

So here we are with a view of the cochlea. The cochlea now uncoils, and we look at the basilar membrane, and now you'll see what happens when we play individual tones. Now a chord. And finally something really complex. So I kid you not, this is really what is going on in your ear all the time, it's rather amazing, isn't it? This, for those of you with a mathematical bent, is rather like what is called spectral analysis or Fourier analysis. You break down a wave form into its different sinusoidal components, because each and every wave form that's out there, every sound you can hear, can be described as the sum of a series of sin and cosine waves, and that's exactly what this apparatus does.