

The background features a dark blue gradient with white circuit-like patterns of lines and nodes on the left and right sides. In the center, there is a faint, light blue circular graphic with concentric lines.

HARMONIZING THE SACRED:

The Impact of Sound Systems in Liturgy

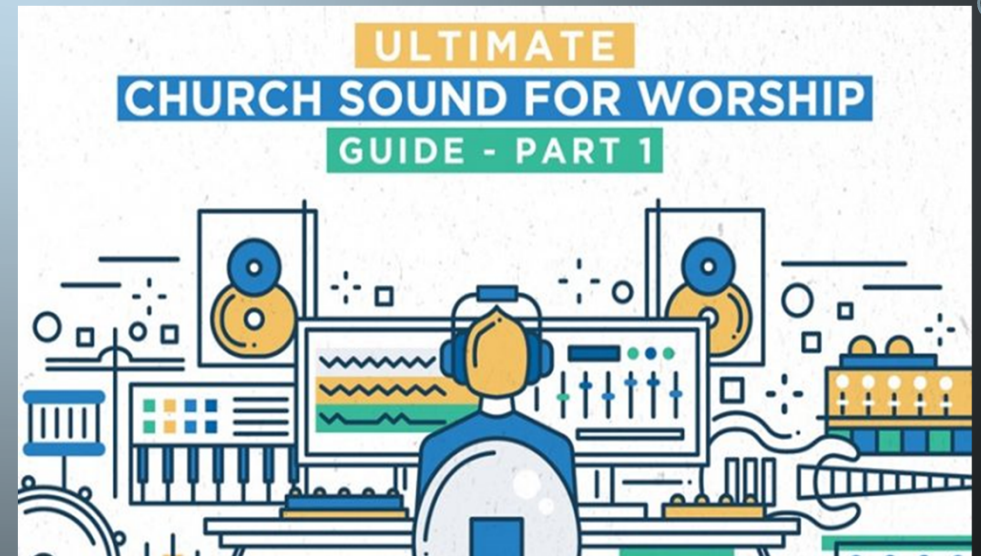
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BEFORE WE BEGIN!

- This is going to be a readers digest version of 45+ years of experience!
- Lets keep this an open dialogue
- Communication is a 2 way street! Lets engage
- Challenge the conversation
- Bring your experiences
- Lets answer YOUR questions!

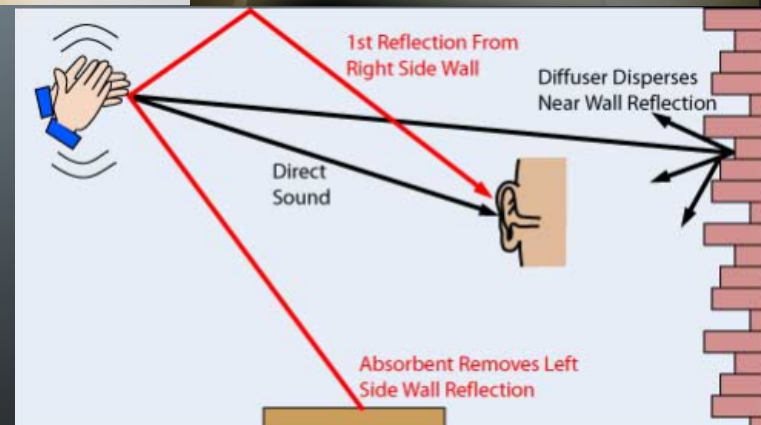
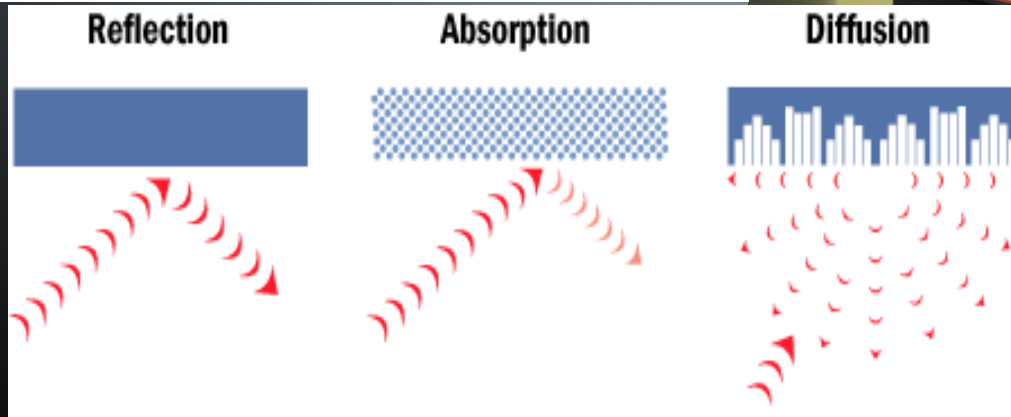
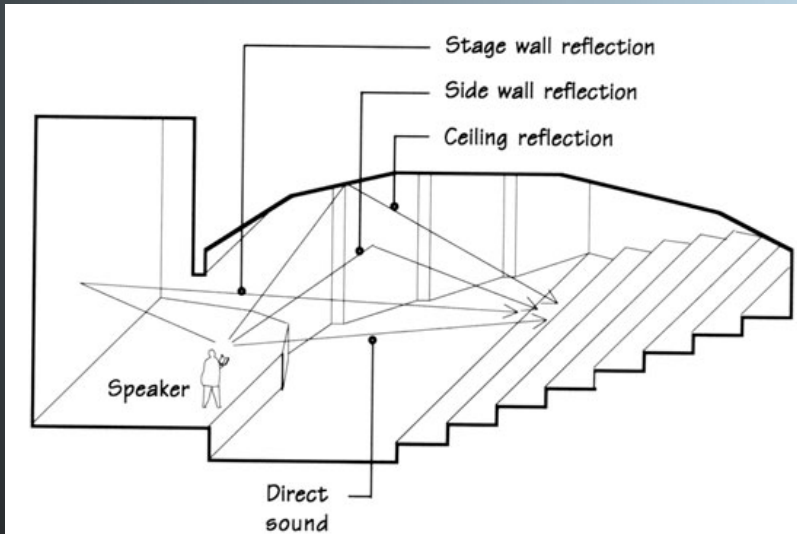
OUTLINE FOR TODAY

- What are YOUR greatest sound system challenges?
- Acoustics impact on space
- Sound System key components
- Space and Acoustics & correlations between each.
- Managing expectations for good sound. Being Prepared.
- Handling problems when they occur.
- Q&A



ROOM ACOUSTICS DESIGN STRATEGIES

Room Shaping & Interior Finishes



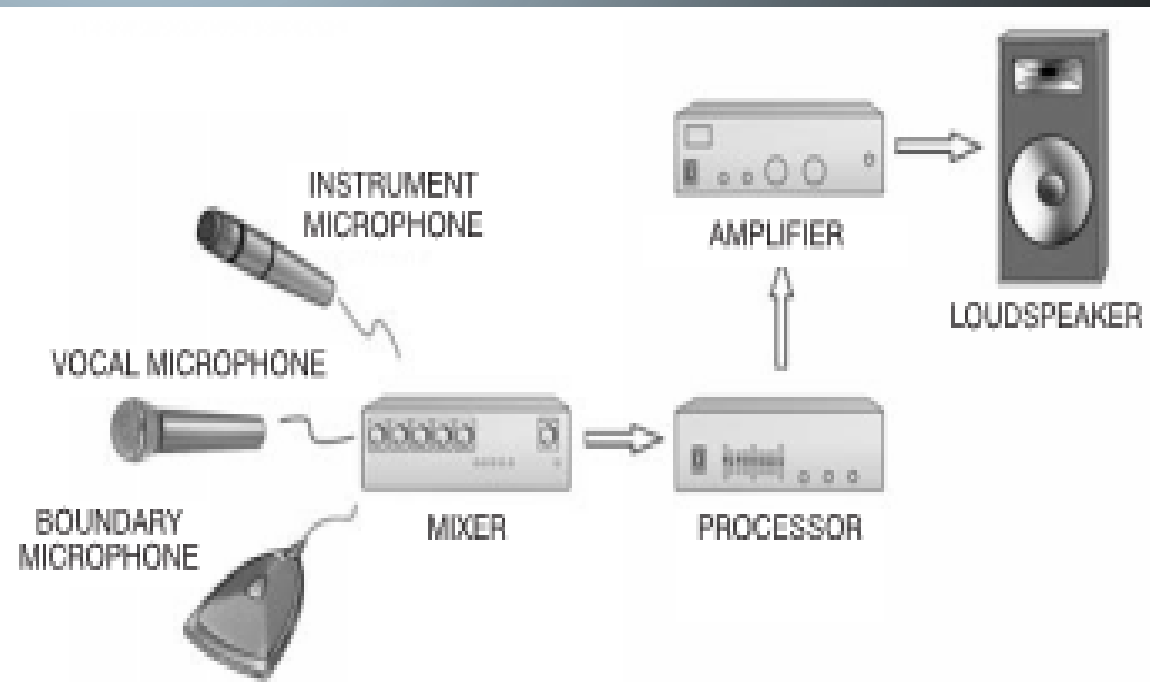
ANATOMY OF A SOUND SYSTEM

- Playing Nice (Acoustics and Amplification)
- IF acoustics is under control, its time to start talking about the fun stuff!
Sound Systems!!



ANATOMY OF A SOUND SYSTEM

- Basic Concepts & Components
 - Sources
 - Cable Paths/Wireless frequencies
 - Mixing
 - Signal Processing
 - Amplification
 - Speakers / Monitors



SOURCES

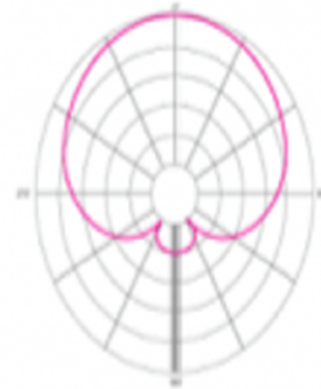
- Microphone Types
- Pickup Patterns



Omni



Cardioid



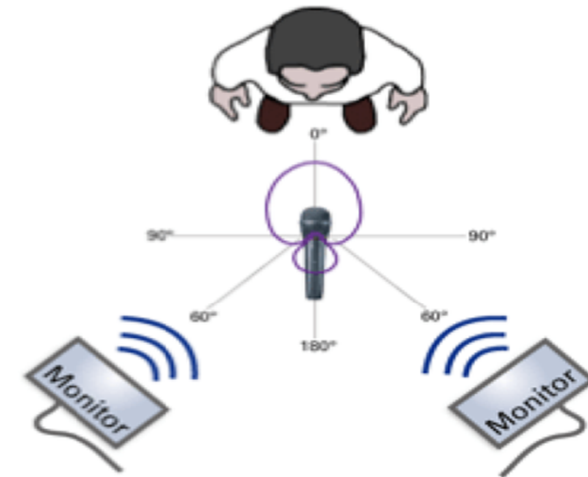
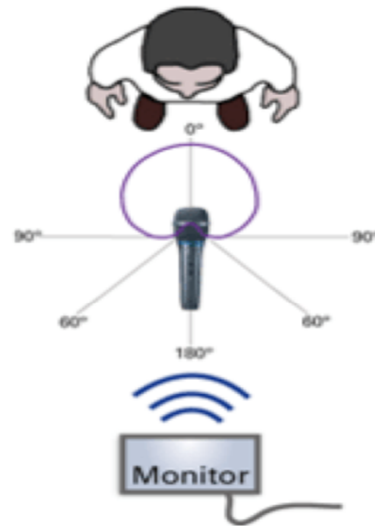
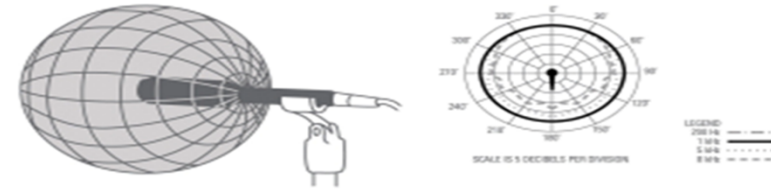
Super-Cardioid



Hyper-Cardioid

WIRED MICROPHONES

- Right Mic, Right application
- Right directionality
- Right placement for speakers



WIRELESS MICROPHONES

- And then we all have to manage Wireless!
- Frequency Considerations/Limitations
- Mobil considerations pro's/con's
- Do we use them everywhere?
- What about low cost systems?
 - You get what you pay for!



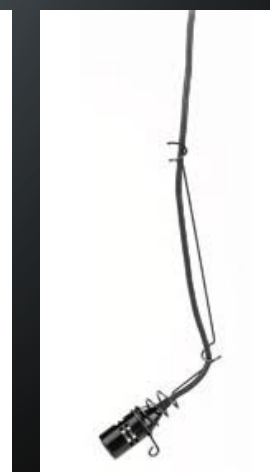
WIRELESS MICROPHONES-LAPEL/OVER EAR

- Attributes can help:
 - reduce feedback
 - Increase clarity and volume
 - Provide less noise from vestments
- Another little known trick that will make you a hero-vestment noise!

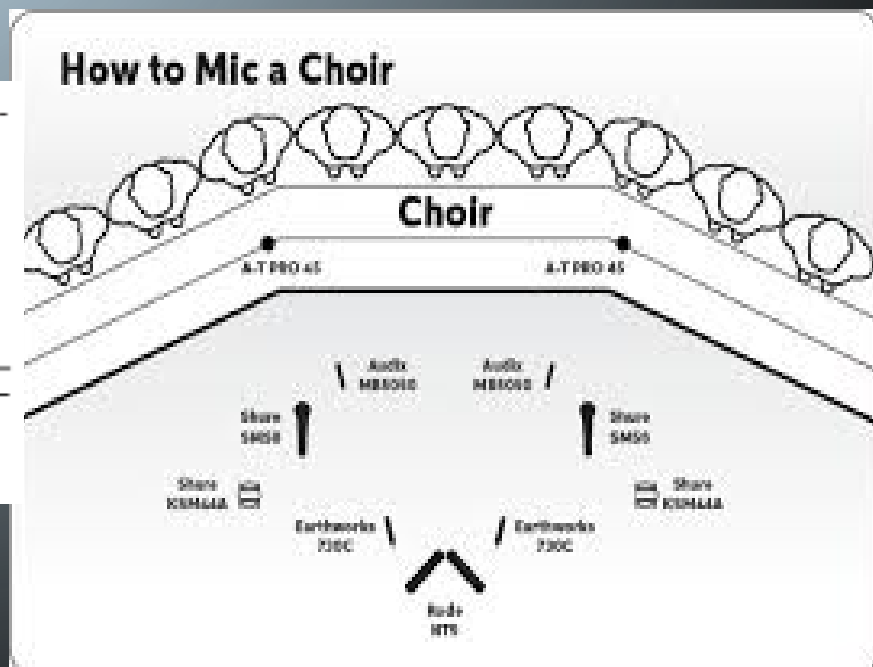
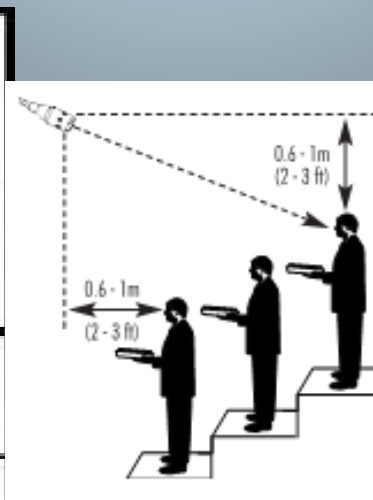
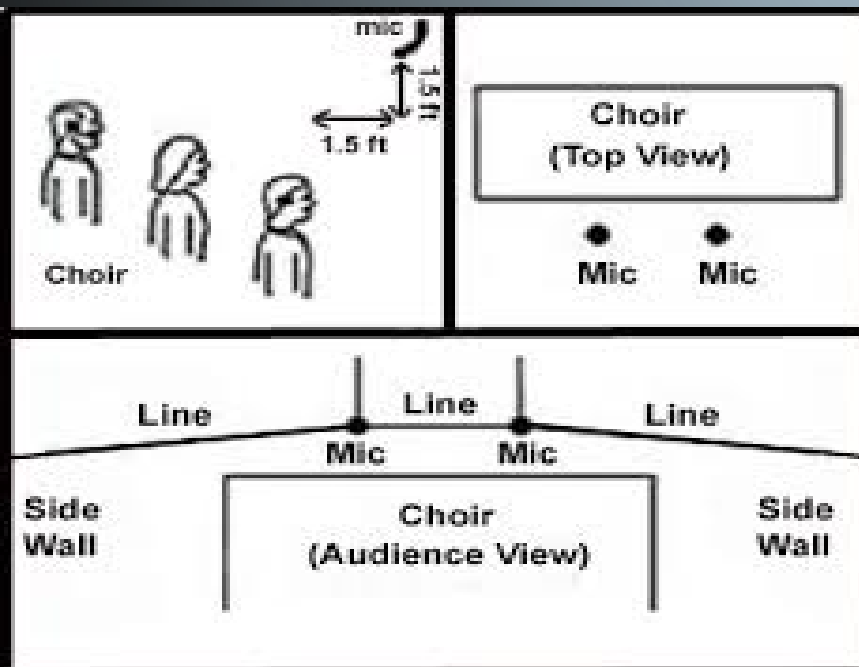


CHOIR MICROPHONES

- Another dimension to consider!
- This can be a greater issue than any discussed thus far
 - Long throw patterns
 - Appearance and location of mics
 - Ability to cover the choir
- And then the Cantor
- Instruments?
- Keyboard or Piano?

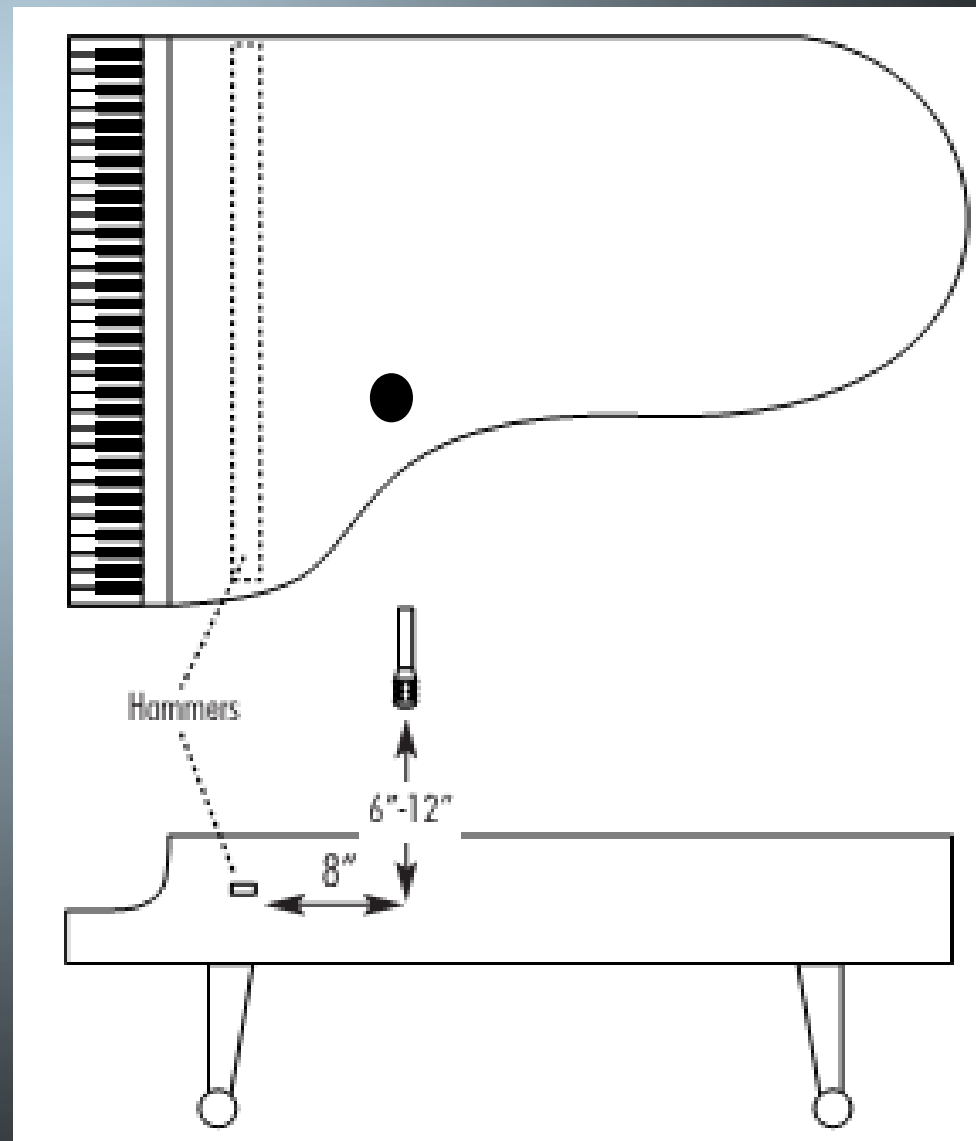
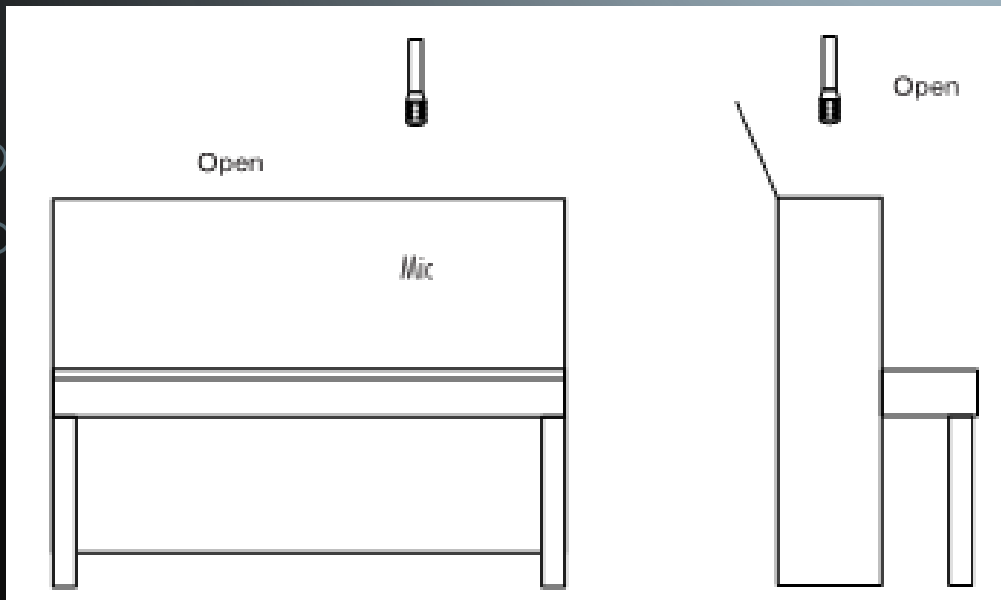


CHOIR MIC TECHNIQUES



PIANO MIC TECHNIQUES

- FEW people know how to properly mic a piano
 - Some include sound experts!



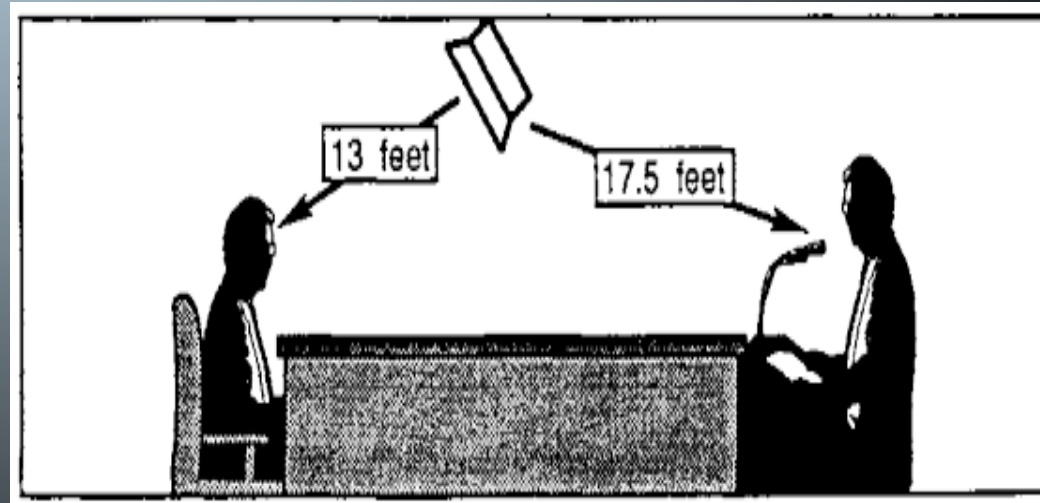
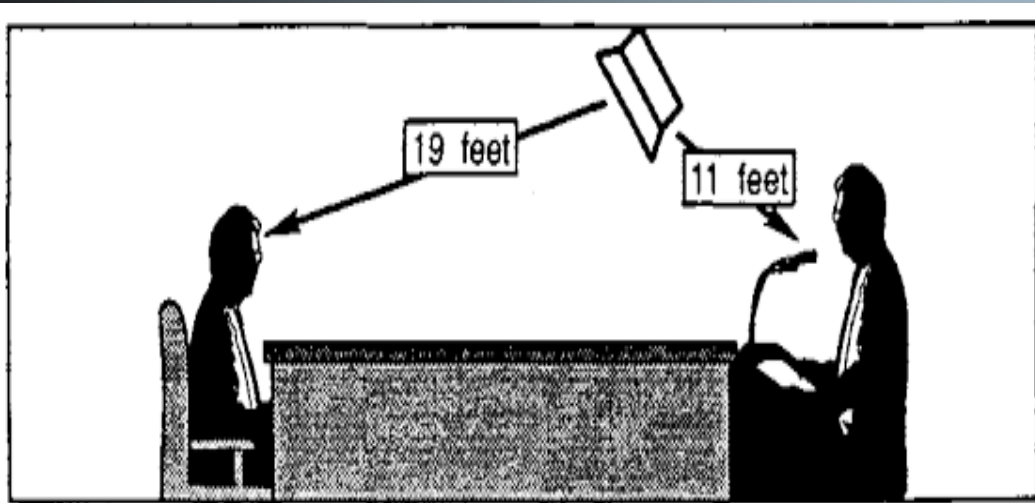
AUDIO PROCESSING & CONTROL

- Wireless interfaces
- Is it always necessary?
- What about automate systems



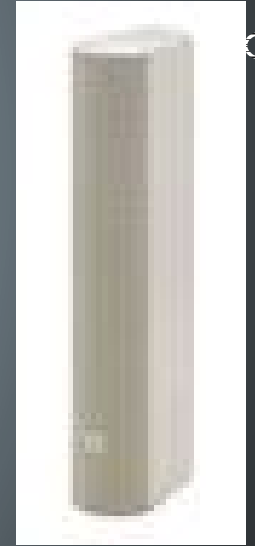
CONTROLLING FEEDBACK

- Lets look at the basics of device placement
- Coordination of Compromises



IN THE BEGINNING....

- Speaker systems
 - Placement
 - Cabinet type
 - Speaker type and pattern considerations



○ AND THAT'S A WRAP! QUESTIONS?



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