Pet Project

It was 30 years ago today, Brian Wilson taught the band to play. Indeed, Paul McCartney cites Wilson's pop music masterpiece as the singular inspiration for the Beatle's Sgt. Pepper album. This collection of symphonies in miniature has been Brian Wilson's crowning achievement to-date (he's still around and doing just fine, thank you!). And every year since 1966, people turned-on to the musical statement of a lifetime from The Beach Boy's leader are inspired to create anew. Pet Sounds' following verges on religion, and it is widely regarded as the perfect album.

By Mark Smotroff Photograph: Michael Ochs Archive

Capitol Records has taken matters to heart with a reissue that is easily the most intensive study of one single record ever released. The Pet Sounds 30th Anniversary Collection is dedicated entirely to the making of Pet Sounds, and out-does even Polygram's landmark Layla (Clapton) 20th anniversary set. Over the course of four CDs, this box set reinvents (in a first time ever, anywhere, true stereo mix), rediscovers (bunches of alternate versions), reveal (fascinating tracking sessions demonstrating Brian's meticulous studio wizardry and ear for detail) and ultimately restores this pop classic (in a 1966 mono mix newly remastered from original apes using the latest 24-bit HDCD technology).

The best part about this is that Brian himself was heavily involved in the production process alongside engineer and production whiz Mark Linett, ensuring a level of quality and vision heretofore only accomplished by Frank Zappa in his 54 CD library restoration.

DID THE '50S END IN 1965?

John Sebastian recently commented during his J-Band concert tour that to get to the '60s one really has to jump ahead to 1964. It is fair to say that Pet Sounds marked a crossroads of the '50s and the '60s musical culture, as the last remnants of '50s and early '60s influences were reinvented.

Take a look at the output from that time period: The Beatles turned out a complete collection of songs with zero-percent filler (Rubber Soul). Dylan had gone electric with Highway 60 and was working on the landmark Blonde on Blonde. Frank Zappa delivered his 2-LP debut with The Mothers of invention to an unsuspecting music world (Freak Out) - the first two-record rock album ever. The 33-1/3 RPM LP was no longer simply a collection of singles. There was a concept to be delivered and a mood to be set. The listening experience was now two (or more) album sides long, and the effect was invigorating.
In the early '60s, Brian and Phil Spector were two of the hottest hit makers around. On Pet Sounds, Wilson took LA's finest session players on a truly magical mystery tour into very real new musical spaces. A virtual "who's who" of musicianship, time has built up the legend of the sessions.

Fortunately, tapes were running throughout most of the sessions to affirm the legend, so we can actually today hear Brian assembling Pet Sounds, step by step, almost a sonic equivalent of watching Michaelangelo paint.

We hear the starts and stops, the leading and coaxing of this pop orchestra to create the perfect musical statement. It's a marvel to hear Brian cut what sounds like a perfectly good take and work the musicians to achieve - sometimes in a matter of minutes - and draw out the performances we've come to know and love.

THROUGH THE LOOKING GLASS

Let's set the "way back machine" for early 1966 in Southern California. Brian Wilson was clear minded. The Beach Boys were on the road and he was now in his safe haven of the

recording studio to pursue his vision. His records were at the top of the charts and he, having the record company under his thumb, was able to do exactly what he wanted. In his quest for broad-based artistic respect. Wilson took on the daunting task of taking a rock 'n' roll recording where it had never gone before.

In the extensive book accompanying the Pet Sounds Box Set. Wilson admits: "When I heard Rubber Soul, I said, 'That's it." I am really challenged to do a great album. Not to try to out-do Rubber Soul 'cause nobody can out-do Rubber Soul; it's a thing of its own. But you can do your own thing. You don't have to panic and say 'I can't do as good as The Beatles, you know.'"

So imagine what the scene was like: Brian Wilson is booking his session and calls in some of the hottest players then (and now). The "Wrecking Crew" as they were known apparently because older musicians thought them unruly kids who were "wrecking" the music business. Check out the Pet Sounds line up: Hal Blaine on drums; Steve Douglas, Jay Migliori, Jim Horn, Roy Caton, Plas Johnson and Lou Backburn on horns; Glen Campbell, Tommy Tedesco, Jerry Cole, Barney Kessel, and Billy Strange on guitars; Ray Pohlman, Carol Kaye, Lyle Ritz, Julius Wechter, and Bill Pitman on bass; Tommy Morgan on harmonica; Carl Fortina and Frank Marocco on accordian; Leon Russell, Al De Lory, and Don Randi on piano; Gene Estes, Frank Capp, and Jim Gordon on percussion; Larry Knechtel on organ; plus The Sid Sharpe Strings. Discrepancies abound, but this appears to be a fairly comprehensive representation of who is on the record - essentially everybody who was anybody in the LA session musician scene of the early '60s. On Pet Sounds, Brian only used The Beach Boys for vocals and occasional guitar from brother Carl Wilson.

The Big 3-0: Thirty years ago (from left to right) Carl Wilson, Dennis Wilson, Al Jardine, and Brian Wilson.

Brian had a sound in his head and was keen on capturing the basic tracks live in full takes. "in the 4-track days, you had to make your mixing decisions a lot earlier than you do now," said Beach Boy Bruce Johnston. "Those choices, from an engineering point of view, are locked in and live on tape. You can't take them out later. Unlike today."

Reissue producer Mark Linett concurs, "Thirty years later, the work on these sessions is an achievement in both production and engineering that in my view remains unsurpassed. Tracks like 'Wouldn't It Be Nice' and 'God Only Knows' were completed in a single long session without any instrumental overdubs."

Parts of Pet Sounds were recorded at Gold Star Studios and Columbia with Larry Levine and Ralph Balentin engineering, respectively. Most of it, however, was taped at Western Studios - the site of the creation of many of The Beach Boys' greatest hits - and those sessions are what we focus on here. Chief engineer there was Chuck Britz, who worked together with Brian in Western Studio 3.

Brian was simultaneously directing the orchestra from the booth and watching the mix. The live room, 15 x 32 feet, was extremely crowded. "Studio 3 is fairly small," reports Linett. "This, however, contributed greatly to the sound Brian was able to achieve. The leakage contributed to Brian's sound, as opposed to today, where we usually try to isolate everyone. There was no need to do that back then. You recorded to 3-track to have some control, but it was never the intention to pull out entire tracks. The uniqueness of the bland into various mics had a lot to do with getting the tonal quality that is Pet Sounds.

"Brian set everyone up playing pretty much live and balanced in the room, which is why you can hear him say things like 'move a little closer' or 'play a little louder,' things you almost never hear today. It's a lost art really," Linett adds.

Brian set up the musicians like an orchestra, not a rock band. Strategically placed sound baffles created cubicles for the musicians who would sit with their backs to the side walls. Pulse-meister Blaine sat at his kit from and center without much baffling. Basses were located to his right, and behind them was an organ. Horn players were in the back against the right wall or, if there were only a couple of horns and no organ, they'd be right behind the bass.

Closest to the booth, on the left, was the guitar section, all in a row with small amplifiers facing Hal. The baby grand faced the booth while the tack piano and occasional second organ were behind them along the left wall. Percussion was spread wall-to-wall in the back, facing the booth. Strings were generally overdubbed, but if they were live, they'd be in back behind baffling.

"Brian knew basically every instrument he wanted to hear and how he wanted to hear it," say engineer Chuck Britz. He called in all the musicians at one time, which was very costly. Brian would work with that instrument until it had the sound he wanted. The process often took hours.

"When Brian would come in, there were usually no charts, no written music. Everything was going on inside his head," said Britz. "A lot of times he didn't even have a title for the song. He would play it for Ray Pohlman; Ray would take what Brian was telling him and write it out. That was the chord structure. There'd be a guy in the horn section (usually Steve Douglas) who would take Brian's idea and transpose it for the other horn players." Britz adds, "Brian could go over to the piano and play what he wanted which was great. Then, they would play it and he would finally get them to realize what he heard. He'd say, "I want you to play such a such here. Hal, give them a beat. Tempo,' and they'd play it. That's how it worked. Step by step. All this time I was in the booth by myself, except if there were musicians in the booth going direct."

The late Steve Douglas once reminisced about a situation with one of the other musicians during the Pet Sounds sessions: "Tommy Tedesco said, 'Hey man, it won't work; it just won't work.' And Brian said, 'Play it.' And it sounded like it didn't make sense until he overdubbed the strings and it all fell together. It was just amazing. He heard that in his head. That's what has always blown me out about him - that he could hear these complex orchestrations."

A listen to the tracking sessions reveals Brian's meticulous studio practice leading to the magic moments where "the right parts" are played and the songs take on the familiar presence we've grown to know and love.

"He would rehearse everybody on the floor. He always did the musical part of the arrangement out on the floor," states Britz. "Very seldom was he in the booth. Of course, sometimes the room was too small for the number of players he had booked, I might have guys playing in the booth, so he would come in there and work on their parts. Once we had 21 people in that little studio."

The Beach Boys' voices were laid down in similar manner: "The way a vocal session would work is that Brian would invite you into the booth to hear a track; then we would work out the parts," said Beach Boy Al Jardine. "We would just go to the piano and start working from there. We helped each other."

I know the first thing that sticks out in my mind from those sessions were a couple of string dates, because I was always so impressed by the sophistication of the voicings that Brian wrote for strings," said Tony Asher, the lyricist Brian chose to work with on Pet Sounds. "It's terribly difficult to write for strings. If you've got 40 strings, somebody'll be playing the right notes. J But when you've only got four or five or a small number of voices, everything is audible and there's nothing to distract people's ears from what you're writing.

"What Brian did was so different from what I was used to seeing in the studio," Asher added. "In those days, it was considered hip to do bizarre, unexpected things. People would try whatever they could think of that was unexpected just for its own sake. That never happened with Brian. He did the same kind of experimenting not to see if he could accidentally stumble on something unique, but he did these unique things because that is what he wanted to hear. And most of the time it ended up on the record."

A great example of this sort of experimentation is the recording of his dogs for the close of Pet Sounds after "Caroline, No" fades out. Linett revealed that Brian's dogs were actually brought into the studio for a half hour barking session (which is excerpted on the box set)! Asher continues: "As unorganized or even unproductive as he could be in other situations, when he got into a recording session, you had a sense he had ideas that we gonna get away if he didn't get'em done right away. He drove The Beach Boys a little, so the tension I felt seemed to come from the fact that he was a taskmaster and he didn't tolerate fooling around. He was short tempered with them when they couldn't get it done the first time or get it right."

HOWDHEDOTHAT?

There is no question as to "whodunit" on Pet Sounds. Beach Boys/Pet Sounds Box Set producer Mark Linett provided some great insights into the "how" of making Pet Sounds from a technical standpoint.

Linett notes that the majority of the sessions were recorded at Western Studio 3. Sunset was used for one tracking date and Gold Star was used for two. Brian went to Columbia Studios to lay down some of the vocals because they had an 8-track. While Gold Star is gone and the studio at Columbia is now a newsroom, Western is still around, now known as Allen Side's Oceanway Studios - and it is largely unchanged from 1966.

At the time Pet Sounds, the board in Studio 3 was a custom-made Bill Putnam tube console, which was unique to that room, although there was a duplicate board that was used mostly for remote work. This board employed Putnam's Universal Audio 610 input modules.
"This was interesting because it was the first time anyone had built a modular recording console," reports Linett. "This module comprised everything in basic form that we use today,

including a mic preamp, line switch, gain control, echo send, an equalizer and a three-bus selector. If you had a failure, you could plug in a different module and go about your business."

STUDY BEFORE REMIX

During production of the box set, wherever possible, Linett worked to maintain the character of the original recordings by using a close to the original equipment as was feasible. What is evident in talking with Linett, however, is the importance knowing just how the original was made.

"The board I used to process the individual tracks for the stereo remix was built in 1962 and came out of Western's Studio 2, which was just down the hall from Studio 3. This console uses the UA610A module, which has a balanced transformer output unlike the board from Studio 3, which was unbalanced," Linett explains. "One of the failures I've always felt about that console in particular was that it recorded great, but the line inputs were padded down and went back to the mic inputs, creating a real distortion problem. This problem is typical of a lot of consoles from the '60s. The 3-track, 2-track, and live-to-mono stuff always sounded fantastic, but when they started mixing it through the board, they definitely lost a lot of the fidelity."

There was one 3-track session at Western ("Sloop John B"). Everything else was cut on _-inch 4-track, but the fourth track was never used live for anything other than a mono dub down, according to Linett. "They would plug the mono bus into track four and use that for mono playback. The choice was to do that or hear things in three separate speakers and, undoubtedly, that is not the way Brian would have wanted to do it," he says.

"In those days you were going to make albums in both stereo and mono. It was an interesting board. There is one pan pot dedicated to the center channel; we could never figure what that was for unless they were planning on mixing Esquivel records, panning entire tracks back and forth between speakers!"

Linett says that the 3-track output was permanently wired to three UA 1177 compressors - which are like the 1176, but designed for remote use and wall mounting - with click stops for attack, release, and ratio. Typically, the working surface of the console was mounted in a desk and there would be a lot of ancillary equipment both in the desk and externally, such as mic preamps.

The Studio 3 board had 12 inputs (Linett's board has 14). "For a big band date that would have not been enough, so they had all sorts of outboard stuff to compensate - even the talkback was outboard," says Linett.

The only effects used on Pet Sounds are tape slap and reverb. "They had a left-center-right switch," says Linett. "If you had a mic assigned to the left channel/bus, the echo send automatically went to the left echo bus, and in most cases you'd return that reverb/slap to the same bus. This meant that if you were using reverb, the bus compression was working on the whole signal, including the reverb.

"I am not sure how much they were using the live chambers versus their EMT plates, but to my ears, it sounds more like the plates rather than chambers. It should be mentioned that you get a significantly different sound from a chamber when you record it 'live' as opposed to doing it off tape, and one reason these records sound the way they do is that the reverb

was being printed as part of the recording - unlike today where we'll record 'dry' and add the effects later.

"Monitors were Altec 604B's in Putnam's cabinets powered by UA amplifiers, which were basically Dynacos built into his own chassis. The tape decks were Scully four-track 288's."
A wide-range of microphones was used on Pet Sounds. Western was equipped with Electro-Voice EV666's, AKG C60's, Shure 545's, and a few Neumann U47's and RCA 77DX's. The EV666 was the predominant mic, and the Shure 545 came in a close second.

"It varied a lot as to what got used where," explains Linett. "There were no rule, but they certainly knew what they were doing. The AKG C60 got used as a drum overhead as often as the Shure 545. Drums would typically get three to six mics. The bass would often be milked with one of the 77's. Horns would be 77's or C60's."

The tape used was Scotch 201 or 203, and the tape condition for the remastering project was excellent even though they were stored randomly and not in any controlled conditions. He says the biggest tape problems came from the splices. "On 1/3-inch tapes, the splices sometimes fall out, and in at least one case, the splice had bled and pulled the oxide off the next wrap. On the 4-track session master, the beginning of 'God Only Knows' posed a problem that I had to correct: a big drop out caused by a splice. It was only half-a-second long, but it sounded weird. Fortunately, I was able to lift some of the same arrangement piece from two seconds later to fill the gap."

CREATING A STEREO PET SOUNDS

In 1966, Pet Sounds was only mixed in mono (the faux "Duophonic" stereo issue from the '60s does not count since that was made from a mono master tape). The process of making a stereo multitrack from the multitude of source material was no quick task.

"Recording the tracks in stereo was never a goal for Brian," Linett states in the box set liner notes.. "The division of the instruments was only done with an ear toward what sounds Brian might want to highlight later."

"Like his main production influence Phil Spector (not to mention The Beatles, who were more concerned with the mono mixers up until after Sgt. Pepper), Brian felt that making records in mono allowed the producer to present the record exactly as he wanted it to be heard without any interference from the listener's stereo, which could be set up in many different ways. Also in those days, rock records were made to be heard on car radios which were all mono, so the producers deliberately mixed for their main market.

"Whether the instrumental track had been dubbed down to a single track on a 4 or 8-track, the backing tracks were all premixed in mono, the technical reason why there could not be a true stereo mix in 1966 - all the instruments were locked in mono," Linett explains.

"The only way to have a true stereo instrumental track to use for this new stereo mix was to sync the vocal overdubs to the original master track. To do this, the original instrumental multitrack tape was transferred onto a digital multitrack and then, after carefully matching tape speeds of the track and vocal tapes, the vocals were manually synchronized to the track using the (1966) dubbed track on the vocal tape as a guide. The result was a single multitrack master tape of each song with all the discrete tracks that Brian recorded in 1966 in sync."

Fortunately, 99 percent of the multtracks were there according to Linett, enabling him to create this fascinating new mix.

"The object was to create a stereo mix the way we would do it today, only using the material we had. The goal was to produce a stereo mix that was true to the original. A '60s mix for the '90s, if you will.

"It was not like on The Who reissue series where the intent seems to have been to remix things and change them around," Linett explains. "The original mix is a tremendously important part of these older records. You can improve them using proper mastering techniques and hopefully get back to the original masters as much as possible, but the notion of trying to remix them simply because 'you can' seems pointless. I've heard a couple of the redone Who records, and they sound completely different (and to my ears worse) than the originals.

"I wouldn't try to remix Pet sounds in mono," Linett says matter-of-factly, "because it is the way Brian made it. It's often a dangerous job to give a remix job to someone because they'll often find something to do whether it's a good idea or not. The goal of creating a stereo mix of Pet Sounds was not to re-create history, but to make an interesting new experience." Linett went back to an original Scully tape machine for the 3- and 4-track playback on the box. "They were brought as close to modern standards as possible," he explains "I used the Scully for most of the transfers and playbacks for the box set, though in some cases I used an Ampex ATR 104."

The Pet Sounds multitrack instrumentals and vocals from the 8-track machines were transferred to a Sony PCM-3324S digital 24-track. Remixing at Linett's project studio, Your Place or Mine Location Recording Service, was accomplished on a customized API2488 with Flying Faders, but using the UA610 board modules as the line amps "because there is a sound to the old board," Linett admits. "Some reverb was added, mostly plate or spring, and a little Lexicon 300. In a couple of places, I used slap to duplicate what was done on the original. I did some bus compression, mostly with an SSL or a Calrec."

The new stereo master of Pet Sounds was mixed on to 9-inch Scotch 996 using Dolby SR at 15 ips. "We didn't do any major Sonic Solutions clean up work on this project apart from some declicking. For the sessions part of the box, we did 60 percent of the editing using razor-blade tape splicing and the remainder on the Sonic Solutions system."
The project was mastered at Oceanview Digital by Joe Gaswirt, who employed a custom Neumann board with no additional compression. "We tried to keep it pretty accurate," says Linett. "Just some EQ.

"The remaster was done using the new HDCD 24-bit process, which I think makes a big difference. The detail that you get even dithered down to 16 bit is much more accurate, and the ambient stuff holds up a lot better.

"We've improved the playing field a bit with this reissue. You've got to keep these things in mind with the reissue process. The bigger the number of tracks, the harder it is to duplicate. With Pet Sounds, we have the advantage of having the sound that they had 30 years ago locked down. I am not trying to put my stamp on this record. I am honored to have been a part of this reissue, but I don't presume to think that I could improve Brian's masterpiece."