

Reverberation

Main purposes:

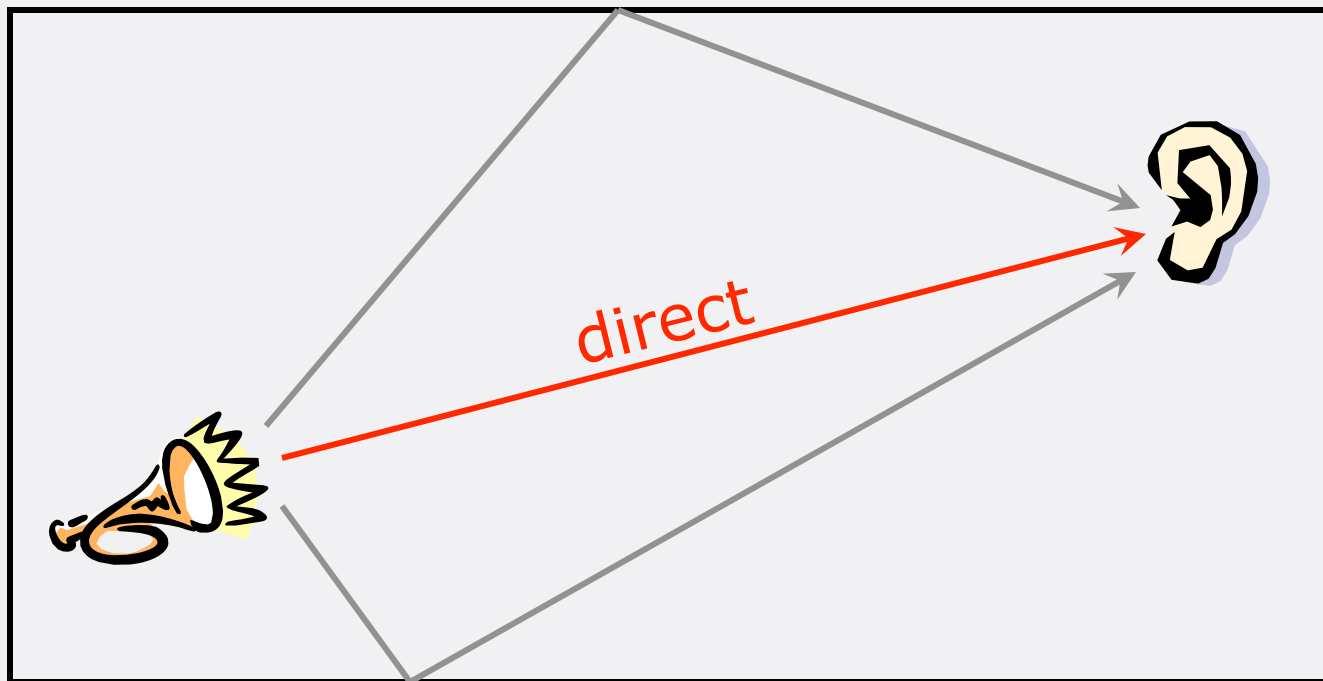
- Make something sound larger than life.
- Soften up rough edges; blur details.
- Create a sense of distance from listener.

Important parameters:

- Reverb time
- Level and pattern of early reflections
- Pre-delay time
- Wet/dry mix

Reverberation

Sound in a space bounces off walls, ceiling; arrives at listener with varying amounts of delay.



Simple indirect paths are **early reflections**.

Reverberation

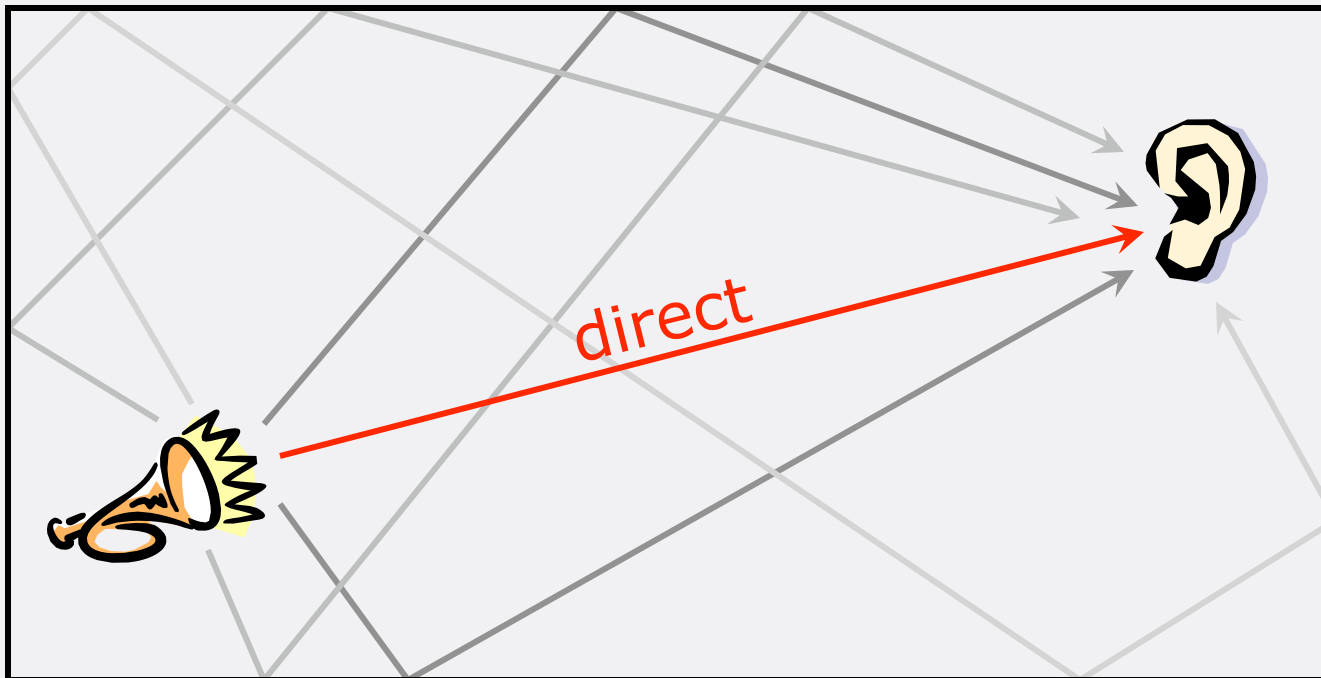
Speed of sound is 1130 ft/sec, so about 1 msec for every extra foot of "detour."



Strength of reflections depends on surface material. Hard surfaces (wood, concrete) reflect energy; soft surfaces (curtains, foam) absorb energy.

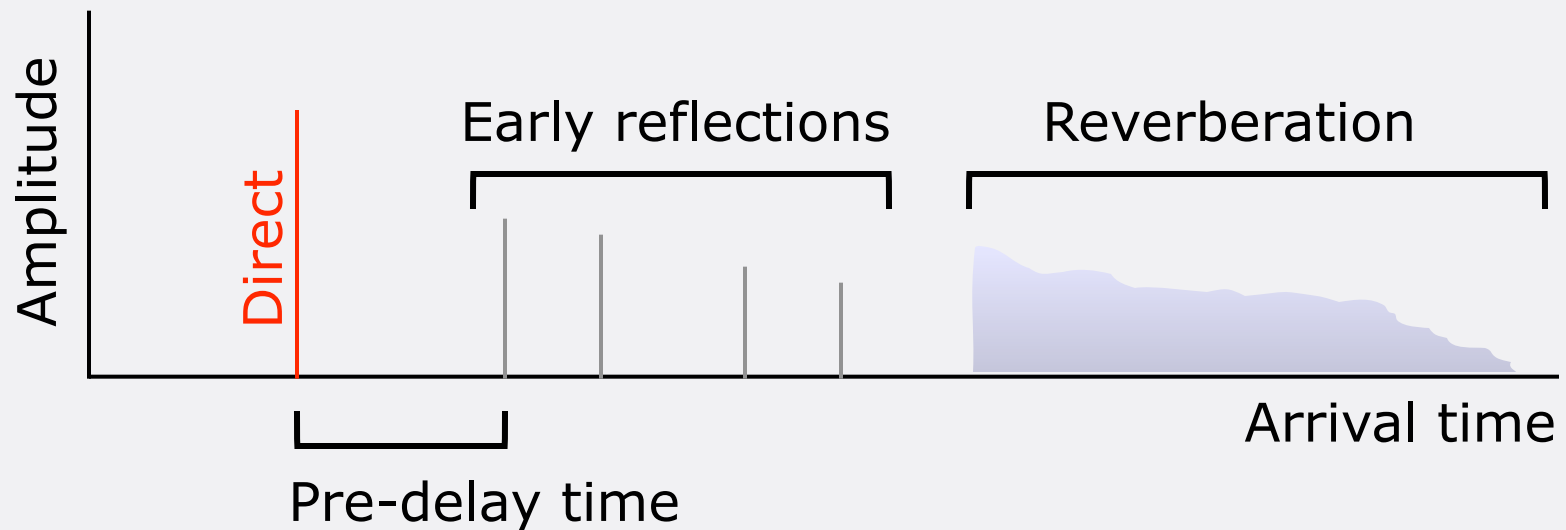
Reverberation

Some paths bounce off many surfaces...



Reverberation

Many indirect paths create dense reverberation, following discrete echoes of the early reflections.



Long pre-delay time sounds like larger space.