

Stan's Safari 42

STAN RECALLS THE VIRTUES OF MONOPHONY,
WHICH PRECEDED THE CURRENT STEREO ERA

When I first joined Cambridge Audio in 1971 my primary task was to design stereo amplifiers and loudspeakers. This proved something of an emotional wrench, as 95% of my extensive record collection was monophonic at that time and I was largely of the conviction that mono sounded best. And there are circumstances where this conviction still holds fast today. Before you assume that the old boy has really lost it this time, just take a few minutes to think back. Most of the great rock albums (*The Sound of Fury*, *Pet Sounds*, *Sgt Pepper* and *Blonde on Blonde*, to name but four) were conceived as mono recordings and produced as such. On those occasions when a stereo mix followed, it was widely held to be inferior. Often the mono and stereo version were not just different mixes but different recordings. A good example is the Traffic album *Mr. Fantasy*, where the stereo version has different mixes and some different recordings, and the original UK mono recording is far superior to the stereo version to my mind.

The early days of stereo were not very good for mixes. Aural 'ping-pong' was popular, as engineers sought to emphasise the effects of having two channels: sound in the middle and at either side with lots of dead space in between. As a consequence, many musicians and producers saw stereo as a potentially a short-lived gimmick, so didn't really give it much attention. Among the oddities of the era was a confusion between 2-channel and stereo. So when I listen to my high quality EMI Japan pressings of the various Beatle albums, I find that most of the early stereo recordings have the vocals on one channel and the instruments on the other. Obviously this was quite logical to George Martin.

Again with *Sgt Pepper* the band were involved in an original mono mix that took quite some time, whereas the stereo mix was entrusted to some of the studio engineers and wrapped up in a few days. George Harrison is quoted as saying: "...there was one speaker right in the middle.....and that was it. When stereo was invented, I remember thinking 'Why? What do you want two speakers for?'

because it ruined the sound from our point of view. You know, we had everything coming out of one speaker; now it had to come out of two speakers. It sounded like ... very ... *naked*."

Certainly the art of mixing in mono is very difficult. For each instrument you only have two parameters you can adjust; the volume level and the frequency band. To make space you have to approach a recording rather like composing a score for an orchestra, so that there is always space for an instrument to be heard. A renowned practitioner was Phil Spector. Listen to his mono recordings of The Crystals and the girl's voices have been filtered to a narrow frequency band. They're heavily compressed and treated with echo so they can still be heard against a huge instrumental backing. Similarly when recording with pianos he would typically use four pianos, each slightly adjusted in tuning and each playing the same progression. Then again choosing the right microphone and compression would leave a clear building block that could be neatly slotted into a mono mix.

One of my favourite pieces of construction is the legendary bass line in *You've Lost That Loving Feeling*. As a twenty year old I struggled to get the same sound on the ubiquitous Fender Precision bass. Only years later did I discover that the sound was a composite of an upright bass and a Fender bass, with a Danelectro bass to give that extra twang. (That's not totally original of course, as Jack Good had used a combined upright bass and Fender electric bass on some Billy Fury recordings.) In contrast to all the work needed to build up a complex mono mix, stereo provides the extra parameter of location. With two speakers and a pan pot there's plenty of space in which to drop all the different sounds (remembering of course that a stereo recording with rock and pop music is normally built up from lots of individual mono tracks).

Another oft-forgotten problem with stereo was that the first generation of stereo disc-cutting heads distorted when fed with high amplitude bass signals, and early stereo pickup cartridges couldn't track heavy bass signals without jumping. (The legendary Shure V15 cartridge was sold largely on the basis of its good tracking ability.) When it came to cutting the album bass levels had to be limited, so quite often the stereo mixing engineer would produce a second-generation 'cutting master' made with the bass reduced in level. The result of this technical limitation was that the stereo editions of 1960s records tended to sound much thinner than the mono versions, and so lost impact upon playback. Furthermore records with

long sides had to be subjected to compression so that the amplitude of the signal would not cause one groove breaking through into the next; a problem with the stereo groove, because of its added dimension of movement.

The transition from mono to stereo was not trouble free for me. I had a friend who owned a Leak mono valve amplifier and a huge Wharfedale loudspeaker and so he was the first stop whenever I bought a new record. To this day I swear I've never heard *Pet Sounds* have such impact as it did through that system. After a number of failed attempts, I eventually finished up with a comparable system based around a massive Tannoy GRF corner horn. For a time I was a happy man, until I thought I'd better make an effort to embrace this stereo stuff. I bought a cartridge from the late Angus McKenzie (a leading hi-fi reviewer of his era), and in came a Cambridge stereo amplifier from work. Finally my system was completed by another massive GRF horn.

From the off it sounded interesting; different but ultimately not as satisfying. But by this stage my girlfriend of the time gave me one of those ultimatums. ("Either they go or I do"), so I had to downsize to smaller loudspeakers and things were never the same. The very openness of the soundstage somehow sacrificed some solidity in the sound. After all, at a typical live gig of the time, you'd be faced by a drum kit flanked on both sides by a stack of Marshall amplifiers, which definitely came across as a mono sound. In time I came to enjoy the benefits of a wide soundstage, and as the equipment improved joined everyone else in seeking better imaging and the ability to identify different instruments. But I often thought that listening to music was becoming more intellectual and less primeval.

I can now hear some of my armchair critics saying "Fine if you like mono just press the button on your amplifier and you'll get what you want". But it isn't like that and there is a tendency for some younger listeners as equating today's high-end system as representing stereo and an old Dansette record player representing the best that mono can offer. In fact these days it is quite difficult to create a true mono system.

Let's start with the loudspeakers. One of them has to go, because simply feeding the same signal to two speakers doesn't provide mono. The two speakers are in different locations, so they'll have different frequency responses and different phase and timings due to room effects. The pure mono sound will therefore be corrupted. The amplifier is easy; just use one channel. However, the record



player must be fitted with a mono cartridge. You might be forgiven from not knowing there is such a thing and that there is a difference. If you are listening to vintage mono LPs you'll need to avoid so-called 'Mono' cartridges which are often stereo cartridges re-wired as to give a mono output. A spherical stylus will be needed as the grooves are U shaped rather than V shaped. The stylus only moves in the horizontal direction so when correctly set up the surface noise can be much lower than with a stereo pressing. However, this advice doesn't work with more modern mono reissues, which will have been cut with a modern stereo cutting head and so will be damaged by a spherical stylus.

Indeed modern vinyl is a bit of a jungle with many recent issues being cut from a digital copy of the master tape. The good news is that several high-end mono cartridges now exist and work really well. For a not inconsiderable price Lyra will sell you a mono cartridge that use vertical coils only capable of detecting horizontal stylus movements; two identical mono coils double the output and avoid ground loops when using stereo amplifiers. The final consideration is that with one channel you are losing half of the low frequency output so a bigger speaker and amplifier are essential.

I'm not suggesting turning your back on stereo. Just that if you enjoy a lot of 1950s; 1960s and early 1970s music like me, and have the original records (in mono), you should make the effort to listen to them as the musicians intended and how the actual recordings reproduce in the best way. I really think you will be surprised at what you hear. I for one can hear the difference and I suspect that one of those new fangled Lyra mono cartridges will appear on my list to Father Christmas.