TIME DELAY SCALES

	SINGLE	MULTIPLE	FEEDBACK
Micro Level:			
0-.65 msec	**pinna reflections/high freq. colouration interaural time differences sound source localization**		
0-25 msec	**phasing, comb filter timbral colouration**		**virtual pitch added models a resonator**
Meso Level:			
50-100 msec	**early reflection (80 ms) spatial image shift**		**reverberation spatial impression volume of space**
Macro Level:			
> 100 msec	**echo, repetition rhythmic effect**		**slap echo multiple repetitions**
very long	**structural recurrence**		**cyclic repetition**

Notes:

- **boundaries between these various effects are fluid**
- **sounds with sharper attacks are more likely to be heard as repetitions, rather than fused wholes**
- **reflections in an actual space are highly frequency dependent; audio delays may not be**
- **acoustic reflections inherently lose energy; audio ones may not**
- **audio delays require a storage medium (e.g. tape, memory)**
- **audio feedback creates the phenomenon of multiple delays, but may be equally spaced**
- **impulse reverb (realized through convolution) incorporates both the spectral and temporal aspects of reverberation**