

## **Surround Capture (5.1) : Bradshaw Piano**

For the sound capture in 5.1, Grand Piano was played by a Ph.D student Salome Chitaia.  
Engineers: Amanda Dsouza and 2 other engineers.

The session took place in Bradshaw Hall, Royal Birmingham Conservatoire at 12:00 pm till 5:30 pm.  
The pianist played 2 pieces which she needed to record for a competition.  
Two full takes were taken and then some parts were recorded separately to replace where corrections  
were felt necessary; all on the same track.

Altogether, seven microphones were used:-

- Soundfield
- Two AKG 414
- Four Rode M5

SoundField:



AKG 414:

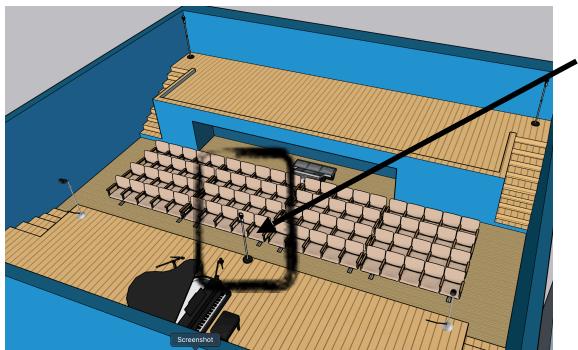


Rode M5:



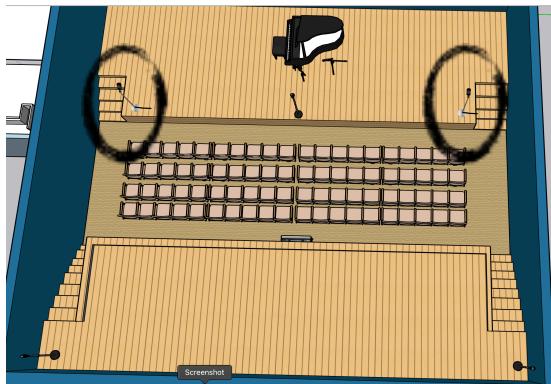
The microphone placement can be seen below in the pictures created by using sketch-up application that replicates the actual Bradshaw Hall where the recording was captured:

Overall View



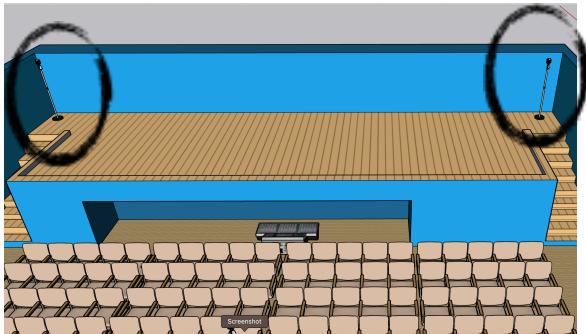
The sound field was place right in the middle capturing left, right, rear left and rear right (quad)

Top view



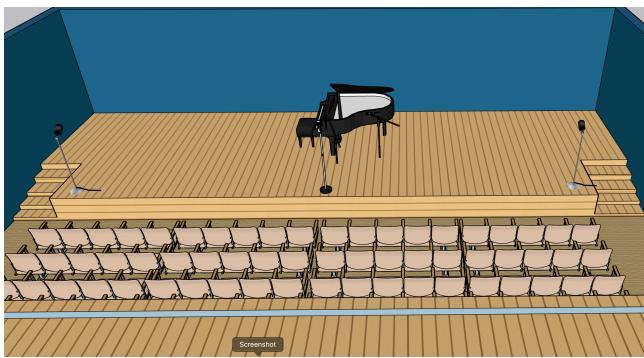
The two AKG 414 were placed left and right of the hall in the middle

### Rear-back view



Two of the Rode M5s were placed at rear back mainly capturing the ambience.

### Front view



### Piano view



And other two Rode M5s were placed close to the Piano's treble string side. The strings and soundboard yielded a bright and relatively natural tone.

The height of the mic stand was adjusted more or less around 3-3.5 metres except the two Rode M5s placed near the piano. They were adjusted to a height of around 1-1.5 metre.

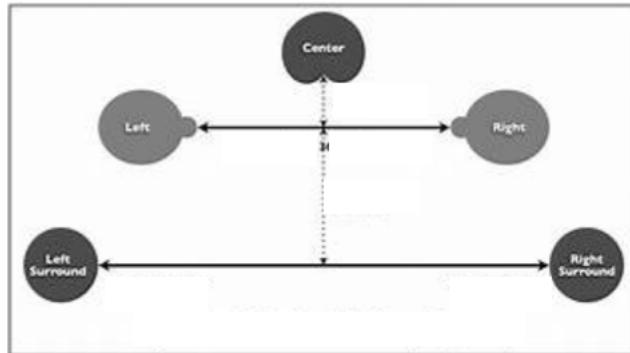
The second take was chosen for the final mix. There wasn't any need for replacing the mistakes since the pianist played flawlessly and the minor mistakes she did weren't that prominent.

While mixing, the piece was improvised at various places ( by trimming and joining different parts appropriately). Next, silences were trimmed and cut and necessary fade in and fade out were made.

Initially, the whole recorded piece was eight minutes long and but after the final mix was trimmed and cut, the duration was 4:07.

By simply panning the Rode M5 mics (placed at the rear end Ls and Rs) to the rear of the soundscape, the overall ambience was made to come alive in the mix, giving an added sense of space to the piano recording(*Modern Recording Techniques, 9th Edition*).

The technique considered in capturing the surround recording was based on Surround Decca Tree (most of it) with the soundfield in the central middle as seen in earlier pictures.



The tracks were auto panned numerous times, especially when there were scales being played. For example, in a scale going up, All the tracks panned in Left (front and back) were auto panned in a manner where they went from left to right. Also same goes for the scales going down.



