

Recording Your Band

Lincoln Center Jazz Orchestra (LCJO) Recording Techniques

An explanation on the process by Sandra Palmer Grassi
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“We focused on the recordings as being the culmination of the entire project. We had many moments when this group of 16-18 year-olds sat quietly for long periods and listened to each other and responded with the very mature subtleties that the music encouraged.”

David Faires, Director, Lone Peak High School, Highland, UT

Microphones and Placement

This year's LCJO CD was recorded using simple or "minimalist" microphone techniques. Our goal was to capture the energy as well as the balance and musicianship of the LCJO as it was on that afternoon in May.

The overall sound of this recording came from three omnidirectional microphones. We used Neumann M150 mics; these pick up sound from all directions, but emphasize frequencies above 1 kHz, which come from directly in front of the mic itself. These microphones were placed to capture each of the primary elements of the big band - rhythm, brass and reeds. Please refer to the stage plot used in this recording, designed with this microphone technique as well as historical Ellington Orchestra stage configurations in mind.

For mic placement, measure the width of the section and place the mic a distance of one half the section width away from the center musician in that section. For example, if the reed section is sixteen feet wide, place the microphone eight feet away from the center reed player. A good starting microphone height would be six feet. Adjusting the height of the microphone is often all that is necessary to find the perfect sound. Also note that we asked musicians to stand during solos to differentiate their sound from the section and to make them more prominent in the instrument balance overall without the need for individual microphones.

We did use a hand held vocal mic (Shure SM58) on this year's vocal selection to make sure the lyrics could be clearly understood. We also placed spot mics on the piano (AKG 414), the bass, (B&K 4011) and the snare (B&K 4007) but these were used sparingly in the mix to improve the definition of their sounds. In venues that compliment the sound of a big band, the use of this microphone technique can, in many cases, eliminate the need for any artificial reverb or processing. It provides an accurate picture of the performance —allowing the true orchestral balance and musicianship to shine through.

Artificial Recording Techniques

The use of artificial recording techniques is strongly discouraged so that an accurate assessment of the band can be obtained. If a digital reverb unit is used to make a vocalist or musician sound better than they really are -to gloss over bad intonation or to smooth out an otherwise awkward balance - then that would be an artificial technique. It's no different than using ProTools to edit between takes or repair intonation. Using reverb or EQ to do justice to the orchestra is a far different thing than using outboard gear to enhance or alter the actual performance. Duke Ellington's orchestra didn't use reverb because they needed to distract the listener from a bad performance, but to make you forget the fact that you were sitting at home listening to a record and not experiencing the performance live. It's not a question of capturing room tone or whether or not their recording space has a lot of natural reverb - it's about demonstrating performance ability and giving the most accurate portrayal of the music as it was played. *The whole point is to not give a false impression of the band-one they couldn't live up to in person.*

