21M.380 · Music and Technology
Recording Techniques & Audio Production

Workshop: Stereo recording practice

Session 11 · Monday, October 17, 2016

1 Schedule

	Group A	Group B	Group C	Group D	Group E
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
12:25pm	Equipment pickup ([redacted], [redacted])				
12:35pm	Announcements (all groups)				
12:50pm	Stereo mic setup (5 groups)				
	Blumlein pair	Ortf	AB	XY	M/S
1:15pm	Identifying other stereo mic setups (all groups)				
1:25pm	Test recording (all groups)				
1:45pm	Packing up equipment (all groups)				
1:55pm	End of class & return of equipment ([redacted], [redacted], [redacted])				

Table 1. Schedule

2 Announcements

2.1 Preview QZ2

2.2 Upcoming recording sessions (still subject to changes)

Date	Recording session
Mon, 11/7	Piano solo
Mon, 11/14	Love and a Sandwich
Wed, 11/16	Psience Phiction
Mon, 11/28	Piano trio
Wed, 11/30	Violin & piano duet

Table 2. Recording session schedule

- Which recording session would you prefer to engineer for? (Don't make it one you might perform in as a musician!)
- Final engineering teams will be announced with SR1 assignment (next class meeting)

3 Stereo mic setup

3.1 Group A: Blumlein pair

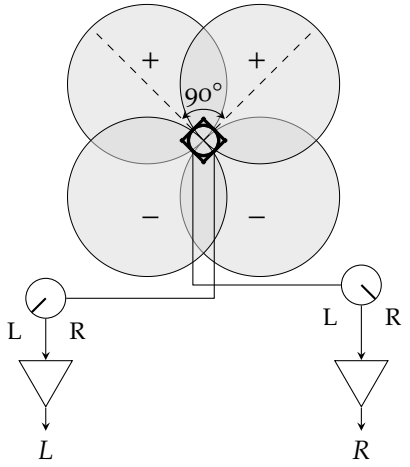

Figure 1. Blumlein pair

1. Set up a Blumlein pair with identical microphones.
2. Use the only suitable mic model that the Moss provides for this scenario.
3. Which options do you have for setting up the microphones?
4. Patch the mics into the only Moss preamp that provides stepped (as opposed to continuous) gain control, using the first input channel for the left mic, and the second input channel for the right mic.
5. Identify the correct channel on the XLR patchbay to patch the mic into, such that you will not need to use any patch cables on the primary (half-normalled) Bantam patchbay.
6. What would you need to do in order to turn your setup into an XY pair?
7. Identify the stereo mic configurations that the other groups have set up (take some notes below).
8. *After* all groups have completed patching, engage phantom power on the preamp (if needed) and set the gain to a reasonable level.

3.2 Group B: ORTF

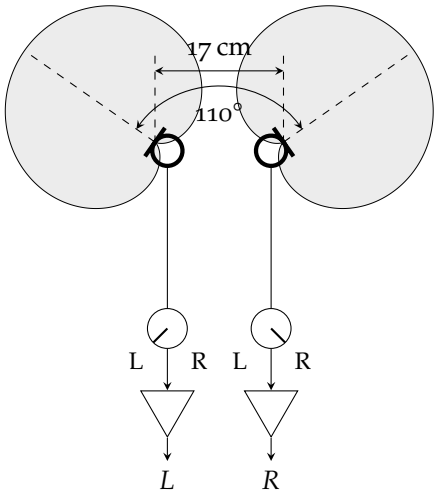

Figure 2. ORTF stereo recording technique

1. Set up an ORTF pair with small diaphragm condensers.
2. Use the only suitable mic model that the MOSS provides for this scenario.
3. Is there a stereo bar available in the MOSS that allows you to place both mics on the same mic stand? What else is needed to achieve this?
4. Patch the mics into the topmost suitable preamp that allows you to equalize the mic signals with a variety of filter bands while recording. Use the first input channel for the left mic, and the second input channel for the right mic.
5. Identify the correct channel on the XLR patchbay to patch the mic into, such that you will not need to use any patch cables on the primary (half-normalled) Bantam patchbay.
6. Which other condenser mics in the MOSS (regardless of diaphragm size) could you have used to set up an ORTF configuration?
7. Identify the stereo mic configurations that the other groups have set up (take some notes below).
8. *After* all groups have completed patching, engage phantom power on the preamp (if needed) and set the gain to a reasonable level.

3.3 Group C: AB

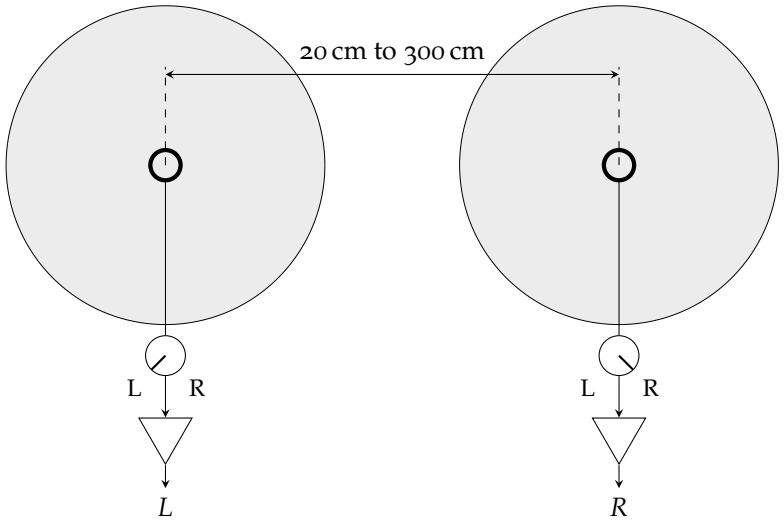

Figure 3. AB stereo recording technique

1. Set up an AB pair with small-diaphragm omnis spaced at $d = 30\,\text{cm}$.
2. Use the only suitable mic model that the MOSS provides for this scenario.
3. Is there a stereo bar available in the MOSS that allows you to place both mics on the same mic stand?
4. Patch the mics into the only 19″/2U preamp that has VU level meters but no on-board EQ or compressor.
5. Identify the correct channel on the XLR patchbay to patch the mic into, such that you will not need to use any patch cables on the primary (half-normalled) Bantam patchbay.
6. Which other mics in the MOSS (regardless of diaphragm size) could you have used to set up an AB configuration?
7. Identify the stereo mic configurations that the other groups have set up (take some notes below).
8. *After* all groups have completed patching, engage phantom power on the preamp (if needed) and set the gain to a reasonable level.

3.4 Group D: XY

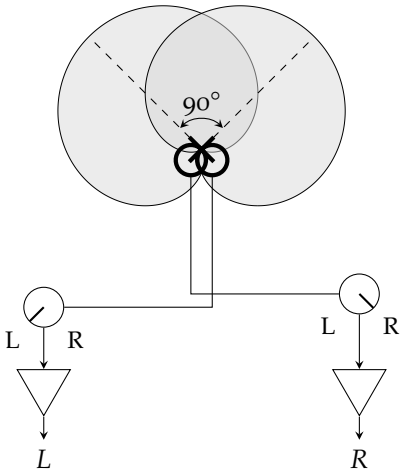

Figure 4. XY stereo recording technique

1. Set up an XY pair with small diaphragm condensers.
2. Use the only suitable mic model that the MOSS provides for this scenario.
3. Is there a stereo bar available in the MOSS that allows you to place both mics on the same mic stand? What else is needed to achieve this?
4. Patch the mics into the bottommost suitable preamp that allows you to compress the dynamic range of the signals while recording. Use the first input channel for the left mic, and the second input channel for the right mic.
5. Identify the correct channel on the XLR patchbay to patch the mic into, such that you will not need to use any patch cables on the primary (half-normalled) Bantam patchbay.
6. Why can you not use this setup as a Blumlein pair?
7. Identify the stereo mic configurations that the other groups have set up (take some notes below).
8. *After* all groups have completed patching, engage phantom power on the preamp (if needed) and set the gain to a reasonable level.

3.5 Group E: M/S

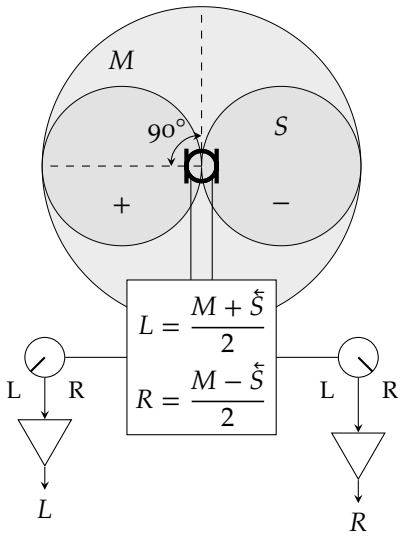

Figure 5. M/S stereo recording technique

1. Set up an M/S stereo pair with identical microphones, using an omni for the M channel.
2. Use the only suitable mic model that the MOSS provides for this scenario.
3. Which options do you have for setting up the microphones?
4. Patch the stereo pair into a suitable preamp, such that the M/S signals can be decoded to L/R while recording.
5. Identify the correct channel on the XLR patchbay to patch the mic into, such that you will not need to use any patch cables on the primary (half-normalled) Bantam patchbay.
6. Which information from the preamp's manual are you lacking to be sure that you are setting up the M/S configuration correctly?
7. Identify the stereo mic configurations that the other groups have set up (take some notes below).
8. *After* all groups have completed patching, engage phantom power on the preamp (if needed), set the gain to a reasonable level, and make sure the M/S decoder is engaged.

References & further reading

Ariza, Christopher (2012a). *Moss inventory*. Available at: MIT Learning Modules ▸ Materials.

— (2012b). *Moss schematics*. Available at: MIT Learning Modules ▸ Materials.

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