

Recording and Reproduction over Two Loudspeakers as Heard Live

Part 2: Recording Concepts and Practices

Don Barringer & Siegfried Linkwitz



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Unanswered questions resurface:

What would it be like to use accurate monitors
in the recording process?

Would they be as important as logic suggests?

Learning from the monitors...

- ❖ There were fewer distractions from the music
- ❖ The stereo canvas was larger than heard before
- ❖ The limits of coincident/near-coincident and spaced microphone techniques were revealed

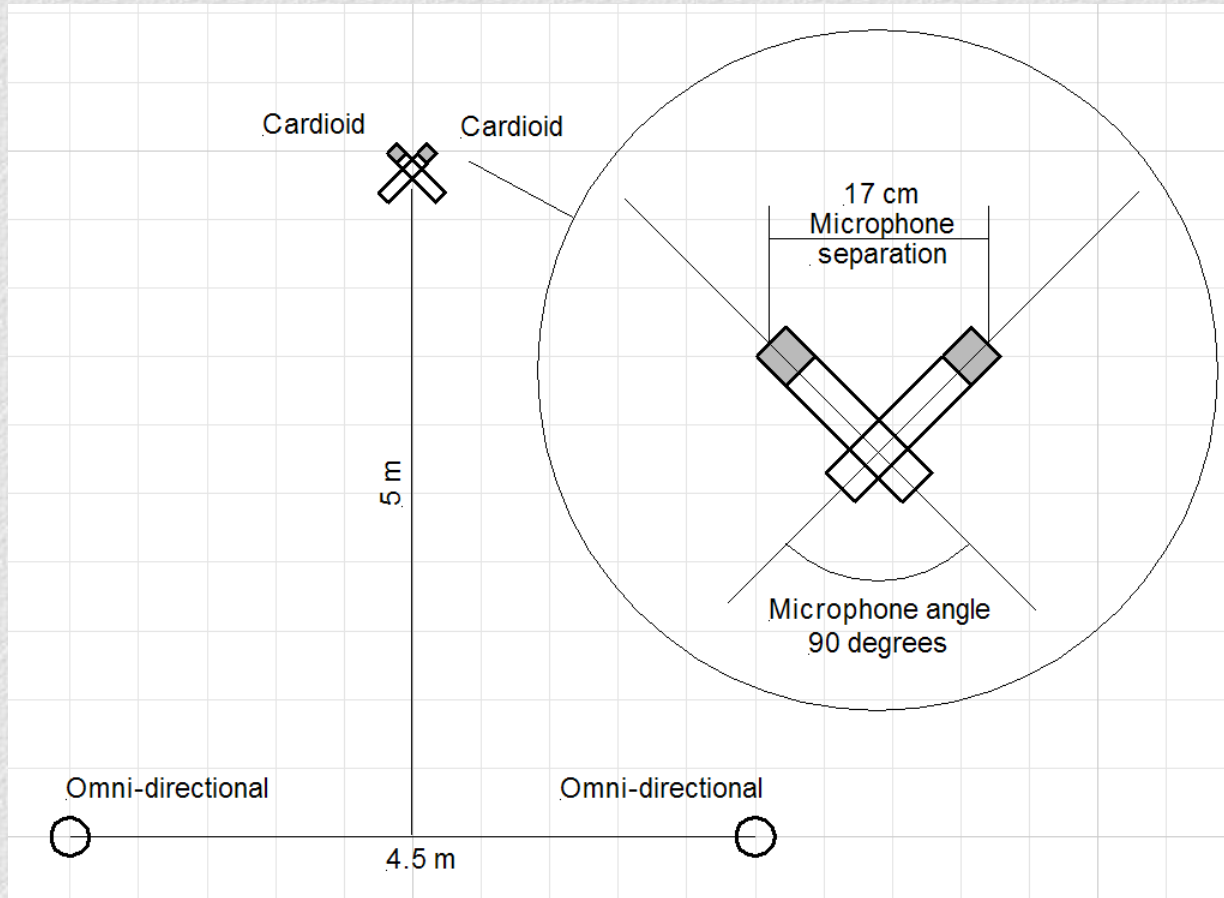
Learning from the monitors...

- ❖ Two microphones, however arrayed, cannot produce a complete recording
 - ❖ All recordings sounded artificial and incomplete to varying degrees
 - ❖ The missing quality was realism

Reality based recording

- ❖ First, audience or podium perspective?
- ❖ Combine spaciousness and coherence

Source + Response microphone array



Recording plan

- ❖ Location of front pair determined by ear
- ❖ All microphones placed at ear height
- ❖ Cardioids aimed horizontally; omnis vertically
- ❖ Recorded on 4 channels while listening
to the live performance, for later mixing

Source microphones



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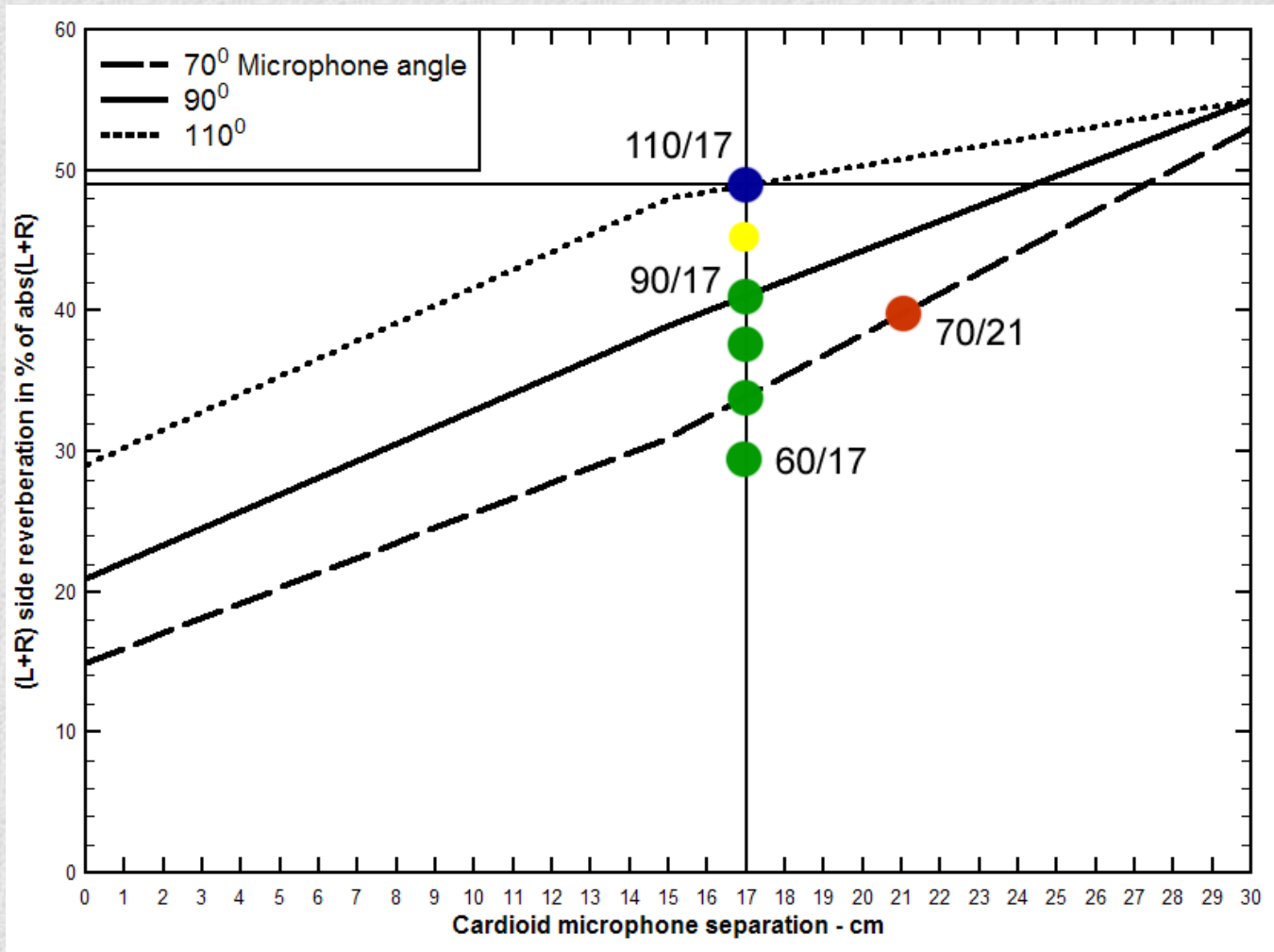
Results

- ❖ The two microphone pairs combine constructively
- ❖ The live experience was replicated in the living room
- ❖ The absence of a recording engineer was noticeable
- ❖ The stereo seat was of reduced importance
- ❖ The stereo format contains a surprising capacity that had clearly been unexploited
- ❖ Realism can be recorded and reproduced

Refinements

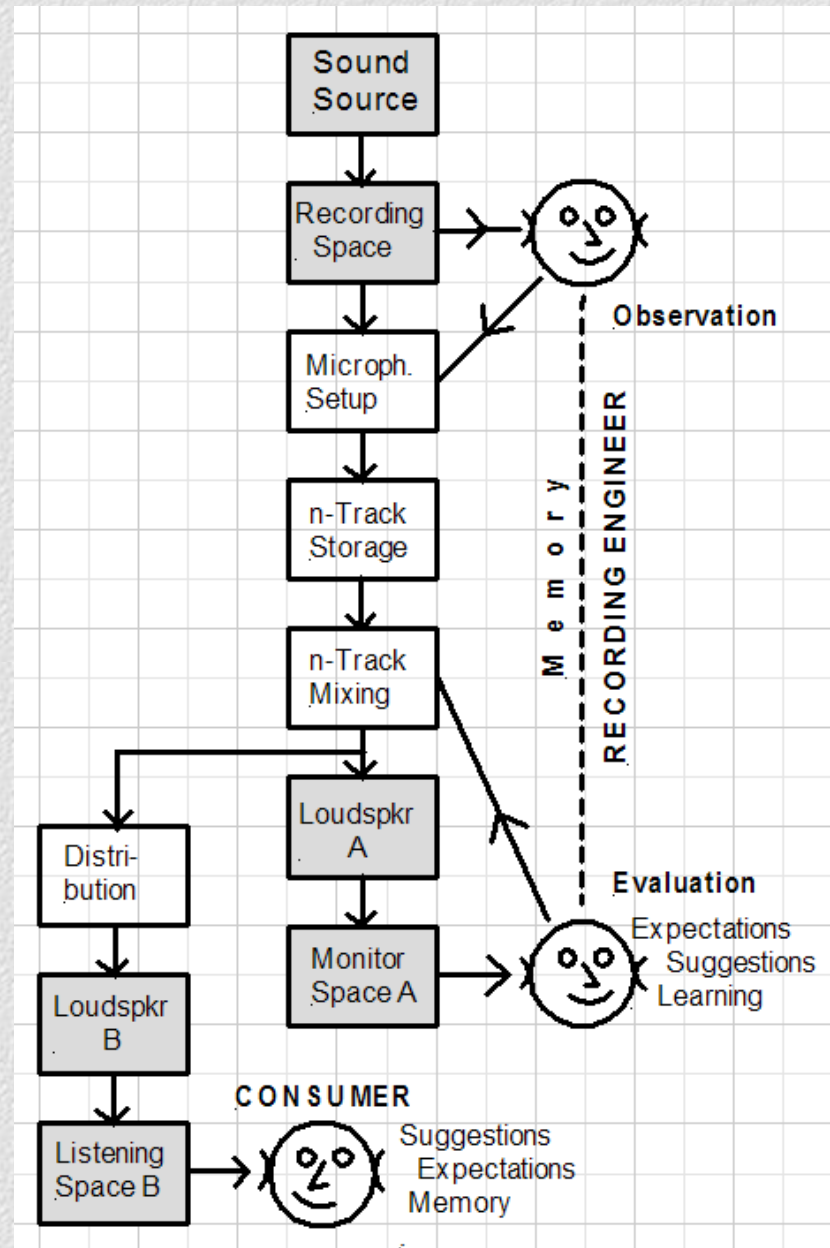
- ❖ Microphone location
- ❖ Front pair configurations

Mono-reverb to stereo ratio



Mix-down...

❖ Retrieving reality



Mix-down...

- ❖ L to R balance of each pair
 - ❖ EQ of rear omnis
 - ❖ EQ of cardioids
- ❖ Balancing front and rear pairs

Sound clips...

❖ Soloists in small concert hall 

❖ Orchestra in cathedral 

❖ Choir and orchestra in cathedral 

In closing...

- ❖ Both coherence and spaciousness are important
- ❖ Natural hearing processes should be respected
- ❖ Accurate monitors are every bit as important
as logic suggests they should be
 - ❖ Further experiments

Thank you for your attention

QUESTIONS?

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