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B&W P9 Signature

The flagship headphone from the UK's biggest speaker brand claims design inspiration from its loudspeaker range. All that, and a luxury Italian leather finish to boot

Review: **Andrew Everard** Lab: **Keith Howard**

The headlong rush into headphones continues apace: industry analysis consistently shows 'personal audio' to be one of the only reliable growth areas, seemingly immune to the vagaries of the rest of the market. OK, so if you look closely most of the action is at the decidedly affordable, almost disposable, end of the spectrum, mainly fuelled by commuters' 'distress purchases' of replacements for lost or broken earbuds, but there's also a reasonable fashion sector in which the likes of Beats and others exist

B&W'S HALF-CENTURY

Not surprisingly, speaker companies have found a way into this market, and Bowers & Wilkins is no exception. Here we have its new flagship model, the £700 closed-back P9 Signature – despite the suffix, there's no 'standard' P9 – which is said to exemplify 'all the acoustic and design innovation skills we have amassed in our 50 year journey'. Ah yes: as well as being an unashamedly luxurious design, the P9 Signature is, like the £22,500 800 D3 loudspeakers [*HFN* Oct '16], part of the company's celebrations of its first half-century.

Like all of the company's headphones, the P9 Signature will still fold for portability – it's described as 'raising the bar for performance from a mobile headphone' – but is made rather more solidly, with the earpieces suspended on hangers made from cast aluminium, and the headband and earpads finished in leather.

And not just any leather, but luxury-handbag-grade Italian Saffiano leather from the ScaBrenta tannery. The headband adjustment is in the sliding of the hangers and the flexibility of the head-cushion, while the earcups also pivot a little in two dimensions within their oval mounts. The whole thing feels slick and beautifully crafted, an impression reinforced by its Alcantara 'suede' travel pouch.

RIGHT: The finish of the P9 Signature is undeniably luxurious, with both headband and ear-cushions finished in a textured, handbag-grade Italian Saffiano leather

Behind all this statement style is the engineering that really counts, which is where the audio expertise in Steyning (the Bowers & Wilkins R&D location) comes in. The drive units are a fairly standard 40mm diameter, but are of an in-house design which replaces conventional headphone driver technology with a semi-piston construction more akin to a speaker driver, combining high compliance for low-frequency air-shifting ability with lightness and stiffness for a clean midband and high frequencies.

The damped cone is driven by a 'motor' using a separate copper-clad aluminium wire (CCAW) coil and a large – by headphone standards – magnet. It also uses a composite chassis designed for stiffness and optimised using Finite Element Analysis, combined with an aluminium plate onto which the driver is mounted to push chassis modes and resonances well out of the audible band. The drivers are also mounted asymmetrically in the

housings, so rather than firing straight at the ear, they're slightly forward, and angled at 15° to create a more speaker-like sound.

The earcups themselves are made from a composite material, and suspended to decouple them from the headband and hangers, damping out mechanical noise and also stopping vibrations from being

transmitted from one earpiece to the other [see KH's Lab Report, p67]. Memory foam is used in the earpads to give the best possible seal around the ears by shaping to the user's head over time, while also allowing

controlled air-leakage to alleviate that 'totally shut-in' feeling.

Like other Bowers & Wilkins headphones, the P9 Signature has a removable cable, accessed by pulling off the left-hand earpad to reveal its flush-mounted plug. Two cables are supplied in the box – one is a generous 5m, fitted with a standard 3.5mm three-pole plug at each end and suitable for home use, while the shorter one (1.2m) has four-pole plugs at each end and an in-line microphone/remote control to 'drive' Apple iOS smartphones and tablets.

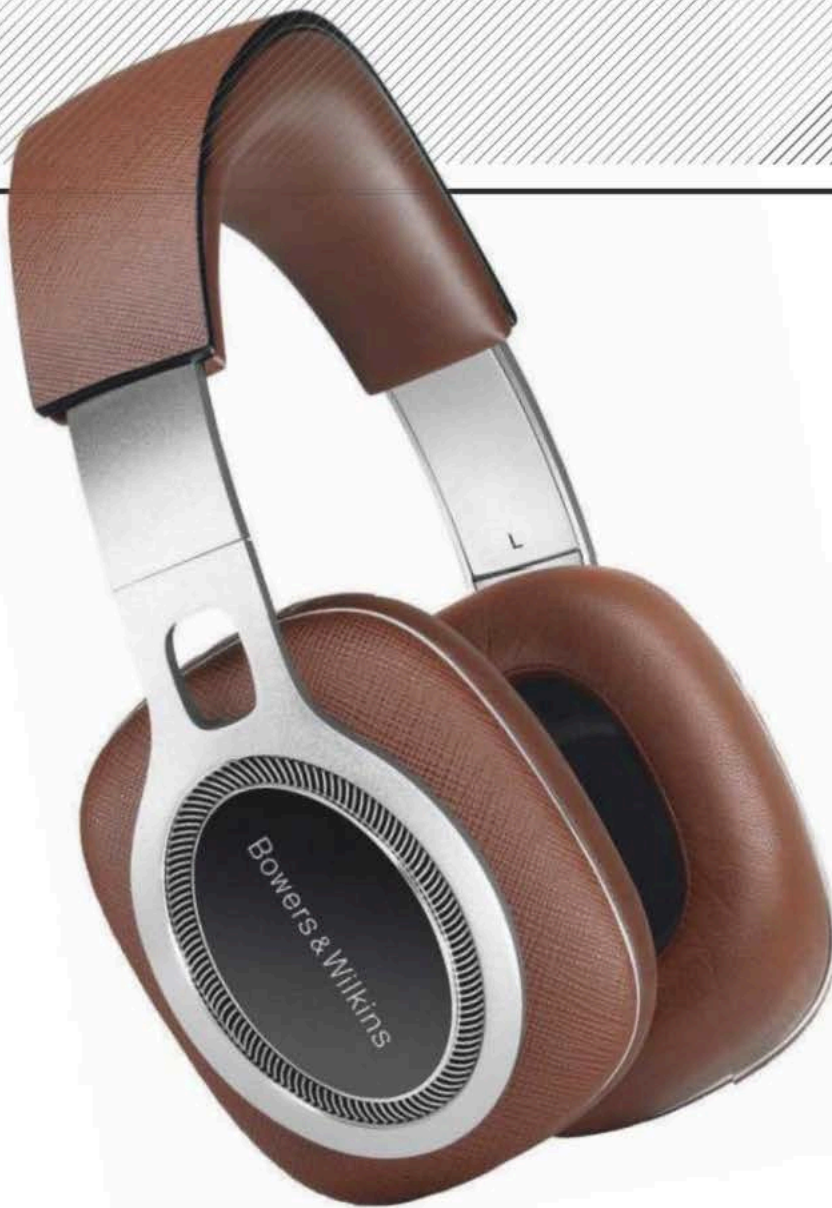
Buyers of the headphones who register them online will also qualify for a cable fitted with Apple's Lightning connector when it becomes available, enabling them to be used with models such as the iPhone 7, which has no headphone socket.

NOT 'ALL IN THE MIND'

Fortunately I'm still in the world of the iPhone 6S, although I have to admit I have never actually used my phone for playing music, other than for testing purposes. I should also confess that, while I seem to have accumulated quite a few pairs of them over the years, I don't actually like listening on headphones that much. I find them cumbersome to wear with the glasses I now need for reading, the listening experience somewhat

'There's a rich, well-focused, and informative presentation'





LEFT: Housings are angled slightly backwards, and pivot in two planes on their suspension. Within, the drivers are angled at 15 degrees for a more 'speaker-like' sound

immediately realised that the true magic of this design is the very fact that it does seem to create a soundstage before and around the listener, with not a hint of the 'all in the mind' effect.

A FREE-BREATHING SENSE

In other words, these headphones manage to achieve the same 'out of the box' presentation available from high-quality speakers when properly set up, making sounds and performers appear to exist in space in a broad, deep sonic picture. Not unlike the 800 D3 series speakers used as a reference in PM's listening room, in fact...

Whether with a high-quality personal player such as the Onkyo DP-X1 or on the end of the Chord Hugo TT, the P9 Signature proved able to pull off this trick again and again, surprising and delighting in equal measure. What's more, it doesn't just do it with atmospheric spoken word and drama – though I have to admit I did listen to everything from some *Fear On Four* episodes to a dramatisation of Len Deighton's *Bomber* from Radio 4. But no, the sound is just as convincing with a wide range of music, too, thanks to that free-breathing sense it brings to everything.

Yes, the P9 Signature sounds warm and substantial, as KH notes in his lab report [p67], but there's nothing overblown about the balance here, and the impression is simply of a rich, but well-focused, detailed and open presentation, in which masses of information is available to increase the enjoyment of the music.

Playing a straight-down-the line commercial recording like Mari Wilson's *Pop Deluxe* set of covers [WG Records WG 001], it's striking just how much detail

claustrophobic, and the 'shut-in' sound they deliver no substitute for a decent pair of speakers filling the room with music.

So, does that make me 'uniquely unqualified', to quote the memorable political phrase of summer 2016, to review the P9 Signature? Not really. You see I had an absolute ball with these headphones, whether plugged into my desktop system, run off various portable devices with and without the assistance of offboard DAC/headphone amps, or used with a 6.5mm adapter from the rather good headphone output of my main set-up.

And the moment when I realised when I was listening to something special? No, it wasn't with some beautifully recorded chamber work or achingly audiophile jazz set, but when I was typing the descriptive part of this review while listening to a BBC Radio drama via the iPlayer on my computer. In other words, not really concentrating on the *sound*, just getting a handle on the headphones – until I jumped as a door opened somewhere behind me and I looked round, only to

realise there wasn't actually a door behind me, and I was totally immersed in the 3D soundscape created for the play, and by the headphones.

After that I very quickly found myself a) paying very close attention to the P9 Signature's sound, and b) seeking out some more atmospheric radio just to revel in what the headphones could do. And I

HIGH-END ON THE HOOF

Is the P9 Signature the 800 D3 of headphones? Not quite, but B&W does say that the design draws more heavily on the company's experience with speakers than ever before. It's part of a trend that has seen many speaker companies move into the headphone market to support their traditional sales. KEF has its own headphones, while French company Focal has recently launched its second-generation range, culminating in the £3250 Utopia [HFN Feb '17]. The upmarket headphone market is booming, and so is the range of add-ons for hi-fi on the move, from hi-res personal music players such as the Onkyo DP-X1 and the excellent Astell & Kern range, through to portable DACs designed to be used with computers, phones and tablets. OK, so the Chord Hugo TT [HFN Dec '15] is perhaps transportable rather than pocketable, but the same company's little Mojo [HFN Jan '16] is very desirable – and affordable – while the same goes for the classy little Oppo HA-2SE [HFN Dec '16].

HEADPHONES



LEFT: The P9 Sig. is designed for use on the move and fold down into this Alcantara/leather pouch. A second short cable is supplied with iOS mic/remotes

these 'phones deliver about the shape and warmth of the voice, the snatched breaths and the tight, accomplished backing. There's a lovely intimacy to Wilson's singing on this album, and it comes over in spades through the excellent P9 Signature headphones.

SCALE AND RESONANCE

The sound is even more assured with a more obviously atmospheric recording, such as the San Francisco Symphony's recent set of Debussy orchestral works under Michael Tilson Thomas [SFS Media SFS0069]. Recorded live, it has an immediacy and presence that doesn't elude the P9 Signatures, which deliver all the sense of the space and acoustic around the performers, and have total ease with the dynamics of the recording, even when driven from the (admittedly gutsy-sounding) little Onkyo pocket player.

But while these headphones shine with portable devices, they keep on getting better when connected to mains-powered amplification with more welly. Playing the bleakness of Leonard Cohen's last album, *You Want It Darker?* [Columbia 88985365072; 96kHz/24-bit download], they bring out all the nuance of that distinctive voice while wrapping the listener in the intimate world of the album. Meanwhile with Sting's *57th & 9th*

[A&M 00602557174496; 96kHz/24-bit download]

they show their ability to slam out well-crafted rock such as the first single, 'I Can't Stop Thinking About You' (complete with hefty overtones of The Police in their pomp) while keeping the singer's voice focused and characterful. With the simpler, more lyrical 'Heading South On The Great North Road' a fine job is done with the close-miked acoustic guitar, which has real scale and beautiful resonance.

These are truly addictive headphones, then, living up to their luxury styling with a sound that's every bit as appealing. And coming from one who is far from being a 'personal audio' enthusiast, that's praise indeed! ☺

HI-FI NEWS VERDICT

Though not light at around 450g, B&W's P9 Signature headphones prove remarkably comfortable in use, and for long periods. Which is good, given that they sound superb, with a free-breathing 'out of the head' presence, excellent isolation from external noise, and the ability to throw the odd sonic surprise with the right content. From spoken word to rock or large-scale orchestral recordings, they're rarely less than excellent.

Sound Quality: 88%

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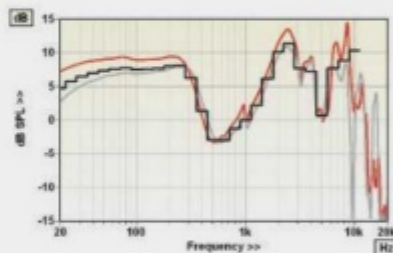
LAB REPORT

B&W P9 SIGNATURE

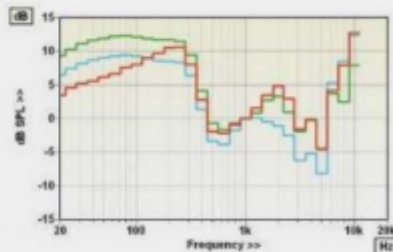
If conservative specification is still a British virtue, the P9 Signature is an exemplar. B&W claims a sensitivity of 111dB SPL for 1V at 1kHz but we measured 113.4dB, averaged for the two capsules. While this is a little below average for a modern closed-back headphone, it is still sufficient for the P9 Signature's principal intended use on the move. Moderately low impedance is employed to help achieve this. B&W specifies 22ohm but again is being conservative as we measured a low of 27.9ohm and high of 38.1ohm (20Hz-20kHz). This rather high variability will cause a 0.63dB change in frequency response with headphone amps offering a 10ohm source impedance, and 1.29dB from a 30ohm source.

Previous B&W headphones we've measured [P7, HFN Aug '14] have been characterised by excess bass, and this P9 Signature is no different. As the uncorrected frequency responses show [Graph 1, below], both capsules demonstrated a significant shelf-up in output at frequencies below a midrange minimum at 500-600Hz. Without this the usual peak in response at 2-3kHz would be about that expected but, as things stand, you could say the P9 Signature has an essentially flat response but for a wide suckout between 300Hz and 2kHz. Not apparent from these graphs is that, despite the controlled leakage design, there was difficulty obtaining consistent LF responses from both capsules due to earpad sealing issues. When the sealing is good, bass extension is exceptional.

The corrected frequency responses [Graph 2] emphasise the P9 Sig's LF-skewed tonal balance. Even the Harman correction [red trace] shows an 11dB peak at 250Hz (re. 1kHz). B&W employs compliant isolation to prevent capsule vibrations being transmitted to the headband but this is only partially effective: in the impedance test, carry-over of low frequency sound from the active to inactive capsule could clearly be heard. KH



ABOVE: Unequalised responses are essentially flat in trend but for a broad midrange suckout between 300Hz-2kHz, leading to a boosted bass (see below)



ABOVE: Third-octave freq. resp. (red = Harman corrected; cyan = FF corrected; green = DF corrected)

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL at 1kHz for 1Vrms input)	113.4dB
Impedance modulus min/max (20Hz-20kHz)	27.9ohm @ 5.8kHz 38.1ohm @ 6.4kHz
Capsule matching (40Hz-10kHz)	±11.8dB
LF extension [-6dB ref. 200Hz]	<20Hz
Distortion 100Hz/1kHz (for 90dB SPL)	<0.1% / <0.1%
Weight (inc cable)	446g