different, so these are two different tunes.

Here is my tune again in each of the other modes. Play each one and listen to its quality. You can use the same fingering for all of them.

The image displays five staves of musical notation in 4/4 time, illustrating different modes of a scale. The first staff has fingerings 1, 2, 4 above the first three notes. A horizontal line is drawn above the second staff.

No wonder your lyre teacher in ancient Greece would have told you you'd create more interest by playing in different modes. *These are all different tunes, each with its own special sequence of intervals.* The Greeks didn't have keys to work with, but they were able to add interest to their performances by varying the modes.

But, you may ask, what does this have to do with playing modern music?

Well, 300 years ago a division occurred. Some musicians continued to promote the system of modes which had existed for 2,000 years. Other musicians lost interest in 5 of the modes and kept only 2 of them. The musicians who kept only 2 modes turned out to be the winners of the debate. They established a new basis for music which continues to this day.

Which 2 modes did they keep?

Clearly, one of them is the 'C mode', which evolved into our C major scale: C D E F G A B C.

And the other winner? The 'A mode': A B C D E F G A. We now call this the **scale of A minor**. You're going to learn about minor scales in just a moment.

So we have:

- C major: C D E F G A B C
- A minor: A B C D E F G A

Here is my tune in the 2 modes musicians decided to keep, first the 'C mode' and then the 'A mode':



Tune in the 'C mode'. This mode evolved into the major scale.



Tune in the 'A mode'. This mode evolved into the minor scale.

In the last few centuries, nearly all music has been based on either the major scale which evolved from the 'C mode', or the minor scale which evolved from the 'A mode'.

The other 5 modes have ended up being used mostly for special effects such as evoking ancient times or monasteries. They are also used for creating a special quality in a tune or song. And you'll find them in songs written earlier than 300 years ago, before music set off in a new direction. You'll see an example in a moment.

You've learned a lot about major scales already. We'll take up minor scales in the next lesson.

But first let me answer the beginning student's question: 'Why do we have to start with C? It would be easier if we started with A.'

My answer is that most music used to be based on the mode that starts on A (what we now know as the minor scale), so the choice of the letter 'A' made perfect sense back then. But in the last few centuries, music has become more oriented to the major scale starting on C. Hence the emphasis on middle C as the orientation point in music.

Apparently there has been a shift back to minor keys in the popular music of the past few decades.

By the way, as an experiment I looked at the concert programs of various symphony orchestras. I wanted to see if they apply the principle of mixing keys within a concert to create interest. Out of ten concerts with a total of 28 pieces of music, there was not a single instance where a piece of music was followed by another piece in the same key.

Tune for Lesson 21:

As you've gathered, going forward we're going to focus on the 'C mode' (major scale) and 'A mode' (minor scale).

But before we leave the other 5 modes behind, let's pay a visit to one of them.

A well-known tune in the 'D mode'.

This traditional tune is in the 'D mode'.

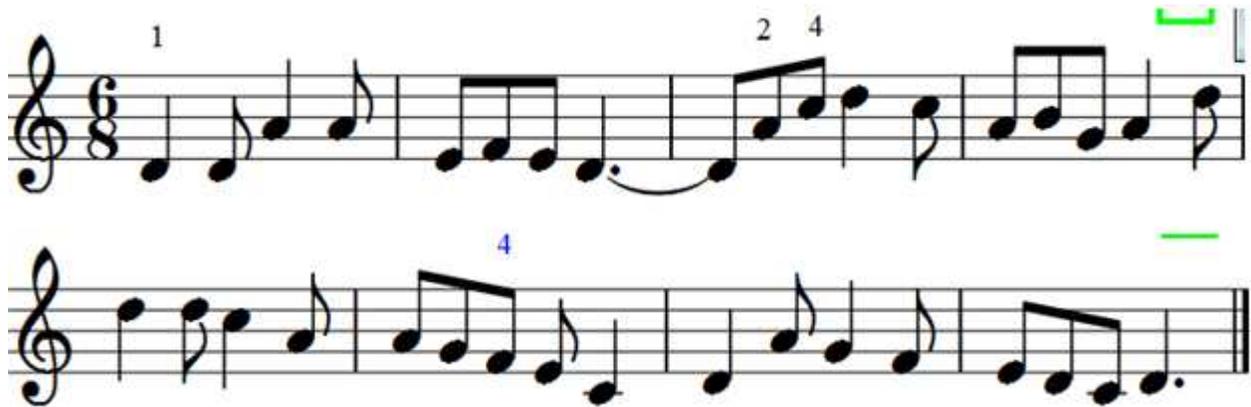
How do we know that? Because it contains only the white notes and it ends on D.

In other words, it is based on this scale of white notes:



Not only does it end on D, but the note D is a main focal point throughout the tune. This tune is very D-oriented.

It is in the 'D mode'.

Scarborough Fair

A tune in the 'D mode'.

Isn't that a pretty tune?

How would you describe the effect created by the 'D mode'?

The words associated with this tune refer to an annual market in the coastal town of Scarborough in the north of England. This amazing, gigantic annual market was established 800 years ago, and was attended by merchants from all over Europe. So this tune was probably written long before the new major/minor system of music started to replace the modes.

I told you I wasn't going to give you all the names of the modes, but you might like to know that this one, what I've been calling the 'D mode', is really called the 'Dorian' mode.



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