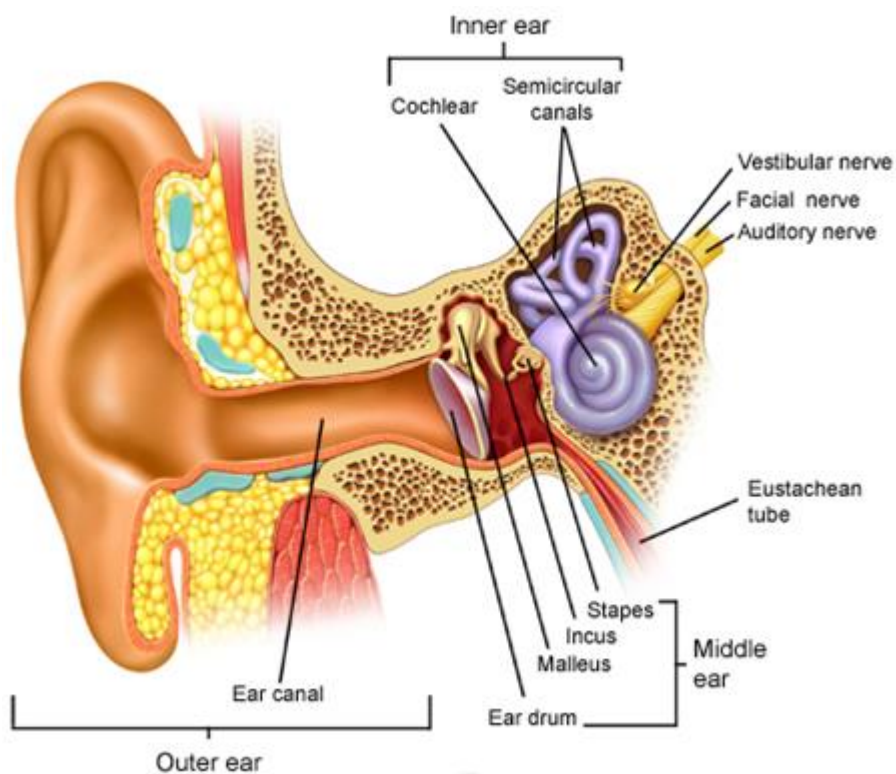
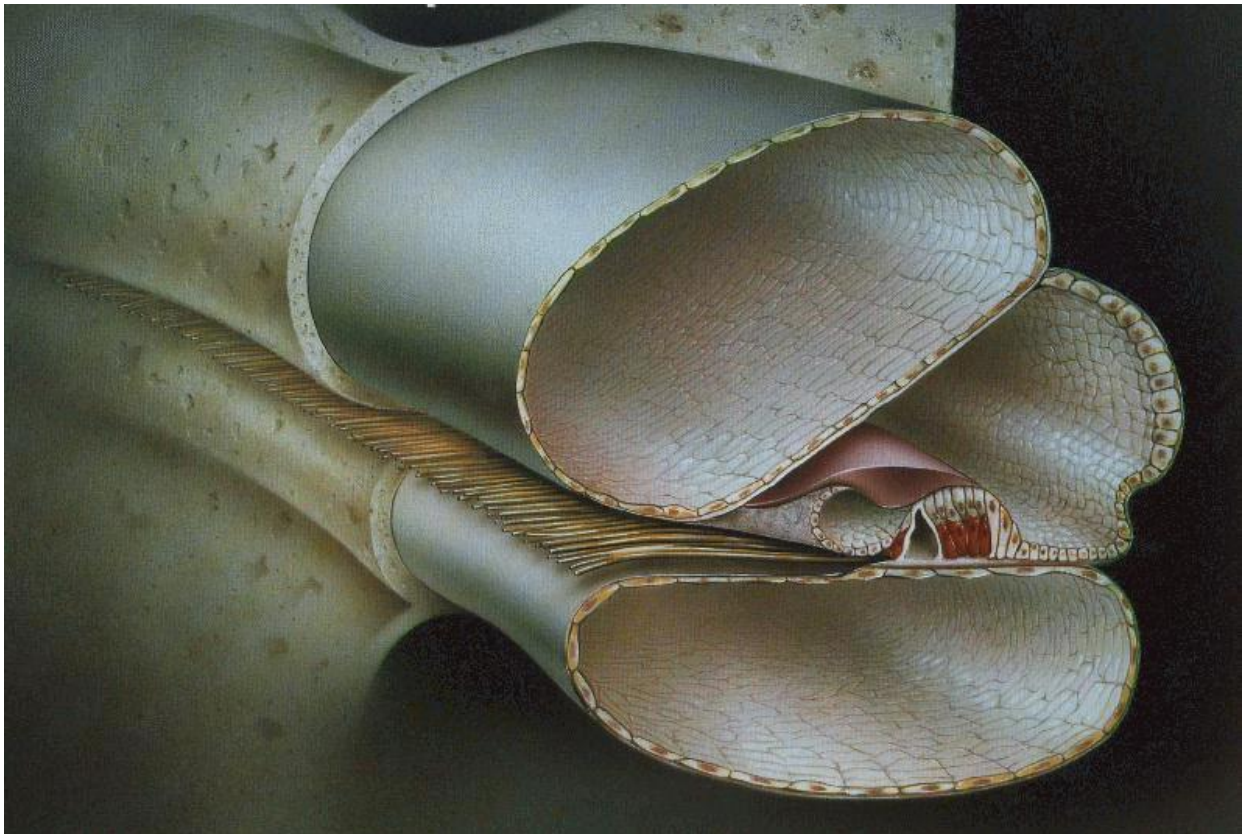
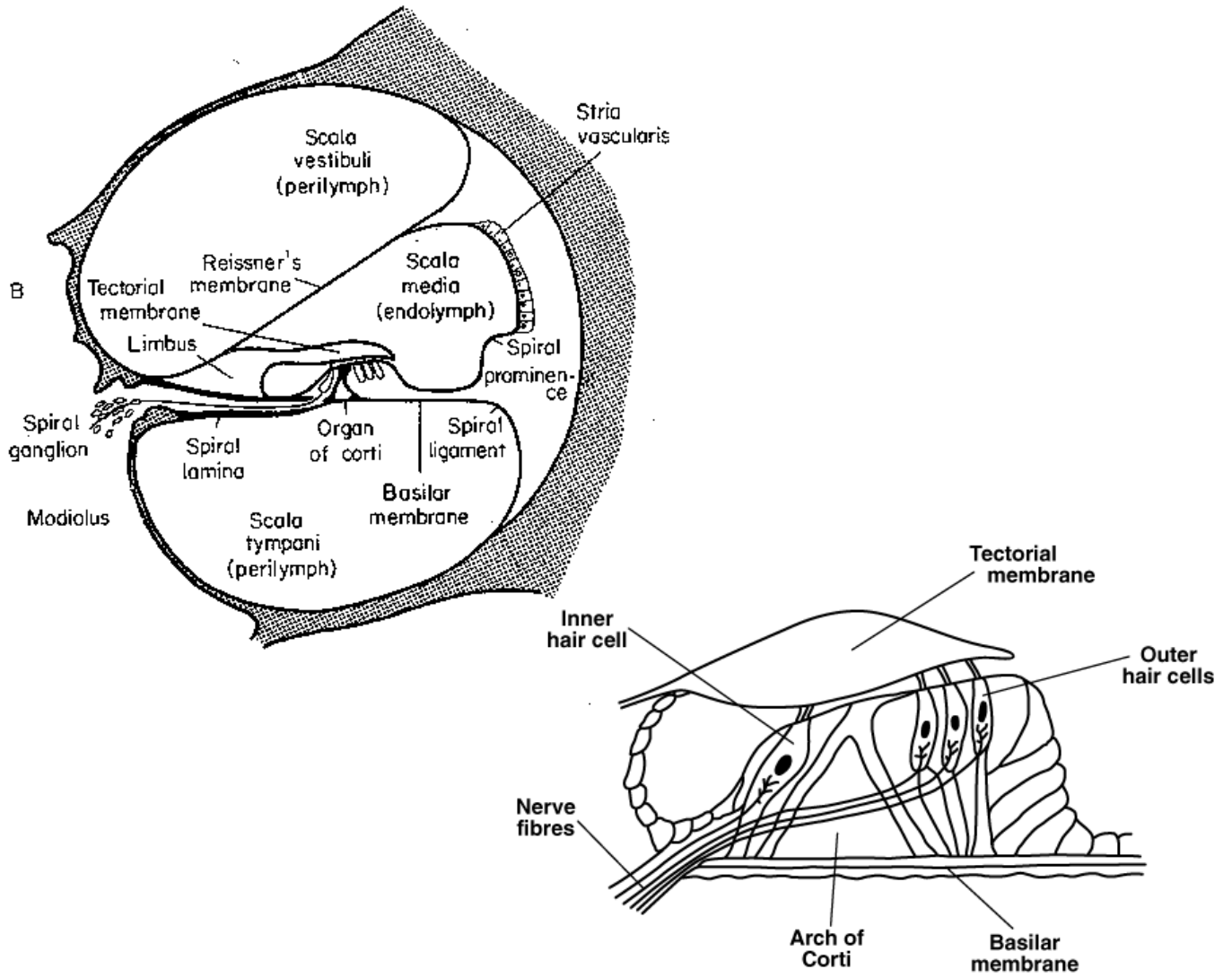


# Sound: the Good, the Bad and the Strange

1) <https://www.youtube.com/watch?v=aOMVdOc9UbE>

2) The Ear





3) **"The Good"** How useful is sound?

- a. Obviously communication between humans and between animals i.e. bats, dolphins, wales etc.  
<https://www.youtube.com/watch?v=BuKijpDI5Lw>
- b. Ultrasound – What is ultrasound? Scanning babies in womb to produce image

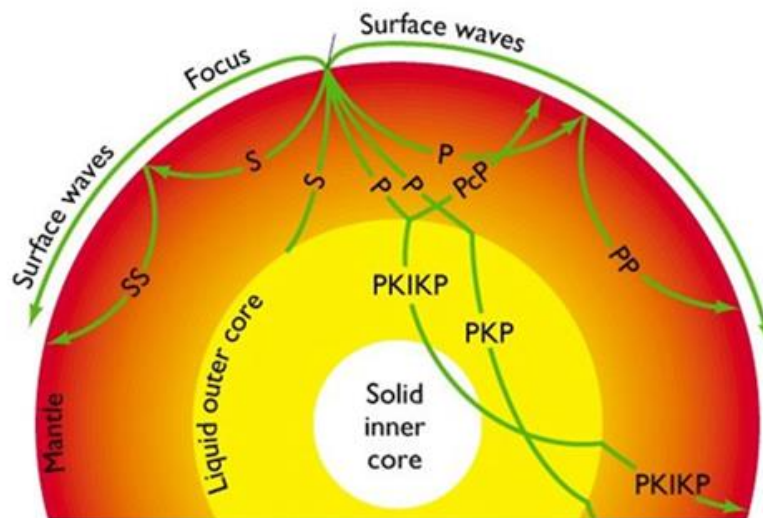


- c. Control – Police and ref's whistle, Old fashioned TV remote controls

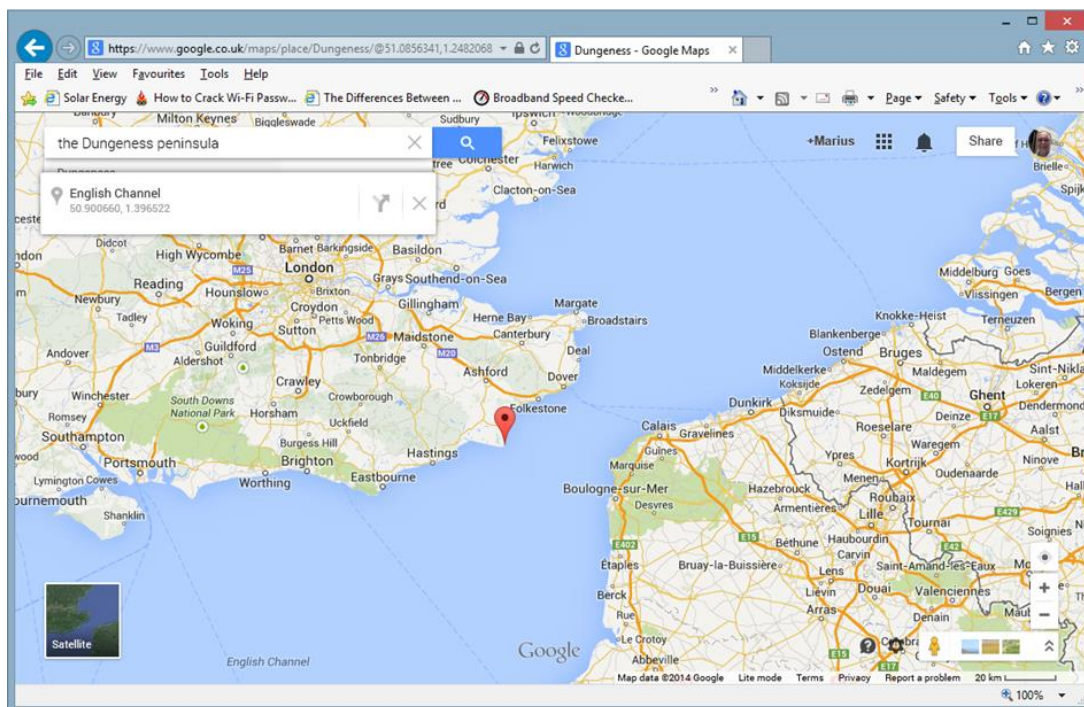


- d. Manipulation – levitation and moving objects - <https://www.youtube.com/watch?v=Ude8pPjawKI> and <https://www.youtube.com/watch?v=Rz6UzqegA6Q>
- e. Echo location, sonar – searching for shoals of fish, plane crash debris, sunken wrecks, submarines etc.
- f. Measuring distances – ultrasonic measuring tape
- g. Measuring densities – structure of the Earth's core by measuring shock waves from explosions and earthquakes

## P-and S-wave Pathways Through Earth



- h. Alarms – fire, break-ins,
- i. Early warning system – WW1 use of acoustic mirrors to detect aircraft, animal response to Infrasound i.e. earthquakes, hurricanes and other dangers





The Denge Acoustic Mirrors on the Dungeness peninsula.

- j. Noise cancellation – in car active noise reduction technology, sound cancelling headsets etc.
- k. Surgery – sound knife



- l. Audio Spotlight - <https://www.youtube.com/watch?v=8wJ5Eff7hx0>
- 4) **“The Bad”** Infrasound, what is it? Sound weapons using Infrasound, non-lethal and lethal – <https://www.youtube.com/watch?v=npMQKKUY4Pg>
- 5) **“The Strange”** – What was the Woodpecker? At one point it was thought the Russians had developed a psychotropic weapon. What is the Hum? [https://www.youtube.com/watch?v=3r-ly\\_n8O7M](https://www.youtube.com/watch?v=3r-ly_n8O7M)
- 6) **“The very strange”** – Synaesthesia, seeing sounds <https://www.youtube.com/watch?v=rkRbevoYqI>