The Beatles as Recording Artists

When The Beatles – John Lennon, Paul McCartney, George Harrison, and Pete Best – recorded their first tracks as professionals in Hamburg, Germany in June 1961, the "art" of electrical analog recording was essentially as it always had been. Basically, the players positioned themselves in front of microphones and performed as if they were live on stage – except there was no audience. Only present were producers, technicians, other musicians, and onlookers. The performance happened all at once, everyone playing the whole way through and as many times as it took to get it "right." And in the end, it was the producers and technicians, *not* The Beatles, who had control over the final sound, what listeners heard when the record was played.

As to the songs, half The Beatles recorded that day were curiously archaic, "Ain't She Sweet," "My Bonnie," "When the Saints Go Marching In," "Sweet Georgia Brown," all throwbacks to a previous generation, as were, for that matter, the circumstances of the session itself. Pete Best said he was taken aback by the makeshift "studio." "We wondered if we had come to the right place. We had been expecting a recording setup on the grand scale...Instead, we found ourselves in an unexciting school gym [actually, Friedrich Elbert Halle] with a massive stage and lots of drapes." (Pawlowski, *How They Became The Beatles*, 36)

Did those initial recording forays significantly advance the artistry or career of The Beatles? Other than getting a foot in the door, decidedly not, reported Paul and John with characteristic cheekiness in their first ever 1962 radio interview:

> Paul: ...We made a recording with a fella called Tony Sheridan. We were working in a club called "The Top Ten Club" in Hamburg. And we made a recording with him called, "My Bonnie," which got to number five in the German Hit Parade."
>
> John: Ach Tung!
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> Paul: (giggles) But it didn't do a thing over here, you know. It wasn't a very good record, but the Germans must've liked it a bit. And we did an instrumental which was released in France on an EP of Tony Sheridan's, which George and John wrote themselves. That wasn't released here. It got one copy. That's all, you know. It didn't do anything.
> (http://www.geocities.com/~beatleboy1/db.menu.html, Beatles Ultimate Experience, First Radio Interview, 10/28/62)

John Lennon was acerbically candid about it with Beatles biographer Hunter Davies. "When the offer came, we thought it would be easy. The Germans had such shitty records. Ours was bound to be better. We did five of our own numbers, but they didn't like them. They preferred 'My Bonnie Lies Over the Ocean.' " (Davies, *The Beatles*, 107)

A year or so later, The Beatles – Ringo Starr now in place of Pete Best – teamed with producer George Martin on a run of LPs that had a profound impact on pop music worldwide. The earliest collaborations, though conventionally recorded, were catchy, smartly arranged pop hits. Then, in a succession of mid-Sixties studio-savvy albums that peaked in 1967 with *Sgt. Pepper's Lonely Heart's Club Band*, The Beatles and George Martin entered rarified territory, and in the process, played an incisive role in revolutionizing the art of studio recording. Certainly flashes of things to come pre-dated The Beatles, not only in American rhythm & blues and rock 'n' roll, but in earlier genres with a handful of studio wizards pointing the way. So, who were these "wizards" and what exactly did they do? A sidetrack into the evolution of recording artistry...

From the get-go, the technology of recording had a de facto impact on music. Essentially, the invention of sound recording by Thomas Edison in the late 1800s introduced an entirely new way to hear music. Before Edison, musical performance – with the exception of reproducing player pianos – could only be experienced "live" and "in person." Recording, both literally and figuratively, "revolutionized" that experience. Back in the 1920s, Louis Armstrong fans hearing him in person for the first time were initially put off because he didn't sound like his records. In the early 1930s, the buxom "shout to the rafters" style of blues diva Bessie Smith was displaced by sotto voce Billie Holiday, the latter's success dependent on the microphone to capture and convey her intimate sound. Crooner Bing Crosby, noted his biographer Gary Giddins, "understood the microphone, and that electricity paradoxically makes music more rather than less human; because you don't have to shout, you...can now sing in a normal tone of voice." (As quoted in David Simons. *Studio Stories*. San Francisco, Ca: Backbeat Books, 2004. Pg 18) In the days of 78-rpm records, even the duration of a performance – three minutes – was dictated by the limits of how much could fit on a 10-inch shellac disk.

Now jump to the 1950s and early '60s, the era of American rhythm & blues and rock 'n' roll. A number of producers and musicians, some rockers, others not, began experimenting with the "art" of recording. They recognized that rapidly evolving technologies could be used to create sonic realities existent only on recordings. They produced performances that could not, in fact, be duplicated "live" on stage. Small examples surfaced here and there – echo effects achieved through basement and hallway placement of ambient microphones; the double, even triple-track layering of vocal leads; vocal tracks speeded up to mask intonation problems or, with teen idols

more good-looking than able to sing, stitched together a phrase at a time to create the illusion of continuous performance. Then, capping it all was Phil Spector, his famous "Wall of Sound" achieved through multi-tracking, mike placement, voices as upfront in the mix as loud orchestras and electric instruments, everything awash in a sea of reverberation. Spector was among the first of a new breed of producer, not merely button-pushing dial-turning "techies," but co-creators with musicians in the "art" of recording music. In those early days, Phil Spector's studio ingenuity sparked the imaginations of many in the upcoming generation of rock 'n' roll producers and musicians.

One of those was musician, arranger, and lyricist Van Dyke Parks, visionary producer/performer and collaborator with Brian Wilson on the ill-fated but three-decades-later triumphant *Smile*, a Beach Boys project that Parks maintains had a more immediate influence on The Beatles' *Sgt. Pepper* (1967) than the more generally acknowledged *Pet Sounds* (1966). On his role as a recording arts revolutionary, Parks labels himself "fair game." In talking about his own awakening to studio possibilities, Parks provided a telling overview of those whose earlier inventiveness influenced both the Beach Boys and The Beatles.

"When I entered this business of recording," said Parks, "my first job in town was in 1963 with 'Bare Necessities,' a song from Disney's *The Jungle Book*." Producers and musicians back then, he says, talked about how a room "sounded," meaning the musical sonority inherent in a recording space. In those days, he adds, "the technology of recording was accelerating greatly and quickly."

> ...That was with the advent of "close-miking," where an instrument that you would think in a roomful of sax and trumpets and trombones - big band - would not have been heard. But if you put a mike very close..., their power – the potential for plectrum instruments to be heard above the general roar of full blown instruments – was all a new reality.

Then came a new generation of rockers, studio neophytes, "musicians," says Parks, who "were empowered, politically charged, but generally musically illiterate."

> They didn't come in with charts that were all prepared. They came in with various ideas and generally moved the studio away from the efficiency of a 3-hour session in which maybe three tunes would get done in one or two takes. Dean Martin and Frank Sinatra would say, "That's enough, boys."

Parks offers the example of one track from *Pet Sounds* that cost the Beach Boys

more than $62,000 to record and "took a week or even more of procedural layering...And all with the new real estate of multi-track recording,....but also some understanding about how microphones captured in an intimate way what had never been featured before."

That "understanding" evolved for Parks and his contemporaries from an appreciation of what their predecessors had done in the studio, minor epiphanies at the time, but later, profoundly utilitarian. "I can remember hearing Spike Jones doing 'Cocktails for Two' in 1948," says Parks.

> And what was interesting to me was that Jones had things like bicycle bells and whoopee cushions. Whatever he wanted. Spike Jones would put the sound very close to a microphone...and I thought that was a phenomenon! I recognized that there was something coming through a speaker that wasn't available in a room when I walked into a concert.

Parks also became aware of mike placement and synchronized multi-track recording through the artistry of Les Paul and Esquivel. Les Paul pioneered the layering of vocal parts and guitar lines. "With 'Lover' by Les Paul and Mary Ford," said Parks, "he did...what they called the 'choir of wire,' these triadic guitar lines..., a special sound that he invented for recording...and once again made a step forward. It was stuff I had never heard before. Absolutely changed my perception."

As did Juan Garcia Esquivel, the "King of Space-Age Pop," billed on his records as simply "Esquivel." Parks heard Esquivel in the early '60s when Parks and older brother Carson came to Los Angeles as the "Steeltown Two" to perform folk music. Though middle-of-the-road in style, Esquivel's experiments with two-track stereo were revolutionary. He recorded two orchestras playing simultaneously in separate studios so that in playback one could be heard coming out on the right, the other on the left. "Esquivel," said Parks, "would put *two* mikes in a piano, and so when a piano did a glissando from the bottom to the top of the keyboard, you would hear it pass like a train from left to right. Very imaginative." (Interview by phone with Van Dyke Parks, March, 2007)

The idea to make studio technology part of music artistry, to consciously apply the medium to the message, flowed from these artists as well as the legion of unnamed rock 'n' roll and rhythm & blues producers. Van Dyke Parks, Brian Wilson, and, of course, George Martin and The Beatles were caught up in the swell.

In the mid-1960s, Brian Wilson, like The Beatles, was enchanted with studio technique. His influential album *Pet Sounds* (1966) was famously characterized as "richly

textured, multi-layered, and inventively arranged." *Pet Sounds*, says Wilson, was inspired by The Beatles earlier *Rubber Soul* (1965), affirming the rivalry that existed between the two groups during this peak creative period. On *Pet Sounds*, Wilson supplemented rock 'n' roll's conventional guitar-bass-keyboard-drum with full orchestration and a Spike Jones ragtag of "accordion, theremin, bicycle bells, kazoo, banjo, glockenspiel, and even barking dogs and a Sparklett's water jug," setting the stage for the even more sonically ambitious *Smile*. (http://www.brianwilson.com)

Smile was intended as the follow-up to *Pet Sounds*, and writing and recording began in August, 1966. The eventual collapse of the project became the stuff of pop music lore, which is why the re-imagining and completion of *Smile* by Wilson and Parks in 2004 attracted significant attention...and prompted Wilson to comment retrospectively on his then sense of rivalry with The Beatles as well as this about the influence of Phil Spector. "...What I learned from Phil Spector," said Wilson, was "to make songs echo..., to combine piano and guitar to make one sound. Combine horns and strings to make another sound, strings with voices to make a sound. There's all kind of possibilities in the studio." (http://www.avclub.com/content/node/40133/2)

The Beatles carried forward those same canons, as did Van Dyke Parks on his own solo recording project, *Song Cycle* (1968). The important point here is that for all of them, technology was not evoked merely as gimmick, but rather as application that contributed to the music's ability to convey meaning and provoke emotional response. "When I got into the position of actually...being in charge of how studio results appeared on a record," Parks said, "I was absolutely fascinated by it."

> ... All of those things to me were not just trivial or prosthetic pursuits, but could maybe even bring some emotional value to music in new ways and mean something. ...I plunged right into *Song Cycle*...and I went hog wild...They should have called it *Song Psycho*...In fact, when I took it to the company president, he said, "it's a very nice title...but where are the songs?" I forgot to include them!
>
> But I did prove that I was a fanatic, obsessed about studio procedures. I think I did a lot to advance a kind of a sound which would be unavailable in performance, and something different... So honestly, I've got to admit I happened to be at the right age at the right time and in the right place to benefit fully from studio technology at the apogee of analog recording. It was the luck of the draw. (Parks phone interview, March 2007)

As it was for The Beatles. Skip back a few years to October, 1962 and their first venture into EMI's London-based Abbey Road studios with George Martin, the result a debut British single, "Love Me Do"/"P.S. I Love You." Though Martin was more impressed

with The Beatles' charisma than their early material, [*Mojo* interview, 2007, 37] the record was surprisingly a modest hit, enough to merit a follow-up, the second Beatles hit, "Please Please Me"/"Ask Me Why," produced a month later in November.

The UK success of these four original Lennon-McCartney 45-rpm singles prompted the recording of The Beatles' first British 33 1/3 "long playing" album, *Please Please Me*. The ten additional tracks filling out the album were recorded in a day's time at a marathon session in February, 1963, the LP released in March on Parlophone. The Beatles had produced four hit singles and an album in the space of six months.

Almost half of the debut album's tracks – "Anna," "Chains," "Boys," "Baby It's You," "A Taste of Honey," and "Twist and Shout" – were covers of American rock 'n' roll "B" sides. The new originals were "I Saw Her Standing There," "Misery," "Do You Want to Know a Secret," and "There's a Place." "The whole album only took a day," said Paul McCartney, "so it was amazingly cheap, no-messing, just *massive* effort from us...We started at ten in the morning and finished at ten at night...And at the end of the day you had your album." (Lewisohn, *The Beatles Recording Sessions*). Back then, though, the technology of analog recording – sound waves directly imprinted on tape or disk - even at EMI, allowed little creativity beyond the straightforward performance of the songs. Recording machines were two-track stereo, the tape a narrow quarter-inch in width. Once a master was recorded, introducing additional sound required a second recording machine.

Beatles session engineer Geoff Emerick recalled from those days George Martin wanting handclaps added to a completed track. "Because the song had been recorded directly to a two-track tape...,this was accomplished...by loading a blank reel of tape on a second machine and putting it in record while the first machine played back, essentially making a copy of the original tape, along with the overdub." (Emerick, Geoff and Massey, Howard. *Here, There, and Everywhere: My Life Recording the Music of The Beatles*. New York: Gotham Books, 2006. 44.) In other words, as one or more of The Beatles clapped along to a playback of the master track, those claps along with the master track were newly recorded onto the second machine, resulting in a revised master with clapping now interpolated into the mix. This was typically the extent of studio artistry in the early days. George Harrison offered a tidy summary in 1965. "...Right from the beginning when we started recording," he said, "we'd just record in one take. You know, things like 'Twist and Shout' and 'I Saw Her Standing There,' which were all on our first album in England – we just turned the recorder on. We got a sound balance in the studio – just put the tape on and did it like that. So we never did any of this overdubbing or adding orchestras or anything like that."

In late 1963 and continuing through 1964, The Beatles use of studio technology evolved as they developed a second album and gained access to four-track recording. In

the process, they became increasingly aware of the growing disparity between what they did in the studio and what they could perform on stage. Said George Harrison, "It's only recently where we've been using a bit of overdub stuff. We've added things like tambourine, which you don't notice, you know. Because we still like to think we can get basically the same sound on stage." [Beatles Ultimate Experience: Beatles Interview: Chicago 8/20/65...Larry Kane] With each session, though, The Beatles progressed beyond a point where they could replicate on stage what the public heard on record.

By late 1963, The Beatles were a phenomenon in England, but barely a whisper in America. EMI's UK strategy was cautious, i.e., release a single, gauge response, release a timely follow-up, and then if warranted – which it always was – produce an entire album. The smashing success of *Please Please Me* motivated EMI to move ahead with slightly more aggression.

In the summer and fall of that year, The Beatles exhaustively toured Great Britain as they worked up songs for a second album. On Thursday, October 17th, they sojourned to Abbey Road to record incidental material in addition to a new single. The strategy was to keep The Beatles in the public eye until a second album could be released. That single – "I Want to Hold Your Hand"/"This Boy" – hit enormously in the UK. Four months later in January, 1964, "I Want to Hold Your Hand," released in the US on Capitol with "I Saw Her Standing There" on the flipside, at last broke The Beatles into the American "Top Ten."

The real significance of "I Want to Hold Your Hand" however, was that it was the first to be recorded with four-track technology. The session was a milestone in the group's studio artistry, Beatles chronicler Mark Lewisohn calling it "the dawn of a new era for The Beatles at Abbey Road." Production possibilities were amplified exponentially overnight and changed how The Beatles made records. "...The luxury of working in four-track instead of two-track," reflected Geoff Emerick, "gave...a great deal more control over balance of the instruments." And indeed, stereo separation, especially between bass and rhythm guitar, brought a new dimensionality to The Beatles' recorded sound. In short time, the production team established what would become a standard "general approach" to recording The Beatles, specifically, said Emerick, "put drums and bass on one track, combine Lennon's and Harrison's guitars on another, and then put the vocals on a third track. The fourth track was the 'catch-all' track for whatever sweetening George Martin wanted to add – handclaps, harmonica, keyboard, guitar solo, whatever." (Emerick, 70-71)

Interestingly, EMI had four-track recording capability from the start, but label execs thought The Beatles too "lowbrow" to warrant access. Only success on a grand scale opened the doors to optimum facility. After "I Want to Hold Your Hand," says Geoff Emerick, The Beatles "always recorded in multi-track. Four-track all the way

through to the *White Album*, eight-track afterward. Apparently," said Emerick, "the bigwigs at EMI had decided that the band had now earned sufficient monies for the label – many millions of pounds, for sure – to be afforded the same honor as 'serious' musicians, none of whom, I'm sure, brought in even a fraction of the income The Beatles did." (Emerick, 70)

One enormous ramification of four-track was that recording no longer had to take place in real time. Performances could now be created in layers, bits and pieces assembled and adjusted post-session. "With four-track," said Beatles technical engineer Ken Townsend, "one could do a basic rhythm track and then add on vocals and whatever else later. It made the studios into much more of a workshop." (Lewisohn, 36) Now, for example, John Lennon could sing and then afterwards lay a harmonica track over his own voice or, with instrumental tracks complete, a Beatle could come in anytime to re-record a guitar part, experiment with an instrumental effect, or improve upon a vocal lead or harmony. In the end, a finished recording was, like a film montage, a splicing together and overlay of carefully selected "takes" to create the final master.

The second album, in the UK titled *With The Beatles*, was released in November, 1963 with advance orders of 300,000. Most Beatles fans likely never noticed the differences in four-track recording. The most obvious changes were in the double-tracking of lead vocals, notably, John Lennon on "It Won't Be Long" and "Not a Second Time," Paul McCartney on "All My Loving," and George Harrison on "Don't Bother Me" and the Chuck Berry cover, "Roll Over Beethoven." The net effect was an appealing "fattening" of the vocals, somehow livelier from the millisecond space that separated the two vocal tracks. A noticeable bit of unreality occurs in John Lennon's cover of the Marvelette's "Please Mr. Postman." Lennon is recorded harmonizing with himself, and can be heard on the last syllable of "delivah the let-tah, the sooner the bet-tah" overlapping as he comes in with the first word of the next verse. A minor transgression en route to greater studio complexities to come.

Following the release of *With The Beatles* - issued by Capitol in the USA in modified form as *Meet The Beatles* - the group toured the UK as they also developed material for future recordings, the desired optimum, two LPs per year. In early 1964, The Beatles were focused on the soundtrack to *A Hard Day's Night*, their first movie. Though the film and soundtrack LP premiered in the UK in July, to drum up excitement for the project, some tracks were issued earlier as singles. Case in point, "Can't Buy Me Love," recorded in one session in late January and released about five months before the film. Advance orders topped a million, the record charting worldwide and at number one in America the week of April 4, 1964.

The recording of "Can't Buy Me Love" is an excellent example of Beatles studio craft in that phase of their career. "Remarkably," writes Mark Lewisohn, "the song was

recorded from start to finish in just four takes." Each take introduced changes, the first, reports Lewisohn, with a "very bluesy" McCartney vocal lead, Lennon and Harrison on backup vocal harmonies. "Take two," says Lewisohn, "was much the same, but take three switches to the style they were eventually to use..." On take three, McCartney's vocal shifts from blues to rock and the Lennon/Harrison backups disappear altogether. Then, in a fourth take - still subject to later remixes - were added "a vocal overdub by Paul and a lead guitar overdub by George." His double-tracked guitar lead was positioned in the mix to cut across both stereo channels. "In what was probably under one hour's work The Beatles had started, altered, and completed one of their biggest selling songs. It was to be typical of their industry throughout the year." (Lewisohn, 38)

"Can't Buy Me Love" however, required an additional tweak before it was truly complete. A "technical problem" was discovered in post-production, reported Geoff Emerick, the cause likely an incorrect spooling of the master tape following the session. "The tape," said Emerick, "had a ripple in it resulting in the intermittent loss of treble on Ringo's hi-hat cymbal." With pressure to release and The Beatles unavailable on tour, Emerick, George Martin, and future Pink Floyd producer Norman Smith, took emergency action. "Norman headed down into the studio to overdub a hastily set-up hi-hat onto a few bars of the song while I recorded him...Thanks to Norman's considerable skills as a drummer, the repair was made quickly and seamlessly, and I doubt if even The Beatles themselves ever realized that their performance had been surreptitiously augmented." (81)

Between 1964 and 1966, The Beatles maintained their madding pace of writing, recording, and now "acting." They turned out twenty hit singles, a second film, *Help!*, and four smashing UK albums, *Beatles For Sale*, *Help!*, *Rubber Soul*, and *Revolver*, each released in varying forms worldwide. The Beatles were now stars on the international stage, the penultimate rock 'n' roll band, the ones to emulate and to beat. In America, competition came from Bob Dylan and "folk rock," the Beach Boys and the California sound, and Motown and southern soul. Also in The Beatles' wake, the "British Invasion," spearheaded by heavyweights such as the Rolling Stones, the Animals, the Who, the Yardbirds with Eric Clapton, and Them, and on the lighter side, the Dave Clark Five, the Hollies, Herman's Hermits, Gerry and the Pacemakers, the Troggs, and Peter & Gordon.

During this period, The Beatles extended their touring internationally, including the market they most wanted to conquer, the United States. Concerts in the US were staged at mega-venues, the audiences enormous and so fired up and at such a distance that any artistic connection was impossible. Their performances, quite simply, could not be heard, obliterated in the mass hysteria of "Beatlemania." For The Beatles, touring became increasingly excruciating.

The first of four US tours was brief, two weeks in February, 1964, The Beatles playing the Coliseum in Washington, D.C. and Carnegie Hall in New York City. More important to their American success, however, were their appearances on *The Ed Sullivan Show*. Over 73 million viewers tuned in on February 9th and watched as teenage fans in a studio audience of more than 700 screamed, jumped, and went wild as The Beatles performed. The close-miked television broadcast provided home viewers a better hearing than those actually in the studio.

There would be three more Beatles tours in the USA between 1964 and 1966, the music consistently drowned out by relentlessly screaming Beatlemaniacs. "That's the...great truth," said Ringo Starr. "No one heard us, not even ourselves. I found it very hard....I couldn't do any [drum] fills...I'm just there...to hold it together somehow,...and the timing usually went all to cock. And that's why we were bad players." [Beatles Ultimate Experience: Ringo Starr Interview: Inner-view, 1976, Radio Program in US]

The summer tour of 1964 covered 32 shows in 34 days. More than 17,000 attended the first concert at San Francisco's Cow Palace, the performance stopped twice because of fans pelting The Beatles with jelly beans, a reckless show of affection in response to George Harrison's remark that Ringo had been stealing his "jelly babies." The tour played most major American cities, the venues convention centers, arenas, or stadiums, the crowds ranging from fourteen to more than twenty thousand.

The tours of 1965 and 1966 followed essentially the same pattern, except this go-round the venues were exclusively baseball stadiums and the chaos exponentially more unsettling.

The August 15, 1965 New York Shea Stadium concert, 55,600 attending, was memorable having been filmed for American television. En route to Portland, Oregon, a plane engine caught fire. That night, Beach Boys Mike Love and Carl Wilson visited backstage. At tour's end in late August, The Beatles stayed for a few days in a rented Los Angeles mansion and met with the King, Elvis Presley.

The Beatles 1966 tour of America was their last tour ever. The exceptionally turbulent year drove The Beatles permanently away from live performance and towards a sequestered life in the studio where they would take recording art to new heights. John Lennon's offhand remark that The Beatles were now more popular than Jesus spawned hate mail and death threats. Capitol records released *Yesterday and Today*, an album pieced together for American consumption from a mish mash of UK singles and tracks culled from *Rubber Soul* and *Revolver*. The album cover sparked public outrage with its picture of The Beatles in butcher aprons surrounded by slabs of bloody meat and disembodied baby doll heads, George Harrison's upraised middle finger, judging from the expression on his face, hidden from view inside one of them. In explaining the album's recall, Capitol press liaison Ron Tepper said the cover was intended as "'pop art'

satire." John Lennon called it was a protest over Capitol's crass repackaging of the British albums, a "butchering" of their artistic integrity, as far as The Beatles were concerned. [Badman, 210-211]

In July, The Beatles were literally pummeled in the Philippines en route to and in the airport, having inadvertently offended the family of President Marcos by failing to show at the palace for a special pre-concert gathering. [www.rarebeatles.com/ photopg7/nonusa/ php7466.htm] In America, fans disrupted the Cleveland Municipal Stadium concert by rushing the stage. The Beatles were rattled in Memphis by KKK threats over the "Jesus" remark, and momentarily feared for their lives at the pop-pop-popping of firecrackers. In Cincinnati, they were pressured but refused to play during a lightning storm at an outdoor concert. The final tour date was August 29th at San Francisco's Candlestick Park. The Beatles drove up from Los Angeles where they had stayed a few days in a rented Beverly Hills mansion.

At the time, Brian Wilson and Van Dyke Parks were immersed in the *Smile* project at Armen Steiner's "Eight-Track Studios" on the southwest corner of Yucca and Argyle. Parks tells of two Beatles, which two he doesn't say, visiting the studio. "It's always seemed probable to me," says Parks, "that this was arranged through Derek Taylor." The visit was prompted by a desire to sample what rival Brian Wilson was working at, but also to check out the eight-track recording machine, a light-year jump from the four-track The Beatles had been using at Abbey Road. "It was the only one in town at first," and what they heard, says Parks, were the "*Smile* master tapes, unmixed." "Neither Brian nor I were there. It was a surreptitious act of British aggression," Parks adds, now able to joke about it with the distance of time. "We heard about it from an assistant engineer at the studio and didn't take it well." Parks maintains that "*Sgt. Pepper* was a direct result of what they heard from the *Smile* tapes." [Parks interview continued via e-mail, 5-13]

Eight-track technology was not available to The Beatles at Abbey Road for another two more years with the recording of "Hey Jude" in August 1968. And while The Beatles' brush with *Smile* may have nudged them towards the idea of a "concept" album, the more probable result was a rededication to the direction The Beatles, as evidenced by *Rubber Soul* (1965) and *Revolver* (1966), had already boldly taken, if anything, reaffirming their established recording aesthetic.

Whatever the case, the important point here is that The Beatles elected to trade strife on the road for life within Abbey Road. "Everyone thought we toured for years," said Ringo Starr, "but we didn't...We'd finished touring in '66 to go into the studio where we could hear each other... and create any fantasy that came out of anybody's brain." [Beatles Ultimate Experience: Ringo Starr Interview: Inner-view, 1976..a Radio program in US] Abbey Road became a haven for studio creativity, shelter from the chaos of "Beatlemania." "...Some of the best stuff we did," said George Harrison, "was when we stopped touring

and spent a lot of time in the studio...I think *that* was some of the best music." [Beatles Ultimate Experience: George Harrison Interview: Crawdaddy Magazine, February 1977]

And it was. The Beatles' coming-of-age as recording artists was stunningly realized on the two progressively innovative albums *Rubber Soul* and *Revolver* that coincided with their last two years of touring.

Rubber Soul, the title, suggests Mark Lewisohn, a play on the term "plastic soul" used by black musicians at the time as a dig at Mick Jagger's derivative performance style, had been particularly difficult. At that juncture, Lennon and McCartney had no ready-made songs and the time frame for release was stressfully short. "John and Paul, really for the first time in their lives," said Mark Lewisohn, "had to force themselves to come up with more than a dozen new songs." Recording began in October of 1965 with a UK album release date set three months later in December. [Lewisohn 63.] Nonetheless, the songs - "Drive My Car," "Norwegian Wood," "You Won't See Me," "Nowhere Man," "Think For Yourself," "The Word," "Michelle," "What Goes On," "Girl," "I'm Looking Through You," "In My Life," "Wait," "If I Needed Someone," and "Run For Your Life" - were appealing, several outstanding.

Rubber Soul also marked a giant step ahead in Beatles' studio artistry, beyond anything they had done before. Though deadlines loomed, sessions were longer. Said Paul McCartney at the time, "D'you know the longest session we ever did in the studios? It was for the *Rubber Soul* album. It went on from five in the evening till half-past six the next day. It was tough but we had to do it. We do a lot of longer sessions now than we used to, because I suppose we're far more interested in our sound." [Beatles Ultimate Experience: Paul McCartney Interview: New Musical Express, 6/16/66]

As for the recording artistry of *Rubber Soul*, there were the now standard overdubs, vocal and instrumental overlays, and departures from "real time" performance. John Lennon's "In My Life," for example, went without a middle section until one was created and patched in four days later. [Lewisohn, 64] There were new sonic ingredients and textures, as in close-miked solo acoustic guitar, Lennon's sensuous intake of breath on "Girl," Hammond organ, electric piano, harmonium, and, on "Norwegian Wood," traditional Indian sitar, tabla, and, on a scrapped take, finger cymbals. Studio techs also constructed a fuzz box, "controlled distortion," said engineer Ken Townsend, effectively applied to McCartney's bass in "Think for Yourself." *Rubber Soul*, said George Martin, "was the first album to present a new, growing Beatles to the world. For the first time we began to think of albums as art on their own, as complete entities." [Lewisohn, 67-69]

With the next album, *Revolver*, The Beatles moved even further into rarified territory, what Lewisohn described as a "*quantum jump* into not merely tomorrow but sometime next week." [70] Paul McCartney predicted "it would be the best we've ever done. Every track on the LP," he said, "has something special...George wanted to get his Indian stuff on the record, I wanted to do some electronic things. And John even had a

song [*Tomorrow Never Knows*] in which his inspiration was *The Tibetan Book of the Dead.*" [Badman, 206] Indeed, there were the blithely spirited - "Good Day Sunshine," "And Your Bird Can Sing," "Taxman," "I Want To Tell You," "Got To Get You Into My Life," "Dr. Robert" – the somberly introspective - "Eleanor Rigby," "I'm Only Sleeping," "For No One," "Here, There, and Everywhere" - the exotic - "Love You To," "Tomorrow Never Knows" – and the fantastical "Yellow Submarine."

Studio technique abounded, functioned as an instrument itself, wholly integrated into the art of the music. Tracks featured string sections, orchestral horns, backwards lead guitar, "Doppler-ized" vocals and guitars fed through a revolving Leslie organ speaker, "jangle box" electronic guitar effects, Indian musicians only, no Beatles playing at all (on "Love You To"), and the illusion of spatial location achieved through stereo imaging, i.e., the placement of sound in varying degrees and at different points along the virtual stereo arc.

Revolver also incorporated sonic abstractions created by saturating sections of tape with sound overlays to the point of non-recognition. The tapes were then "looped" to play back unendingly. Each Beatle had a home tape recorder rigged for such experimentation, which was how, for example, the strident seagull-like squawking on "Tomorrow Never Knows" was achieved. In actuality, the sounds were a tape loop of distorted guitar strums stacked in overlay and played backwards. [Giuliano, 236]

The "Yellow Submarine" session was characterized by Geoff Emerick as having a "marijuana-influenced" Marx Brothers atmosphere. Microphones, both ambient and individual, were placed around the room to capture input from "raucous" guests who included Marianne Faithful, Rolling Stones Mick Jagger and Brian Jones, and George Harrison's wife Patti. "The entire EMI collection of percussion instruments and sound effects boxes," says Emerick, "was strewn all over the studio, with people grabbing bells and whistles and gongs at random. To simulate the sound of a submarine submerging, John grabbed a straw and began blowing bubbles into a glass..." At one point, Lennon tried the failed experiment of singing into a tiny condom-wrapped microphone submersed in a water-filled milk bottle. The finished "Yellow Submarine" incorporated echo chambered ad-libs, clanking chains, sound effects from the EMI record library, and the piece-de-resistance, a non sequitur Sousa-style marching brass band plunked down in place of an intended guitar solo. To avoid the delay of negotiating a royalty for the pre-existing brass band track, George Martin instructed Emerick to record it on tape, chop the tape into pieces, and then splice it back together randomly for insertion into the song. It was "unrecognizable enough," says Emerick, "that EMI was never sued by the original copyright holder of the song." [Emerick, 120-123]

"*Revolver*," said Mark Lewisohn, "is a pop masterpiece..., the album which, by common consent, shows The Beatles at the peak of their creativity, welding very strong,

economical but lyrically incisive song material with brave studio experimentation." [84] The *Revolver* sessions also yielded two tracks not on the album but released two months prior as a single. "Paperback Writer" and "Rain" introduced technological artistic elements that became standard Beatles fare.

"Paperback Writer" was innovative in its use of echo through electronic delay as well as in boosting Paul McCartney's bass sound. "Paperback Writer," says George Martin, "was the first time that we have had echo on a Beatles track." "You know," said George Harrison, "'Paperback writer, writer, writer...'" [Badman 208] McCartney, meanwhile, "had long been complaining that the bass on The Beatles records wasn't as loud or as full as on the American records he so loved," said Geoff Emerick. McCartney wanted the pumping front-and-center sound of southern soul and Motown. To get it, he switched from his usual Hofner bass to a Rickenbacker. Then, instead of the usual method of miking the bass amp speaker, Emerick rewired a large studio loudspeaker, in effect, reversing its function from sound emitter to sound receptor, transforming the loudspeaker into a giant microphone. Placed in front of McCartney's amp speaker, it captured and boosted his bass sound like never before. [Emerick, 116]

"Rain," a composition with the feel of an Indian raga, marked The Beatles' first use of variable speed recording and backwards sound. A variable speed recording machine was rigged to slow down or speed up on command. The "unusual sonic texture" of "Rain" was accomplished, says Emerick, "by having the band play the backing track at a really fast tempo while I recorded them on a sped up tape machine. When we slowed the tape back down to normal speed, the music played back at the desired tempo, but with a radically different tonal quality." [Emerick, 116]

Backwards sound, on the other hand, came about by chance. "...In those days," said John Lennon, "we used to take a seven-and-a-half-inch tape cut of a track home and, by the next night, arrange what we were going to put on top of it."

> ...I went home and I was out of my mind, stoned, because we had been working till five in the morning. I...stuck the tape on...backwards and played "Rain" and it came out backwards...and I was thinking, "Wow, this is fantastic." So, the next day I went in and said, "What about the end of the song? Why don't we have the whole of the song again, you know, backwards? We didn't do that, but we just laid my voice track and guitar track over the last half-minute backwards. You can hear it at the end. It sounds as if I'm singing Indian." [Badman, 209]

In effect, *Revolver* distanced The Beatles impossibly from what they could perform on stage. Commenting at the time, George Harrison said, "...If we get to...doing some of the things on our LP on stage...I suppose we'll go on with a couple of tape

recorders." [Badman, 208] That, of course, never happened. *Revolver* was released in August, 1966 a week before the start of the final American tour. Other than a straight performance of "Paperback Writer," their then hit single, The Beatles performed not one song from *Revolver*. They had fully transitioned to the irreproducible.

The enormous critical and commercial success of *Rubber Soul* and *Revolver* instilled The Beatles with a confidence to continue experimenting, to trust their instincts completely. Even before a post-*Revolver* album was conceived, Lennon and McCartney were articulating the recording philosophy that would inform *Sgt. Pepper.* As to what a future album might contain, John Lennon told the *New Musical Express*, "Literally anything. Electronic music, jokes..."

> One thing's for sure - the next LP is going to be very different. We wanted to have it so that there was no space between the tracks - just continuous...Paul and I are very keen on this electronic music. You make it clinking a couple of glasses together or with bleeps from the radio, then you loop the tape to repeat the noises at intervals. Some people build up whole symphonies from it..." [Beatles Ultimate Experience: John Lennon Interview: New Musical Express 3/11/66]

In the midst of the *Revolver* sessions, McCartney revealed himself to be on the same wavelength. "...I've stopped regarding things as "way-out" anymore."

> I've stopped thinking that anything is weird or different. There'll always be people...like that Andy Warhol in the States...who makes great long films of people just sleeping. Nothin' weird anymore.
>
> We sit down and write, or go into the recording studios, and we just see what comes up....I keep my eyes open and I see what's going on around me. Anyone can learn if they look. I mean, nowadays I'm interested in the electronic music of people like Berlo [Luciano Berlio] and [Karlheinz] Stockhausen, who's great. It opens your eyes and ears...I for one am sick of doing sounds that people can claim to have heard before..." [Beatles Ultimate Experience: Paul McCartney Interview: New Musical Express, 6/16/66]

These attitudes set the tone for what most critics regard as the pinnacle of The Beatles work as recording artists, *Sgt. Peppers Lonely Hearts Club Band.* Recording began in late November 1966, almost four months after the last American tour date and the release of *Revolver*. At this juncture, The Beatles had proven their mettle, earned the right to do as they wished, break rules, and move in any musical direction. And,

indeed, *Sgt. Pepper* was that kind of album. Yes, it was a "concept" album - of sorts - the songs "book ended" between two versions of the title track, all in context of a concert presented by The Beatles' arcane alter ego, Sgt. Pepper's Lonely Hearts Club Band. "It was going to be an album of another band that wasn't us," said Paul McCartney. "We were going to call ourselves something else, and just imagine all the time that it wasn't us playing this album." A mind game that freed The Beatles to break from all prior conceptions of who they were. [Badman, 256] "Because we knew that The Beatles wouldn't ever have to play the songs live," said Geoff Emerick, "there were no creative boundaries." [Emerick, 190]

On *Sgt. Pepper*, The Beatles indulged every creative impulse that came to mind. If there *was* a unifying theme, it was that stature afforded them the freedom to sound exactly as they pleased...which they did. The sonic assemblage included a battery of keyboards including piano, Hammond organ, harpsichord, harmonium, and Mellotron. There were also orchestral brass and horns, violins, harp, and cellos, chimes, calliope, glockenspiel, and sampled applause, laughter, crowds, and animal noise.

Lyrical content was slice-of-life, portraiture, evocative, mystical, psychedelic, and even at times, as George Harrison once put it, "fruity." Songs passed by as vignettes, the album an abstract canvas of a Beatles vision of the world , not only through literal meaning, but through sweep of sound, sonic textures, breaks from songwriting convention, themes lifted from newspaper stories, a child's drawing, a corn flakes advertisement, a parking ticket from a meter maid, a circus poster, visions from an acid trip. *Sgt. Pepper* was a pastiche of swirling timbres, like a Van Gogh painting and perhaps no less a masterpiece, or at least a shot at trying to create something that would endure. There is studio artistry at every turn in *Sgt. Pepper*, far more, really, than can be covered in a book chapter, though some highlights can certainly be explored.

John Lennon's "Strawberry Fields Forever" was the starting point, though in the end not making it onto the album. George Martin explained that Beatles manager Brian Epstein, nervous that between projects "The Beatles were slipping..., wanted another single out that was going to be a blockbuster." [Badman, 263] "Strawberry Fields Forever" got the nod. As sonically radical as anything The Beatles had ever done, recording it set the tone and aesthetic that distinguished *Sgt. Pepper.*

At the heart of the track's sonic texture was the Mellotron, a wave-of-the-future keyboard programmed to imitate other instruments or sounds, a conceptual forerunner of the Moog synthesizer. As Geoff Emerick described, "...Each key triggered a tape loop of a real instrument playing the equivalent note...You could have flutes, strings, or choir at the touch of a button. Some of the keys were even set up to trigger complete prerecorded rhythm sections or musical phrases instead of single notes."

[Emerick, 135] The flute-like pump organ that colors "Strawberry Fields Forever" was worked out and performed by Paul McCartney.

Another measure of studio wizardry was required to complete the track. The "Strawberry Fields Forever" we hear is actually stitched together from two versions in differing keys. John Lennon wrestled for weeks over which of the various takes he preferred, finally settling on the first half of one, the second half of another. "Even though the two takes John wanted...were recorded a week apart," said Geoff Emerick, "...the keys...were only a semi-tone apart – and the tempos were fairly close. After some trial-and-error experimentation, I discovered that by speeding up the playback of the first take and slowing down the playback of the second, I could get them to match in both pitch and tempo." [Emerick, 139]

Also contributing to the track's otherworldly quality, backwards cymbals, plucked piano, sitar, and an Indian instrument called the swordmandel. "Strawberry Fields Forever" closed with an unusual reprieve, a sort of "freak-out" replay in reverse. The reprieve was notable, however, for another reason. Recording took place around the time of American Thanksgiving, and there was studio chatter about "turkey and all the trimmings." Lennon got a kick out of inserting non sequitur absurdities into the mix, and so in the reprieve's trail-off, he utters "cranberry sauce." Some of the more obsessed Beatles fans, convinced there were secret messages buried within the groove, Rorschach-ed the phrase into "Paul is dead," the rumor lingering for years. Such was the public's fixation, denied seeing The Beatles in person, manifesting a Beatlemania of the imagination. [Emerick, 141] John Lennon capped it perfectly. "...'Cranberry sauce.' That's all I said. Some people like ping-pong, other people like digging over graves. Some people will do anything rather than be here now." [*Playboy*, January 1981, Vol. 28, 1, pg. 75-114+144]

The *Sgt. Pepper* sessions continued on into December with two tracks, "When I'm 64," from the early days jamming at The Cavern, and "Penny Lane," a nostalgic re-imagining of the old neighborhood in Liverpool, "...just reliving childhood," said John Lennon. [Badman, 265] There was nothing remarkably unusual in the recording beyond McCartney's request for orchestral horns on "Penny Lane", most notably a high pitched piccolo trumpet that caught his ear in a television broadcast of a Bach *Brandenburg Concerto*. Also at McCartney's insistence in spite of an incredulous George Martin, a speeding up by at least a half-pitch of "When I'"m 64" to give it a more "youthful" sound. [Lewisohn, 91]

"When I'm 64" found a place on the finished LP, while "Penny Lane," an ideal thematic foil to "Strawberry Fields Forever," did not, destined instead to be paired with that track as Brain Epstein's desired single. The year had come to a close, and with a solid start, said George Martin, "we all went home for Christmas." [Badman, 257] Recording resumed in mid-January after a holiday break. Meantime, the "Strawberry Fields

Forever"/"Penny Lane" single, though disappointingly never reaching #1, broke into the US Top Ten in March three months prior to the release of *Sgt. Pepper*.

All told, *Sgt. Pepper*, at a cost of £50,000 (equivalent in 1967 to about $138,000), took an unprecedented for The Beatles six months to complete. [Russell, 97] "...I must confess,' said George Martin, "as it was getting longer and longer into the album, and more and more avant-garde, I was beginning to wonder whether we were being...over the top, and...maybe pretentious. There was a slight niggle of worry. I thought, 'Is the public ready for this yet?'" Said Geoff Emerick, "...We were getting a bit overwhelmed, I mean, it was just that we couldn't see it ever coming to an end." [Badman, 269] But of course it did, and when all was said and done, *Sgt. Pepper,* recording completed in April, 1967, released in the UK on June 1 and in the US on June 2, was a showcase of studio artistry and innovation, shaking up how rock 'n' roll would from then on be recorded. "When The Beatles unleashed *Sgt. Pepper's Lonely Hearts Club Band,*" read the editorial kickoff to *Mojo* magazine's 2007 article celebrating the 40th anniversary of the album's release, "they blew the finest minds of their generation and changed all music forever." [Harris, Mojo, 2007 p. 72]

Electronic innovation was intrinsic to *Sgt. Pepper's* aesthetic. Surprisingly, given the complexity of the production, four-track was still the core means of recording. Music or sound was recorded across each of four tracks, the levels mixed and then reduced down to a single master track, the process repeated until all four tracks were full and deemed complete. The trouble with repeated dubbing down, however, was a build up of distracting residual noise. To rectify that, *Sgt. Pepper* was recorded using recently developed Dolby Noise Reduction. Artistically, the benefit was an enabling of more complex overlay along with a new clarity in the recorded sound. The Beatles also made liberal use of electronic effects such as "phasing" and "flanging. Related to echo, these effects arose out of the subtle variants in tempo and pitch between slightly out-of-synch playbacks of the same track, achieving what Geoff Emerick called "a sweeping *swoosh*." [Emerick, 88] The overall texture of "Being for the benefit of Mr. Kite" relies on phasing, whereas George Harrion's guitar solo is flanged on "Fixing a Hole." ADT, or Artificial Double Tracking" was another important electronic innovation. Developed by engineer Ken Townsend, ADT, by automatically doubling vocals or instrumentals, eliminated the tedious process of performing the same part twice. [Lewisohn, 204] Finally, there was the "direct lining" of McCartney's bass, plugging the instrument directly into the recording console as opposed to placing a microphone in front of his bass amp speaker. "I think direct injection," said Ken Townsend, "was probably used on Beatles sessions for the first time anywhere in the world." [Lewisohn, 95]

The net effect of electronic dabbling was that it made the conventional sound unconventional. Nothing, in fact, was real. Lead vocals, certainly recognizable as individual Beatles, came at us ethereally, or from a distance, or somehow thicker, or submersed in something we couldn't quite put a finger on. Background voices were sped up or slowed down, reverberated, equalized, electronically altered one way or another to impart a preternatural quality. Engineer Richard Lush recalls Lennon saying, "I want to sound different today, nothing like I sounded yesterday." [Harris, Mojo, 2007 p. 76] "John and Paul's attitude," says Geoff Emerick, "...was 'we're going to play guitar, but we don't want it to sound like a guitar; we're going to play piano, but we don't want it to sound like piano.'" [Emerick, 189]

If this all has a psychedelic ring to it, that is entirely accurate. Listen to the shifting textures of John Lennon's voice on "Lucy in the Sky with Diamonds," the tinkling otherworldly keyboard, the flanged guitar running parallel to the lead vocal. "Lucy" used variable speed more than any other track on the album. Lyrics also reinforced the euphoric feel. Lennon says the images were drawn from Lewis Carroll's *Alice in Wonderland*. "It was Alice in the boat."

> She is buying an egg and it turns into Humpty Dumpty. The woman serving in the shop turns into a sheep and the next minute they are rowing in a rowing boat somewhere and I was visualizing that. There was also the image of the female who would someday come save me... a "girl with kaleidoscope eyes" who would come out of the sky...

Lennon always insisted that any connection between "Lucy in the Sky with Diamonds" and LSD was purely coincidental. "My son Julian came in one day with a picture he painted about a school friend of his named Lucy. He had sketched in some stars in the sky and called it 'Lucy in the Sky with Diamonds,' Simple." [*Playboy*, January 1981, Vol. 28, 1, pg. 75-114+144] And yet not so simple. Even taking Lennon at his word, the overall "dayglow" aesthetic of *Sgt. Pepper* without doubt reflected a generation's chemically-inspired perceptual realignment. Nonetheless, the artistic strategy was entirely sober and deliberate, the goal to create a surreal vision through sound. The resulting work could not be performed on stage, existed only in the bubble of the studio; could not be experienced "live" by a mass audience, but only through turntable spin and a trip through an electronic speaker.

The scenes in *Sgt. Pepper* were set with inserted cheers, applause, rooster crows, stampeding menagerie—or through swirling sound, as on "Being for the Benefit of Mr. Kite," lyrics lifted literally from a poster for "Pablo Fanque's Circus Royal." "John had said he wanted to 'smell the sawdust on the floor,' wanted to taste the atmosphere of

the circus," said George Martin. "I said to him, 'What we need is a calliope...steam whistles played by a keyboard." [Martin, Lew-99] There were none to be found, so Martin and his team created a fairground in studio.

> I knew we needed a backwash, a general mush of sound, like if you go to a fairground, shut your eyes and listen: rifle shots, hurdy-gurdy noises, people shouting and—way in the distance, just a tremendous chaotic sound. So I got hold of old calliope tapes, playing "Stars and Stripes Forever" and other Sousa marches, chopped the tapes up into small sections and had Geoff Emerick throw them up in the air, re-assembling them at random." [Lewisohn, 99]

Apparently, a frequent technique on *Sgt. Pepper.* The album's finale - a sonic orgasm, a bit of nonsense, and a treat for the dogs - was up to that point in time unprecedented in rock history. The closer was "A Day in the Life," a juxtaposing of John Lennon's glib newspaper cutout lines - "a lucky man who made the grade," "4000 holes in Blackburn, Lancashire," "the English army had just won the war," "I'd love to turn you on" – and Paul McCartney's out-of-breath workingman who "had a smoke" and "went into a dream." It was McCartney's idea to end with an orchestral build-up. Lennon's directive was, "I want it to be like a musical orgasm." [Badman, 288]

Forty classical musicians were assembled, their sound aggrandized by recording the orchestra four times, once on each of the four tracks, with an ultimate mix-down to a single master. Geoff Emerick oversaw the recording, carefully adjusting the volume controls "to get the crescendo of the orchestra just right."

George Martin created a 24-bar score with measured instructions. "At the very beginning," says Martin, "I put into the musical score the lowest note each instrument could play, ending with an E-major chord."

> And at the beginning of each of the 24 bars I put a note showing roughly where they should be at that point. Then I had to instruct them. "We're going to start very very quietly and end up very very loud. We're to start very low in pitch and end up very high. You've got to make your own way up there, as slide-y as possible so that the clarinets slurp, trombones gliss, violins slide without fingering any notes. And whatever you do, don't listen to the fellow next to you because I don't want you to be doing the same thing." Of course they all looked at me as though I was mad...

"The orchestra just couldn't understand what George was talking about," says Geoff Emerick, "or why they were being paid to go from one note to another in 24 bars.

It didn't make any sense to them because they were all classically trained." [Lewisohn, 96] Nonetheless, the massive rumbling crescendo came off as planned followed immediately by a "Ta-Da-a-a-a!" in the form of a crashing E major piano chord, John, Paul, Ringo, and Mal Evans at three pianos all hitting the keys at the same moment, loud pedals full open, the final chord lingering forty seconds. Still, Sgt. Pepper was not ended.

"They were all thrilled with what they heard," said Geoff Emerick, "but John and Paul felt that they wanted something additional to end the album...John had read somewhere that dogs could hear higher frequencies than humans could, and requested that a supersonic tone be placed at the end to give them something to listen to." A 15-kilocycle tone was patched in, yet still The Beatles wanted more. John Lennon said let's "put on some gobbledygook, then bifurcate it, splange it, and loop it." "He always loved the sound of nonsense words," says Emerick. "To George Martin's amusement, the four Beatles endorsed the idea wholeheartedly and raced down to the studio while Richard hurriedly put up a couple of microphones."

> They looned about for five minutes or so, saying whatever came to mind as I recorded them on a two-track machine. When I played the tape back for them, John identified a few seconds that he particularly liked—it consisted primarily of Paul repeating the words "Never needed any other way" for no particular reason while the others chattered away in the background—which I duly made into a loop, then flew into the ending. And with that, *Sgt. Pepper's Lonely Hearts Club Band* was done." [Emerick, 188]

A high mark in recording artistry, *Sgt. Pepper* was released in both mono and stereo versions, the two mixes markedly different. The Beatles took part in and approved the mono mix, while the stereo mix was created by Emerick and his team without their input. Hardcore fans maintain the mono is *Sgt. Pepper* as The Beatles intended. Following the album's release, though, the critical quibbling was not about the preferred mix, but rather about The Beatles themselves. A critic for the British *Daily Mail* wrote, "...It's now around four years since The Beatles happened, and...The Beatles have changed completely...They have isolated themselves, not only personally, but also musically. They have become contemplative, secretive, exclusive and excluded..." [Badman, 289]

Most fans and especially fellow musicians, however, found the album eye-opening, exciting, and the wave of the future. The Beatles had graduated from wanting to hold hands to blowing minds out. At the *Sgt. Pepper* release party, George Harrison said, "People are very, very aware of what's going on around them nowadays. They think for themselves and I don't think we can ever be accused of under-estimating the intelligence of our fans." Added John Lennon, "The people who have bought our records

in the past must realize that we couldn't go on making the same type forever. We must change and I believe those people know this." [Beatles Ultimate Experience: Beatles Interview: Sgt Pepper Launch Party 5/19/67]

The Beatles carried forward the studio artistry of *Sgt. Pepper* to the projects that marked the last years of their existence as a unified group. No question, The Beatles and their creative team were the right people at the right place and time, like Brian Wilson and the Beach Boys, perfectly catching the wave of advancing recording technology. When all was said and done, though, The Beatles emerged with the broader more enduring body of work, a goodly portion of that post-*Sgt. Pepper.*

Immediately following *Sgt. Pepper* was *Magical Mystery Tour* (1967), the album pieced together by Capitol for the US market from the soundtrack of a BBC filmed television production and collected singles including "Strawberry Fields Forever" and "Penny Lane." Pictured on the cover were The Beatles in the funny fuzzy animal costumes they wore for the TV show. "I Am the Walrus" was the TV tie-in track, the lyrics nonsensical with sonic exotica that included a children's choir and snippets of radio programs recorded directly into the sound console. "One track," said John Lennon, "was live BBC Radio-- Shakespeare or something-- I just fed in whatever lines came in." [Playboy] The most memorable song on the album was "All You Need is Love," composed especially for a satellite broadcast viewed worldwide by more than 200 million on June 25, 1967. The Beatles recorded a rhythm track earlier that day and, with invited friends and a small orchestra, played and sang along to it during the live broadcast. With post-production adjustments, the resulting single was an international hit by mid-July.

The first album release on The Beatles own Apple label came in November, 1968 with the double LP titled *The Beatles*, called by fans *The White Album* because of its plain white covers. The album's thirty tracks, most written during The Beatles' stay in India with the Maharishi Mahesh Yogi, ranged from brilliant to throwaway to, in the view of some critics, nearly incomprehensible. More than on any previous album, the lyrics and sonic characteristics revealed The Beatles not so much as a unified group but as distinct entities. Discerning listeners sensed fractures in the facade. "The break-up of The Beatles can be heard on the double-album," said John Lennon, "...on which, I thought that every track sounded as if it came from an individual Beatle." [Badman, 389]

John Lennon offered poignancy in "Julia," cynical comment in "Happiness is a Warm Gun" and "Revolution," and a rollicking Chuck Berry-style send-up of the Beach Boys in "Back in the U.S.S.R." Paul McCartney provided cartoon-ish character sketches in "The Continuing Story of Bungalow Bill" and "Rocky Raccoon," acoustic guitar gems in "Mother Nature's Son" and "Blackbird," and screaming Little Richard intensity in "Helter

Skelter," a song unfortunately linked to Charles Manson who claimed it as inspiration for the brutal 1969 Tate/LaBianca murders.

The White Album also signals the emergence of George Harrison as an "A" songwriter with four tracks including the ethereal "Long, Long, Long" and, with Eric Clapton on lead guitar, "My Guitar Gently Weeps," one of the all time Beatles favorites.

Ringo Starr delivered on his own "Don't Pass Me By" and on the album's closing lullaby, John Lennon's tongue-in-cheek but nonetheless charming "Good Night." It should be noted that Ringo Starr, frustrated by growing tensions between band members, left the group in the midst of recording. "We're doing this album," Starr said in 1976, "and I'm getting weird - saying to me-self, 'I've gotta leave this band. It's not working,'...and I went away for two weeks. (laughs) ...And then I got a telegram from John saying, 'Great drums' on the tracks we'd done. And I came back and it was great, 'cuz George had set up all these flowers all over the studio saying welcome home..." [Beatles Ultimate Experience: Ringo Starr Interview: Inner-view, 1976..a Radio program in US]

Two of the tracks on the double white album are pure studio indulgence, one the shortest, the other the longest. Paul McCartney's "Why Don't We do it in the Road" clocked in at one minute and forty-two seconds, a foretaste of his solo career with McCartney singing and playing all the instruments, no studio tricks beyond that. John Lennon's "Revolution 9," on the other hand, was total artifice, an abstruse eight minute plus pastiche of electronica. "Altogether, 154 entries from at least 45 sources..." [Everett, 175] "Revolution 9" was totally about studio as instrument, the track a collage of tape loops and effects. A "faceless voice" uttering "Number Nine, Number Nine." George Martin saying "Geoff, put the red light on." Sampled orchestral dubs from "A Day in the Life." Backwards-played bits and pieces of choir, symphony, opera, and Lennon on Mellotron. Paul McCartney did not contribute, but George Harrison did, he and Lennon lying on the floor "saying strange things like 'the Watusi' and 'the Twist'" and "reading out bizarre lines of prose" as Yoko Ono hummed "at a very high pitch." [Lewsiohn, 138]

"Revolution 9" drew the fire of critics upon the album's release. The *New Musical Express* called the track "a pretentious piece of old codswallop which is nothing more than a long, long collection of noises and sounds seemingly dedicated towards the expanding sale of Aspros [a headache remedy]." [Badman, 387] John Lennon's cool rebuttal was simply that "I imposed 'Revolution 9' on *The Beatles* for all the people who just want to hear the beat all the time." [Badman, 397]

In the final two years before the last work on a Beatles track at Abbey Road on April 2, 1970, four LPs would be released. An emotionally difficult time for The Beatles, the period was marked by increasing tensions exacerbated by Yoko Ono's interjection into the creative process as well as by business issues that surfaced in the wake of manager Brian Epstein's death in 1967. None of it was helped by the fact that The

Beatles had now gone three years without the direct personal affirmation that comes only from direct contact with people through live performance. All of these troubling elements were reflected in the direction and tone of The Beatles' remaining studio work.

Yellow Submarine came out in January 1969, a recasting of that title track as plot inspiration for a film depicting The Beatles as animated characters and ending with actual performance footage. The film was welcomed by fans hungry for any sort of visual experience of The Beatles, affirmation that they were still working as a team. The soundtrack LP offered one side of appealing "B" tracks supplemented with "All You Need is Love," and a flipside of instrumentals recorded for the film by George Martin and orchestra.

Three final albums would come while The Beatles were still intact. *Abbey Road* (September, 1969), their last collaboration in that studio, *Hey Jude* (February, 1970), a collection of UK singles packaged for US release, and *Get Back*, a derailed effort to simplify, ultimately re-titled and released as *Let It Be* (May, 1970).

Abbey Road, recorded in July and August of 1969 and regarded by many, including Ringo Starr, as The Beatles best, was the first to be released. [Beatles Ultimate Experience: Ringo Starr, Inner-View, 1976.] The title was a tip of the hat to the studio that nurtured their evolution as recording artists. This was the album that showed The Beatles crossing Abbey Road, Paul McCartney barefoot, adding fuel to the absurdly persistent rumor that he was dead. The greater irony of *Abbey Road*, however, is that it was released before *Hey Jude* and *Let It Be* when in fact most of its tracks were recorded after the tracks on those albums. Given that and the intention here to focus on recording artistry, these albums are best reckoned with in order of recording rather than release.

Hey Jude was essentially another of Capitol's cobbling together for the US market of UK singles. The salient track was, of course, "Hey Jude." Otherwise, the album was a collection of unusually disparate singles. "Can't Buy Me Love" and "I Should Have Known Better" dated from 1964, "Paperback Writer" and "Rain" from 1966.

"Lady Madonna" was a more recent standout, a 1968 hit single and the last Beatles issue on either Parlophone or Capitol. The track was a straightforward Paul McCartney rock 'n' roll performance in the mold of the 1956 British hit "Bad Penny Blues." Beyond the 4-man saxophone section, fuzzed guitar, and doubled piano, the only other studio artifice was what sounded like muted trumpets. "In actual fact," said Ringo Starr, "it's just John and Paul sort of humming through their [cupped] hands into the mike...It sounded great, so we decided to use it." [Badman, 344]

The title track "Hey Jude," also recorded in 1968, was The Beatles first use of 8-track technology. With "Revolution" as the flip, "Hey Jude" was the debut single on Apple. Originally titled "Hey Jules," the song was written by Paul McCartney for John Lennon's son Julian, grappling at the time with his parent's divorce. McCartney recorded

the base track at the piano singing as he played. Later, a forty piece orchestra was dubbed in. "We also got them singing on the end," said George Martin, and though "...I don't think they liked doing it very much...," the song "became one of the biggest single sellers that we ever had." [Badman 381]

Abbey Road at the time did not yet have 8-track capability. "Hey Jude" was rehearsed there, but recorded and mixed at Trident Studios, which did have 8-track. In playback at Abbey Road, however, the track sounded flawed. "Obviously," recounted Geoff Emerick, "something at Trident had been misaligned and the only hope of salvaging the mix was to whack on massive amounts of treble equalization...Eventually we got it to sound pretty good, although the track still didn't have the kind of in-your-face presence that characterizes most Beatles recordings done at Abbey Road." [Emerick, 260-261]

The most compelling feature of "Hey Jude" as a recording is its unconventional arrangement, a daring seven minutes plus long, nearly half of it a fade-out that never fades, as much a "hook" as the song's primary verses. "It certainly was the longest single we had made at the time," said George Martin. [Badman 381] Or, for that matter, *anyone* had made. "We liked the end," said Paul McCartney. "We liked it going on...The DJs can always fade it down if they want to. If you get fed up with it, you can always turn it over..." [Badman 381]

Following the release of the "Hey Jude/Revolution" single, John, Paul, George, and Ringo moved on to an album conceived as The Beatles pared down, a full circle return to rock 'n' roll basics - voices, drums, bass, rhythm and lead guitar. No overdubs, technicalities, or backwards anything. The studio proceedings were to be filmed for television broadcast, the working title, *Get Back*. Recording began on January 2, 1969 and culminated on January 30 with the news-making concert staged on the rooftop of The Beatles Savile Row offices, John Lennon famously remarking at the close, "I hope we passed the audition." [Womack, 1]

Sidestepping the minutia of The Beatles unraveling during this period, suffice it to say that tracks for the new stripped down album were recorded in the group's own studios at Apple headquarters and in live performance during the rooftop concert. As events transpired, though, *Get Back*, the LP, never made it to record stores. The Beatles new adviser, Allen Klein, with profit in mind, wanted a 35mm cinematic film in place of the TV broadcast as well as studio rather than live rooftop recordings. [Russell, 153] There were additional commercial considerations as well, but the main thrust was that the album was delayed. Only two tracks, "Get Back" and "Don't Let Me Down," were released to the public in the form of a single in April 1969.

The evolution of "Get Back," the song, was lengthy, numerous recordings made over a few months time, some live, others in studio. The finished version was ultimately

created by Paul McCartney and producer/engineer Glyn Johns from the 11th of 14 studio takes and a seamlessly tacked on coda from the 3rd live rooftop performance. [Lewisohn, 168-169] Glyn Johns would put together a finished *Get Back* album true to the original stripped-down intentions of The Beatles, but his efforts were rejected. The album eventually saw light a year later, but in modified form and with a new producer. More on that in a moment, but first, *Abbey Road*, a homecoming of sorts and a white flag in the midst of the battle that *Get Back* had turned out to be.

Abbey Road was a return to the "home" studio, a last opportunity, as it turned out, to work in-house with George Martin, Geoff Emerick, and some from the old team. There were, however, changes at Abbey Road. One, noted Emerick, was the switch from outmoded glowing tube electronics to transistorized components. The new mixing console, for instance, lacked the warmth of the old tube model in how it captured The Beatles' sound. George Harrison was troubled "that there was less body in the guitar sound," and Ringo Starr "was playing as hard as ever, but you didn't hear the same impact." [Emerick, 277]

Another change this time around was more human than technical. John Lennon and Yoko Ono had been in an automobile accident as the sessions were starting. The others worked for a time without Lennon, but he seemed discouragingly disengaged when he at last arrived. To compound matters, Lennon had a bed placed in the studio for the recuperating Yoko Ono, a microphone positioned overhead so her artistic suggestions could be heard. "I'd spent nearly seven years of my life in recording studios," said Emerick, "and I thought I'd seen it all...but this took the cake." [Emerick, 280]

With all the distractions, tensions, and technicalities, *Abbey Road* still emerged as rich with memorable tracks, two of them George Harrison's best work with The Beatles. The first, a standalone from side one, is "Something," a gorgeous love song of unusual texture and structure. Harrison performed his own vocals, drums, and piano on the initial demo. Three months and several discarded versions later in May, 1969, the core master take was recorded with Paul and Ringo on bass and drums respectively, John Lennon on guitar, George Harrison on guitar played through a rotating Leslie organ speaker, and American R&B artist Billy Preston on piano. Aside from his musicianship, Harrison invited Preston because his presence tended to dampen the other Beatles bickering. With strings dubbed into the final mix, the track was deemed complete in August.

The most compelling aspect of *Abbey Road* was the second side rollercoaster ride, aptly described by author Ken Womack as "Lennon and McCartney's ultimate vehicle for their nostalgic journey to a comparatively genial, untarnished past." [Womack, 293]

Ten songs - some just beyond a minute - and one an afterthought, pass by in a cyclorama of sound, tempo, and mood. Listeners come away with a sense that they have somehow experienced the whole dynamic sweep of The Beatles' career in twenty-one brief minutes. The effect derived from pure studio artistry, not merely by how songs were recorded, but from careful sequencing and interfacing that never provided the listener a moment to breakaway from the action. In this regard, *Abbey Road* is a crowning studio achievement.

The side soars from the start with the second of George Harrison's masterpieces, "Here Comes the Sun," an optimistic message of clearing sky and light, a clever construction of major chords and brightly picked acoustic guitar. With McCartney on bass and Starr on drums, Harrison otherwise carries the show performing vocals, guitars, harmonium, and Moog synthesizer, the recently invented keyboard instrument that used computers to simulate instrumental sounds and beyond. The final sonic texture of the song was enriched by an overdubbed 17-piece orchestra. [Russell, 142]

Next came John Lennon's sultry "Because," an impressionistic piece inspired by the chords of Beethoven's "Moonlight Sonata" sequenced in reverse. John, Paul, and George sing in close harmony, George Martin on harpsichord, and George Harrison programming and performing on Moog synthesizer. [Russell, 142]

Here began the stepping off point, Paul McCartney's "You Never Give Me Your Money," a linkage of four short and distinct themes, serving as a platform that segues into John Lennon's regal "Sun King," the recording replete with Romance languages, chirping crickets, and ethereal harmony. The pace builds in momentum, four songs just over a minute to less than two in unbroken succession before resolving into "Carry That Weight," a rousing orchestral piece, the lyrics seeming to speak at once of both The Beatles' burden of staying together and the listeners' need to brace up for a time when The Beatles would be no more. There is a brief reprise of "You Never Give Me Your Money" before a return to the main theme and then a skillful break from tempo as the track transitions into the semi-finale, "The End."

That two minute four second track encapsulates all that made the Beatles great. Screaming vocals, a hard-driving beat, the first ever Ringo Starr drum solo, a sampling of searing lead guitar solos from John, Paul, and George, and, in the end, the mellow side, Paul McCartney's lead vocal buoyed by John Lennon's multi-tracked back-up harmony, the words shining through most of all. "And in the end, the love you take is equal to the love you make." A somber farewell until ameliorated by Paul McCartney's twenty-three second afterthought, "Her Majesty," as if The Beatles had left the stage and when the show seemed irretrievably over, his smiling face peaking out briefly from behind a side curtain...and then he's gone. The Beatles all attended the August 20, 1969 session during which the final *Abbey Road* mix and running-order sequence were fixed.

"It was the last time," writes Mark Lewisohn," that they were together inside the recording studio where they had changed the face of popular music." [Lewisohn, 191] And, I would add, how it was recorded.

Yes, it's true, there was one more album to follow, the retooled *Get Back*, now titled *Let It Be*. The Beatles, long gone from the project, brought in legendary producer Phil Spector to finish the album. Spector, though admired, was difficult to work with in the studio as he heavy-handedly imposed his own vision on The Beatles' work, the concept of "stripped-down" lost in the mix. Spector, critics would say, overzealously added orchestral and choir overdubs as well as his trademark reverb. Geoff Emerick described Spector barking commands at veteran Abbey Road engineers and screaming at musicians, "You'll do what I tell you to do, and you'll like it!" As musicians rehearsed "The Long and Winding Road," Emerick recalls that Spector "turned around and said...loudly enough for us all to hear, 'I hope Paul likes this, because I've changed the chords...' Spector was not just remixing The Beatles music, he was actually *altering* it." [Emerick, 322]

Let It Be and the theatrical film that coincided with its release in May, 1970, were well enough received by both critics and the public, a number of songs first tier Beatles fare. "Two of Us," a personal favorite, conjured up the good karma that had been the hallmark of the Lennon/McCartney partnership. Three of the album's best songs shine out from the shadow cast by Phil Spector's imposing "wall of sound." John Lennon's "All Across the Universe," originally a simple recording, was now overdubbed with a thirty-five piece orchestra and fourteen-voice choir. "Let It Be," Paul McCartney's piano-accompanied gospel-tinged hymn was now supplemented with brass and cellos. "The Long and Winding Road" was framed unflatteringly by orchestral overdubs and a choir that sounded disengaged from the emotion in McCartney's performance. Not to diminish Phil Spector because his groundbreaking work as a producer was perfectly suited to his own projects. He simply wasn't the right fit for the Beatles at that point in time. If anything, putting the artistic studio decisions in the hands of an outsider, even one of Phil Spector's stature, only served to reveal how brilliant George Martin, The Beatles, and their in-house creative team were in developing the body of studio work that transformed how pop music was recorded.

The Beatles made a decision to cut themselves off from the sustenance of live performance in exchange for the freedom that came with isolation in the studio. By doing so, they positioned themselves to revolutionize the art of recording, and that they did, forevermore defining what it truly meant to be a recording artist. Perhaps it is too obvious or trite to say, but in the end, all The Beatles really did need was love. They told us so. And since they could no longer find it among themselves, they went their separate ways to find it each on his own.

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