

# Sound is Everywhere

- Music Production (classical, pop, jazz, etc.)
- Voice (interviews, discussions, news, audio books, documentaries, etc.)
- Sound Effects (doors, explosions, cars, etc.)
- Combinations of the above: movies, TV, jingles, sound logo's, games, web, etc.

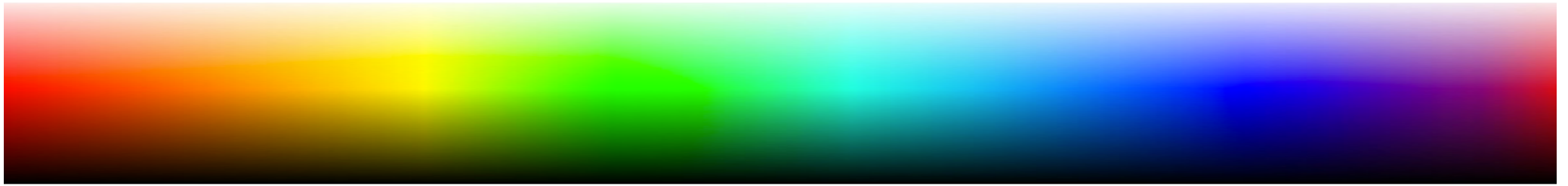
# Media

- Radio Production
- Film/TV Production (sound supporting the image)
- Film & DVD Production (surround sound)
- Web audio
- Games audio
- Music
- Background (shopping mall) music
- 3D or Immersive Audio / 360° audio

Sound is a very  
important factor in  
creating convincing  
video footage

Video is boring without sound..  
But sound can do without video..

We can see from red to violet

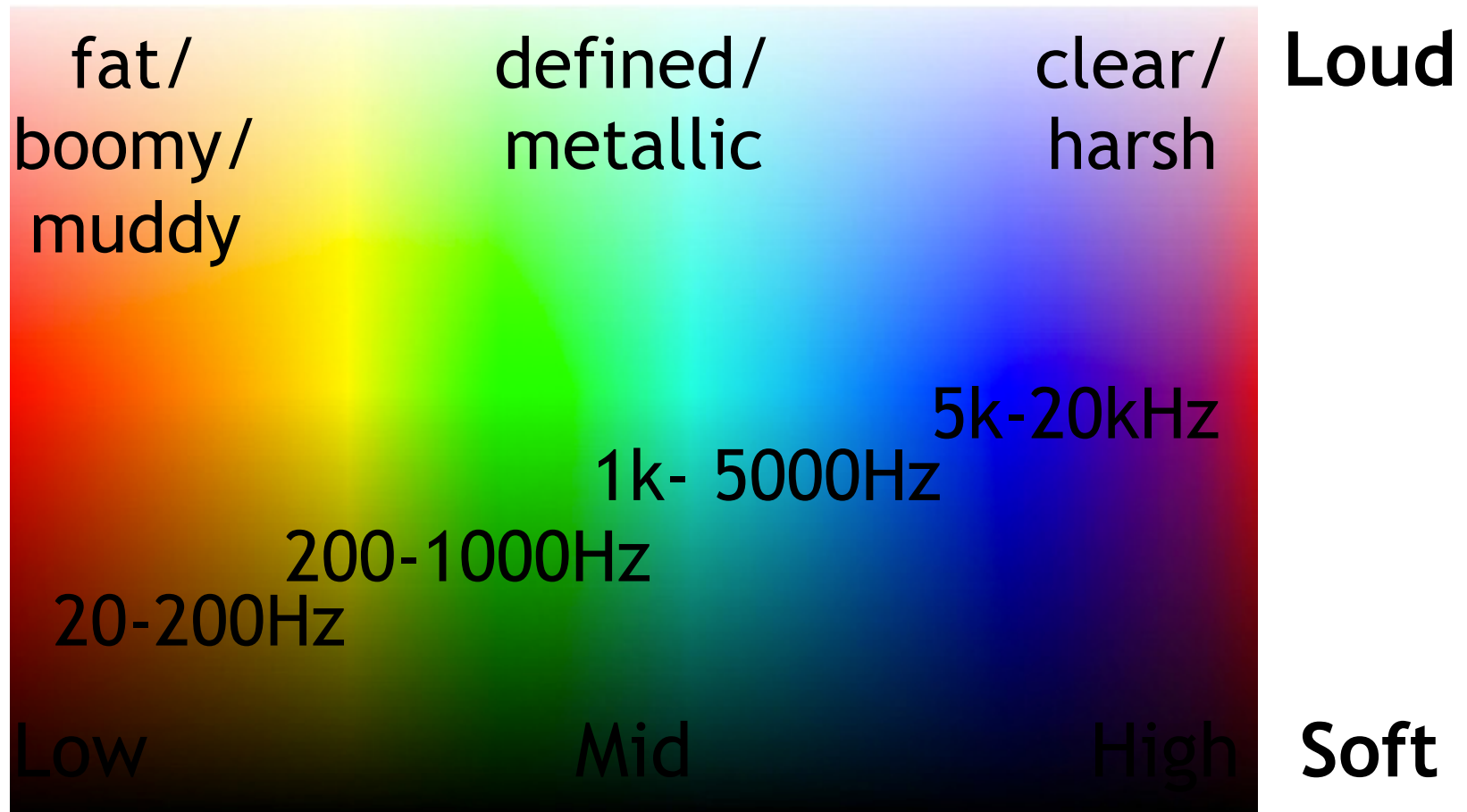


*infrared is too low, ultraviolet too high for humans to see*

We can hear from 20Hz to 20.000Hz



We don't have many words to describe sound





Good...



Bad...

# Example

- Project of students second semester  
'the voice of Chaplin'

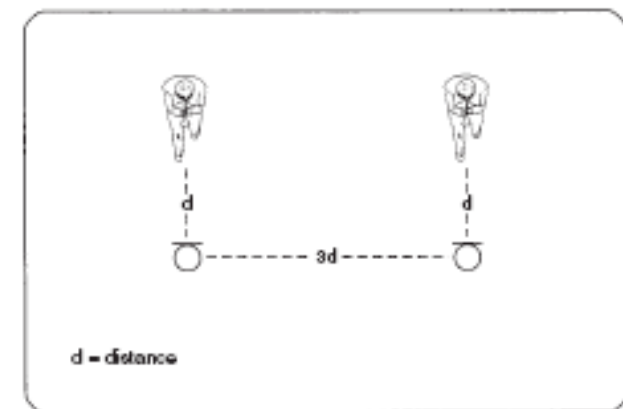
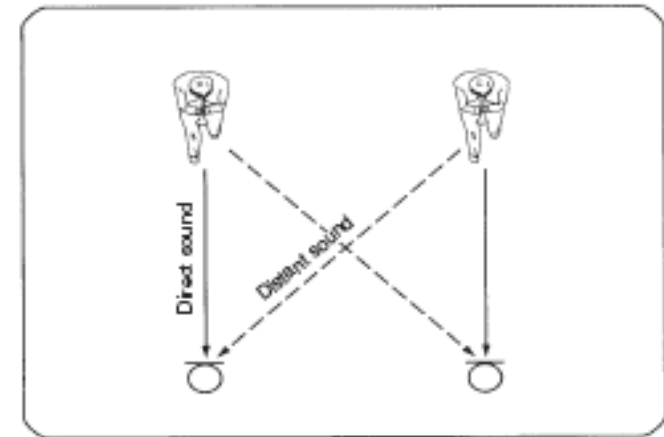
# Audio Process Stages

- 1: Recording/Overdubbing
- 2: Editing
- 3: Mixing and sweetening
- 4: Mastering/Encoding



# I: Recording

- Choice of sources
- Microphone choice
- Microphone placement



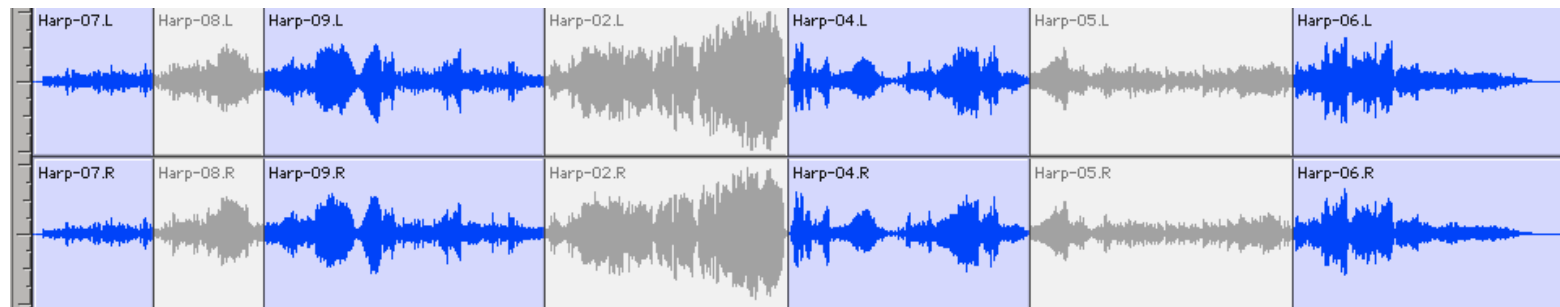
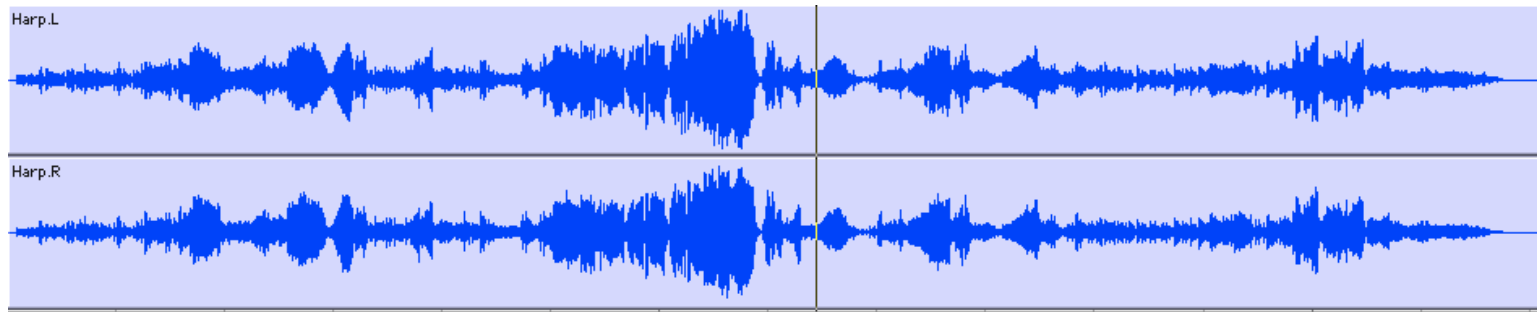
# I b: Overdubbing

- The process of adding sounds later
- You can add sounds layer by layer in a studio
- Film: voice overs, dialogue, music score
- Music: Recording instruments one by one

# Music Examples

- Music Session: Call on me -Unmixed

# 2: Editing: combining different takes



**2b: Editing:  
in film best dialogue is  
chosen from all takes  
and edited sync to  
picture**

# 2b: Content editing

- Digital technology offers extensive editing possibilities
- You can fix timing, intonation or pitch of any performance and create one final (comped) track from different takes.



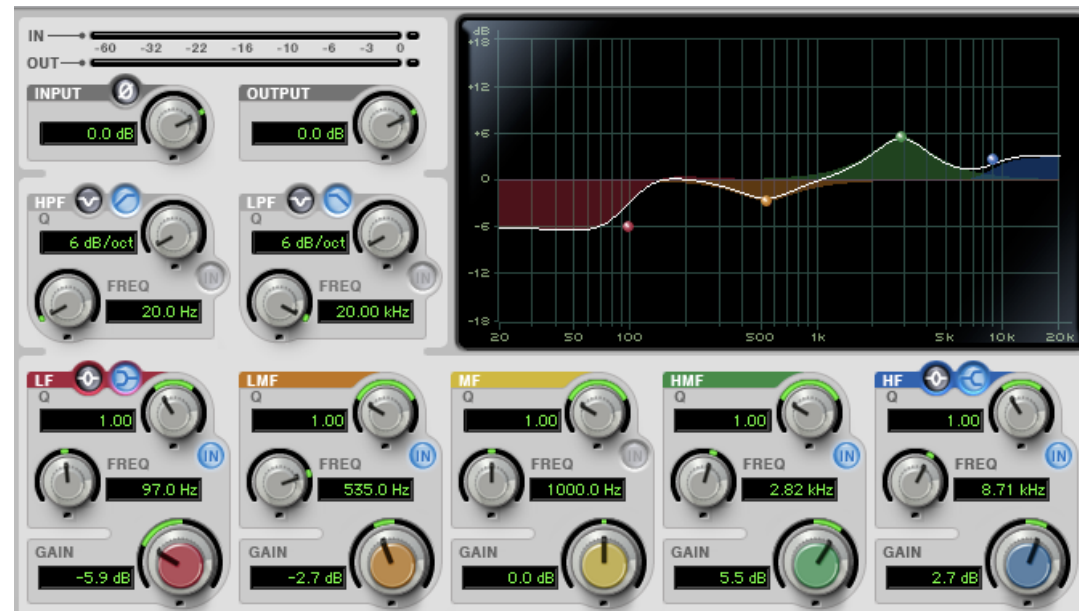
# 3: Mixing & Sweetening

- Make everything sound as good as it can be
- A large toolkit of Compressors, Equalizers, Delays, Reverbs, Pitch-Shifters, etc.
- Balance the levels and stereo or surround image of all tracks.
- Check Mono Compatibility



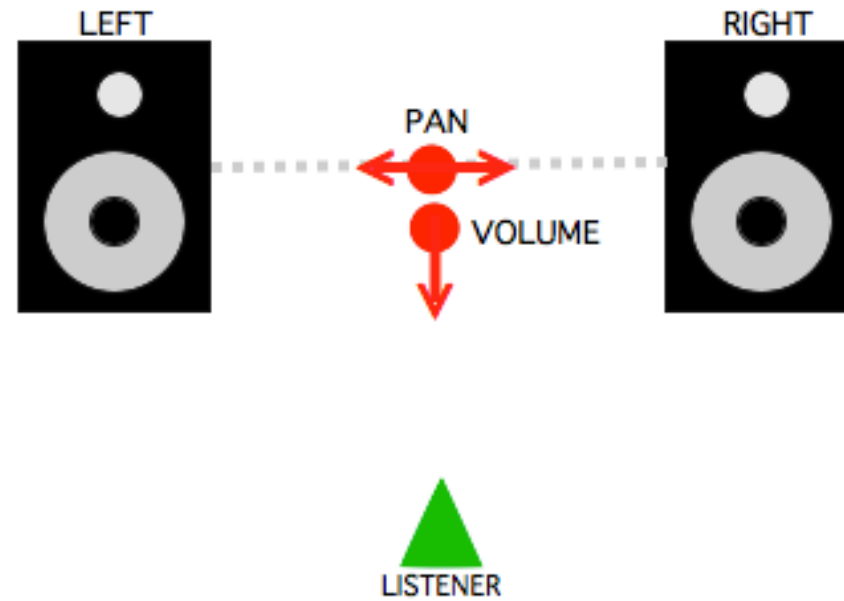
# 3b: Example EQ

colour correction of  
sound

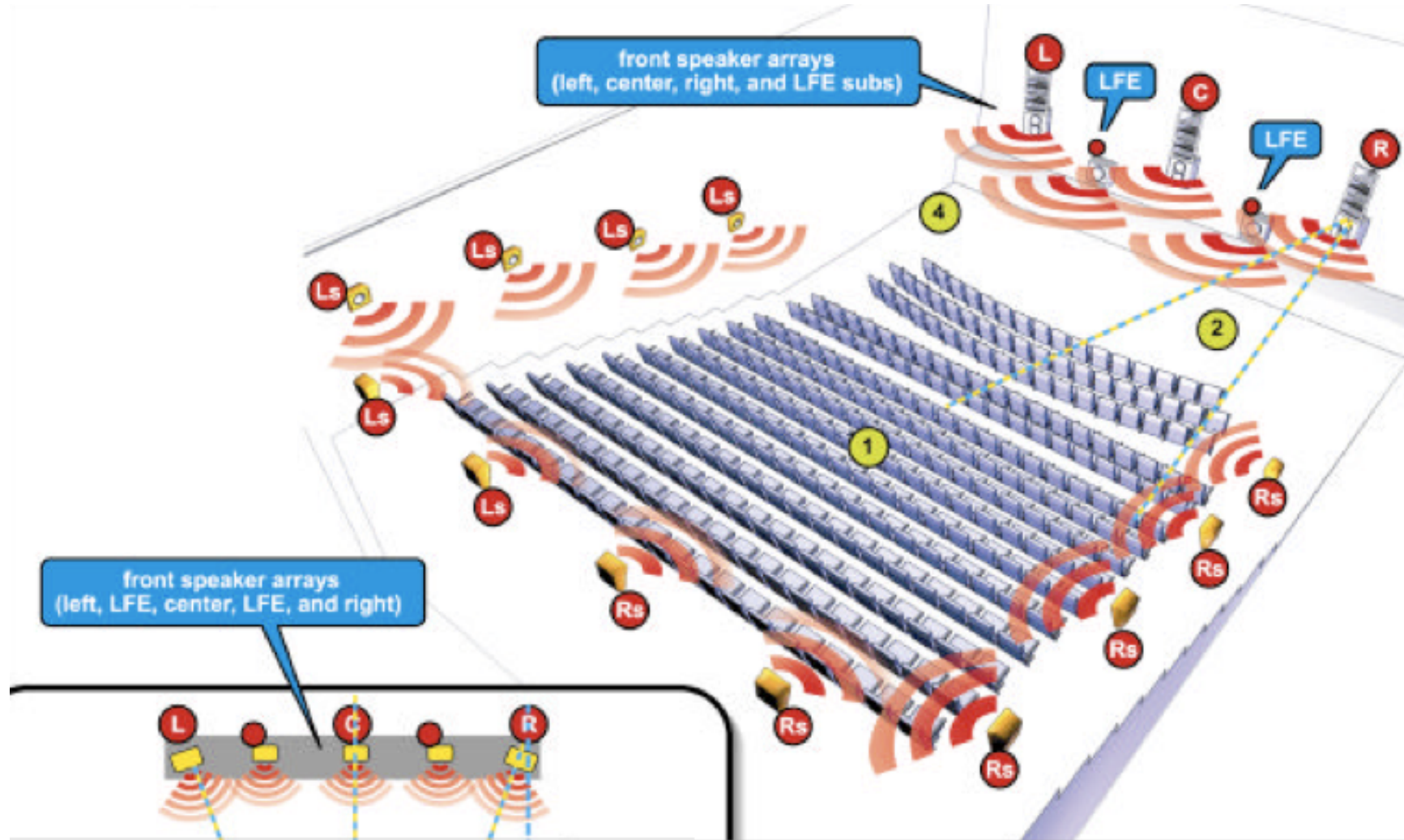




# 3c: Stereo



# 3d: Surround



# 4: Mastering & Coding

- The last step:
- Levelling and encoding for the type of media:
- Web, DVD, Movie, Ringtone, Radio, TV, etc.

- iTunes YT, & Spotify
- R128
- CALM

