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### The Innovation of “Sgt. Pepper’s Lonely Hearts Club Band” Album

Prior to the 1960s, music was generally recorded “in the moment” and sounded as if the band were performing at a live show. Later in the 1960s, music experienced a radical development as its production began to incorporate “sonic realities [that could exist] only on recordings” and “could not... be duplicated “live” on stage.”<sup>1</sup> In particular, The Beatles construction of the “Sgt. Pepper’s Lonely Heart Club Band” album was a production that couldn’t be reproduced live on stage. In the creation of the “Sgt. Pepper” album, The Beatles strayed from the normal recording model. In particular, The Beatles were not limited by time, which gave them the freedom to be extremely creative. In their quest of creating a unique sound, the making of the album didn’t always follow the normal studio procedures and also incorporated layers of various instruments that were not normally used in a rock ‘n roll album, making it difficult to perform live. The “Sgt. Pepper” album also featured innovative recording techniques that helped realize the band’s goal. In the “Sgt. Pepper” album, The Beatles strayed from the normal recording model and created a sound that was more a product of the recording studio than of a live performance.

Before The Beatles’ “Sgt. Pepper’s Lonely Hearts Club Band” album, the recording procedures were very minimalistic and allowed no room for creativity. Traditionally, the typical set up of a recording session required that the players be placed in front of

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<sup>1</sup> Jerry Zolton. “The Beatles as Recording Artists.” In *The Cambridge Companion to The Beatles*, edited by Kenneth Womack, (Cambridge University Press, 2009), 34.

microphones. Also, there was a strict standard setup for how the microphones should be positioned for every type of session, even though each individual session is different.<sup>2</sup> At the time, the recording philosophy was to record the talent as if they were performing live on stage. As a result, the performance was captured all at once and the piece was played the entire way through as many times as necessary until satisfying results were achieved. Another idea at the time was that recordings were completed in a linear fashion, finishing one song before moving on to the next. In this old recording model, the producers and the technicians had the authority over the final sound, and not the musicians. Also, recording was done very quickly because studio time was expensive. For example, typically at Abbey Road Studios, where the Beatles recorded, an album was completed in a week.<sup>3</sup>

One factor that allowed the Beatles to stray from the old recording model in the “Sgt. Pepper” sessions was that they were not limited by time. Prior to the “Sgt. Pepper” album, touring created deadlines for the band’s recordings and restricted their creativity because the band did not have time to experiment. However, because of many different factors, the Beatles decided to stop touring. But, one of the main factors for why they stopped touring was because it had become extremely painful as a result of “Beatle mania.” For example, the Beatles were so popular that when they toured, the audiences screamed so much that the Beatles could not even hear themselves play.<sup>4</sup> To make matters worse, the crowds at the shows began to get rambunctious; such as at San Francisco’s Cow Palace where the show had to be stopped twice because fans were throwing jellybeans at the Beatles.<sup>5</sup> As a

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<sup>2</sup> Geoff Emerick and Howard Massey. *Here, There and Everywhere*. (Emerick Softpaw Productions Inc. and Howard Massey 2006), 137.

<sup>3</sup> *Ibid.* 141.

<sup>4</sup> *Ibid.* 132.

<sup>5</sup> Zolton, *The Beatles as Recording Artists*, 42.

result of their bad experience with touring, the Beatles really wanted to settle down and record an album.

When the album was created, it completely strayed from the traditional studio procedures in order to create a new sound. For example, moving the microphone was against the rules because it varied from the “template” for that particular type of session. But, recording engineer Geoff Emerick sometimes repositioned the microphones and did what was necessary to capture the “right” sound. Another variant off the norm was that the “Sgt. Pepper” album was recorded in layers, which included double tracked vocals and even piano overdubs. Piano overdubs are when the piano parts are laid over the current existing material. Also, the songs were not completed in a linear fashion. In fact, the Beatles worked on songs and then came back to them on a later date, particularly in Strawberry Fields Forever. In this song, rhythm guitarist and composer John Lennon did not like the sound of the track and said that it needed to be “heavier.”<sup>6</sup> So, bassist Paul McCartney came up with the idea to add orchestral instrumentation, resulting in the re-recording of the song. On another track, called “A Day in the Life,” the Beatles weren’t satisfied with it even after the “final element” of the orchestra was added. Lennon wanted something for the dogs to hear, so a 15 kHz (kilohertz) tone was inserted into the song.<sup>7</sup> A 15 kHz tone, or 15,000 cycles per second tone, is a very high-pitched sound that is near the top of the general human hearing range, which dogs can hear better than humans. The “Sgt. Pepper” album also differed from normal procedures as The Beatles had a say over the final sound. This idea is very evident in their recordings as The Beatles had specific requests for the engineers. For example, in the song Penny Lane, composer Paul McCartney

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<sup>6</sup> Emerick and Massey, *Here, There and Everywhere*, 138

<sup>7</sup> Zolton, *The Beatles as Recording Artists*, 53.

wanted what he called a “clean, American sound.”<sup>8</sup> So, engineer Geoff Emerick recorded each instrument separately to prevent any bleed. As a result of not following the traditional studio procedures, The Beatles were able to create a different type of sound in their album that was a product of the studio.

The Beatles were so successful that the cost of studio time was not an issue, resulting in no time constraints for recording the album. Time was expendable to The Beatles, which allowed them to experiment and develop a new sound that could not be performed on stage because of the complex elements involved its creation. For example, their first session lasted eight hours, in which they only completed one take that they ended up not even using. Another is example is that Emerick said that an “excess of thirty hours [went into the] recording of the remake” of the song “Strawberry Fields Forever.”<sup>9</sup> There were no time constraints because The Beatles could afford to be in the studio for long periods of time. For example, the entire “Sgt. Pepper” album took six months to complete and cost \$138,000, in 1967.<sup>10</sup> Since The Beatles could afford the price of booking Abbey Road, there were no time boundaries in the creation of the “Sgt. Pepper” album.

In the creation of the “Sgt. Pepper” album, The Beatles incorporated instruments that were not typically found in rock recordings, giving the music a new texture and making it impossible to play live; because there were so many instruments involved. The Beatles were so popular that they had access to the newest instruments, such as the Mellotron.<sup>11</sup> The Mellotron is an instrument where every key triggers a tape loop of a real instrument: such as a flute, choir, or strings. The Mellotron can be heard in the opening line

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<sup>8</sup> Emerick and Massey. *Here, There and Everywhere*, 142

<sup>9</sup> Emerick and Massey. *Here, There and Everywhere*, 138.

<sup>10</sup> Zolton, *The Beatles as Recording Artists*, 50.

<sup>11</sup> *Ibid.* 135.

of “Strawberry Fields Forever.” Other unconventional instruments used in the recording of “Strawberry Fields Forever” include a plucked piano and even backwards cymbals. The Beatles incorporated a large number of instruments in their recordings; such as in a song called “Penny Lane,” where producer George Martin’s arrangement included flutes, trumpets, a piccolo, a flugelhorn, oboes, an English horn, and a bowed double bass.<sup>12</sup> Another example of a large addition of instruments to the song arrangement is when an orchestra is used in the song, “A Day in the Life.” The layering of all of the various instruments in their songs made it impossible to play live on stage because there were so many musical parts.

In their “Sgt. Pepper” album, the Beatles had their eyes set on creating a sound that was completely new and that couldn’t necessarily be played live. John Lennon said, “if we don’t have to tour, then we can record music that we won’t ever have to play live, and that means we can create something that’s never been heard before.”<sup>13</sup> For example, the Beatles wanted to add a new dimension to their songs, such as when John Lennon wanted “Being for the Benefit of Mr. Kite” to sound like a circus. In order to achieve the desired effect, Emerick cut up sound samples of cheers and crowds, rearranged them, and inserted them into the song. In another song called “A Day in the Life,” Emerick recorded the Beatles saying random words in the studio. Later, he picked a section that the Beatles liked, looped it, and then placed it in the song. But, some of the new sounds the Beatles used served a purpose. McCartney’s voice on “A Day in the Life” is meant to convey the lyrics of waking up in the morning.<sup>14</sup> His voice was altered using an equalizer to make it

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<sup>12</sup> Ibid. 144.

<sup>13</sup> Ibid. 132.

<sup>14</sup> Emerick and Massey. *Here, There and Everywhere*, 152

sound fuzzy, like he had just woken up. The Beatle's eye for creativity led them to request for unique parts in their recording, which added a new dimension to their music. As a result of being a product of the studio, that new dimension could only exist in the album and not on stage.

In the "Sgt. Pepper's" album, engineer Geoff Emerick used many state-of-the-art techniques in order to rise to the constant challenge of pleasing The Beatle's desire for new sounds. For example, it was up to Emerick to satisfy Lennon's desire to create a sound that had never been heard before. In the "Sgt. Pepper's" session, Geoff Emerick was asked to do the impossible and the "word "no" did not exist in The Beatle's vocabulary."<sup>15</sup> For example, after recording two separate versions of Strawberry Fields Forever, Lennon wanted to use the beginning of the first version and the rest of the second. This was a problem because the two versions were recorded at different tempos and pitch, so they did not match up. In order to solve this problem, Emerick sped up and slowed down the analogue tape that the recordings were on in order to get them to match. Next, to combine the two tapes together Emerick needed to find an edit point, which is a place where he would cut the tapes and join them. In order to connect the two tapes without making the edit noticeable, he placed them together in a much shallower cut than the normal 45 degrees, resulting in a longer crossfade.<sup>16</sup> This meant that the two versions of the song increased and decreased in volume at a slower rate than usual. John liked the result and could not even notice the edit. The studio techniques Emerick used made the Beatle's dream of creating a unique sound become a reality.

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<sup>15</sup> Emerick and Massey. *Here, There and Everywhere*, 138.

<sup>16</sup> *Ibid.* 140.

Emerick used a lot of other innovative techniques in order to make the recording of “Sgt. Pepper” possible. For example, Emerick had to work with a four-track tape machine at Abbey Road Studios. In order to have access to more than four tracks in the final mix, once all tracks on the machine were full, Emerick set their levels and then bounced them down to a single master. The procedure was then repeated until the machine’s tracks were full again. This type of procedure allowed for sounds to be layered for more dimensionality. However, a consequence of using this procedure was that noise was induced into the recording. To solve this problem, Emerick used a Dolby Noise Reduction system that allowed him to layer tracks together with more clarity.<sup>17</sup> Also, Emerick used the resources available to further alter the sound. On “When I’m Sixty-Four,” Paul told Emerick to speed up the track on the tape machine to almost a semitone, which raised the pitch and made the track appear to have a faster tempo. As a result of this technique, Paul’s voice appears to be like the youthful teenager that he was when he first wrote the song. Some other effects that were implemented on the recordings include phasing and flanging. Phasing is very evident in “Being for the Benefit of Mr. Kite” and flanging can be noticed on George Harrison’s guitar solo in “Fixing a Hole.” Another technique implemented was the idea of a direct input. In order to achieve a cleaner sound on McCartney’s bass, a direct out of his bass was routed directly into the console instead of into an amplifier. According to Abbey Road engineer Ken Townsend; this was the first time a direct input was used in the world.<sup>18</sup> The techniques that studio engineer Emerick applied directly characterized the sound; it couldn’t be performed on stage.

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<sup>17</sup> Zolton, *The Beatles as Recording Artists*, 51.

<sup>18</sup> *Ibid.* 51.

The Beatles were very committed to making unconventional sounds, which ultimately were a product of the studio. Emerick said that there was “no comparison to anything that had ever come before” and that they “were blazing new trails in recording.”<sup>19</sup> As a result of this thinking, various recording techniques were implemented in order to alter the sound. For example, the recording tape could be sped up or slowed down in order to make the vocals sound thicker. This technique dealt with manipulating the varispeed control on the tape player and was used to get a different sound on Lennon’s vocals in Strawberry Fields Forever. The Beatles didn’t want anything to sound real. For example, when they played the piano; they didn’t want it to sound like a piano. This idea can be noticed in Paul’s vocals on “A Day in the Life” where Emerick made his vocals sound muffled by taking a lot of treble out of the voice and compressing the track. Also, The Beatles made use the idea of comping, in which the best lines of each track were “bounced” over into one track, resulting in a compilation of the best sections. For example, there was a piece in the middle section of “A Day in the Life” that Paul liked, so they used that in the final take.<sup>20</sup> Another example of altering the sound in the song “A Day in the Life” is when Ringo Starr wanted more tonal quality in his drums so that they could stand out. Emerick then had Starr tighten his tom tom drums and added some low end on the console. Next, he over limited the drums and as a result, the cymbals sounded huge.<sup>21</sup> Ringo was very happy with the final crafted sound. As a result of the manipulation of the sound in the studio, the album was more a product of the studio than of a live performance.

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<sup>19</sup> Emerick and Massey. *Here, There and Everywhere*, 145.

<sup>20</sup> Emerick and Massey. *Here, There and Everywhere*, 148

<sup>21</sup> Ibid. 149.

The Beatles strayed from the normal recording model in their “Sgt. Pepper’s” and created a product that was more of a creation of the recording studio than of a live performance. In the creation “Sgt. Pepper” album, The Beatles didn’t follow traditional recording standards. By not being limited by time, they were able to be extremely creative and produce a new sound. In order to achieve such results, The Beatles strayed from traditional studio procedures and even incorporated layers of unconventional instruments, making it impossible to reproduce live. The “Sgt. Pepper” album also featured many studio techniques that helped characterize the sound. As a result, The Beatles were able to accomplish their goal of creating a unique sound in the “Sgt. Pepper’s Lonely Heart Club Band” album that was more a product of the studio than of a live performance.

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