

Xtreme vocal miking—8 voices, 17 mics

By Lorenz Rychner

New York-based Pieces of 8 is the creative love-child of composer and arranger Charles Mead (that doesn't begin to sum up his résumé but shall suffice for now) who writes all the music for the group. His idiosyncratic voice leadings and frequently advanced harmonies demand a lot from the singers, as do the dynamics in his charts. Technically it is an a cappella group; the voices are two sopranos, two altos, two tenors, a baritone, and a bass.

A *cappella* means unaccompanied choral singing. The Italian term really means "chapel-style" and comes from the tradition where choirs in the side-chapels of cathedrals sang without the organ's accompaniment.

To capture a cohesive and well-balanced choir it often suffices to put up a judiciously-placed stereo pair of mics that have good reach. But traditional choir-miking techniques don't apply when you have Pieces of 8—eight unaccompanied singers—in the studio, each used to performing with his or her own mic, sometimes handheld, sometimes on a stand. Add to that some well-rehearsed body noises—handclaps, fingersnaps, thighslaps—and the need for eye contact and proximity without undue phasing or bleed, and you're entering specialist territory.

Robert Harari owns and runs Harariville Studios in Weehauken, NJ, just across from Manhattan. The history of his studio will be the subject of an article in an upcoming issue. After we visited the Pieces of 8 sessions, we put these questions to Rob.



Pieces of 8 at Harariville (photo: Lorenz Rychner)

Rear (L-R): Mandy Linden (soprano), Kevin Manning (baritone), Clayton Cromley (bass), Angie LeMar (alto), Wendy Whitby (alto), Christopher Lewis (tenor), Kelli Shrewsbury (soprano), José Snook (tenor), Jamie Bright (studio intern).

Front (L-R): Robert Harari (Harariville Studios), Claudia Marx (producer, president of Town Crier Recordings), Charles Mead (artistic director, composer).

How did you approach tracking this unusual vocal group? Did you think choir, chamber-music octet, or what?

As a music student, in high school and college, I sang in choirs, Madrigals and secular music. I always approach the recording process from what the musicians are hearing. Their performance is based on what they are used to in a performance space, and once in the studio, everyone adapts to the environment. I set them up in a circle so

that each mic would have the best possible rejection from the other singers. It also allowed for great visual communication between the eight for conducting, starts, cut-offs and trading solos.

The only preconception I brought to the studio was to be sure that the voices recorded as naturally as possible so that you feel you're in the room with the singers. From that starting point, you can achieve anything you sonically want in the mix.

What mics were on which voices, and why these choices?

Neumann U 87s on the sopranos, Neumann M 127s on the altos, Sennheiser MKH 800s on the tenors and Neumann M 149s on the baritone and bass.

A cappella singing is very dynamic, and Charlie's arrangements really stretch his singers' limits, they're very complex and broad in range. I used the U 87s on the sopranos because of the smoothness of the high end. The sopranos at times had to sing at the top of

their registers, high amplitude. I found the M 127 to be full and rich on the altos.

Sennheiser sent over the MKH 800s to try out. I was really impressed with their versatility. I ended up enjoying the punch they gave to the tenors. I didn't need to use the 8 kHz boost

switch on the mics because of the brightness of the singers' voices, but I did use the highpass filters to limit some of their neighbor's (bass) from the signal. I went with the largest-diaphragm mic I own for the bass and baritone. It's a lot easier to roll off bottom than to try to equalize it in.

Couldn't really go wrong there.

I also used a Sony stereo microphone with a 120 degree dispersion 14 feet in the air, pointing down to the middle of the circle. It gave me a beautiful stereo image from above.

What additional mics were there for body percussion, and placed how?

The body percussion mics were really meant for clarity on finger snaps and clapping. I had to be careful not to introduce phasing and imaging problems by having so many microphones placed so closely together. I angled the body mics away from the mouth, shooting down towards the belly button. These mics included three Sennheiser MKH 40s, four Oktava MK012s,

pieces of 8 *an a cappella journey*
across the blue meridian

New lyric by
JON HENDRICKS
World Premiere
recording!

The album cover features a group of eight singers (four men and four women) smiling and posing together. The background is a scenic view of a body of water under a blue sky with white clouds. The title 'pieces of 8' is in a red box, and 'an a cappella journey' is in yellow. Below the title, 'across the blue meridian' is written in red script. At the bottom left, it says 'New lyric by JON HENDRICKS World Premiere recording!'.



and one AKG C 414. The bass singer really drives the rhythm in this kind of singing, so he often conducts as well. He had the 414 to capture a full frequency response on whatever he was doing.

In the studio the singers stood in a circle. This worked for them—they could all see each other, but some turned their backs to you in the control room? Problems?

I didn't need to see everyone. We were following the score in the control room, so I knew what to expect from whom. Claudia Marx, the producer [*herself an experienced singer and the head of the label Town Crier Recordings.—Ed.*] and Charlie had the most contact with the singers while the red lights were on—his arrangements and their vision. Besides, you can tell a lot from body language.

Was there bleed during tracking? If yes, how did you deal with it?

Having lived through the eighties with the excessive need for isolating

everything that went to tape, I loved the bleed. I believe that players need that level of communication that glass walls kill. It often is the difference between a good take and something magical. With a recording like this, the group really had to sing well together. If there was a blatant mistake, we did it again.

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What was the signal chain during tracking?

Mics to the mic preamps on my Mad Labs Neve VR60. Little compression and little or no equalization. Some limiting on the soprano mics through

a Drawmer 1960, and a Summit TLA-100 on the Bass. Direct out of each channel into Apogee AD-8000 converters for a 24-bit/44.1 kHz recording. Every mic tracked separately to a Mac G4 running Logic Pro.

How did you approach the mix—tonally?

When the group was warming up or rehearsing a number, I would go into the live room and stand in the middle of the circle, close my eyes and listen. I would go back into the control room and then try to make that sound happen.

When you're singing on a bandstand, you have to listen to your neighbors and balance yourselves. Although they used headphones on one ear, they always heard each other acoustically as well.

Charlie helped out on balances between parts if I missed something. It was recorded very, very cleanly, providing us with flexibility in the mix.



How did you approach the mix—dynamically?

I still believe in dynamics in recording. There are times to slam the compressor to get the hottest CD out there; this wasn't that time. The energy of these singers would be lost with over-processing. I used a Neve stereo compressor for summing and the NTI eQ3 for a touch of air in the eq, to capture the upper harmonics of the voices without making them sound harsh.

I mixed to 1/2" tape for the warmth and that beautiful thing only tape does to smooth out harmonic inconsistencies. I had a plus 9 over 185 nWb alignment, so I hit the tape pretty hard to limit the signal-to-noise ratio. There were some very soft moments in the arrangements and I didn't want hiss in the way. The tape ran at 30 inches per second with no noise reduction. I used automation on the console and also some automation in the sequencer.

Even though you do everything you can to capture a performance, you are still capturing it through something mechanical. You have to use your tools to bring that real life energy back through the speakers.

How did you approach the mix—spatially? Any thoughts about a future 5.1 remix?

Absolutely. 5.1 would be perfect for a project like this one. You could stand in the middle of the circle and be enveloped by their sound. Spatially, I was very aware of their positions in the circle. With that said, I made that work to our advantage. Contemporary production, what consumers are used to hearing, bass up the middle, tenors on one side, altos on the other and sopranos splitting center wide. In a small hall.

Many a cappella records go heavy on the reverb. I wanted to maintain an intimacy between the vocalists and the listener, so that if you were listening late at night in a quiet room, they were there with you. If you put it on in a big space, the room provides the reverb so you feel that Pieces of 8 is performing a concert there in that room. We did get to play with exotic environments on a tune or two.

How did you deliver the mix to Claudia for mastering, and how did you archive the project?

Tapes went to the mastering engineer with a AIFF data disk with the files transferred from the tape as backup. All the Logic Pro session files and audio files were backed up onto two sets of DVDs.

Looking back, how would you sum up the experience?

I had a lot of nice gear to play with for this recording, but ultimately it was mic placement, clean signal path and understanding the musicality of the project that made it a successful recording session.

We thank all the participants in this project for their cooperation, and we wish everybody great success with the CD that will be released in September 2004 on the Town Crier label.



For more information, please visit www.piecesof8.info, www.harariville.com, www.towncrierrecordings.com, and Charlie Mead's site at www.purplerobin.com.

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