

THE 180-GRAM MYTH

In the world of audiophile LPs, 180 grams reigns supreme, the term referring to the weight of the preheated 'biscuit' of raw material from which the record is pressed. Standard LPs use 140g or even 120g, so is simply using more raw vinyl really advantageous?

After all, the stamper is likely to be the same, so it's not like you're getting deeper grooves and thus more signal through the stylus: heavier vinyl really just gains you a thicker disc. Is that a benefit? And which "special versions" are worthwhile?

To determine whether a 180g pressing actually sounds better than a conventional disc, we made some simple "thin" versus "thick" comparisons, starting with Sade's "Is It A Crime?" and listening 'blind'. The first version sounds decent, especially the tight bass and the crisp percussion, but the fact that this is an exemplary recording is only revealed in when we listen to the second version. Especially when all the musicians play together, this one sounds much more euphonic, Sade's silky timbre seeming to caress you.

Advantage 180g, then? No, actually: as it turns out, the more enjoyable one is the original pressing (1985), while the first version is from a later compilation (2016), pressed to 180 grams. Go on to Grace Jones's modern soul masterpiece "Nightclubbing", and while the (thin) original 1981 beats and bass are incredibly present, the later 180-gram version sounds less dynamic and flatter, as if there were more damping in the. Even with Curtis

Mayfield's "Curtis/Live!" we prefer the more harmonious first pressing of 1971, despite initial favorable impressions of a loudly overplayed 180-gram pressing from Italian label Get Back (2002).

In all three cases, the lighter, thinner disc is more convincing. Should we be surprised? Not really: one can imagine the original pressings were sourced from first-generation copies of the master tapes,

180G PRESSINGS ARE A WASTE OF RESOURCES.

with the new editions made from worse (digital) copies. Hang on, though – the 2014 Grace Jones pressing claims to have been "Remastered from original 1981 analog master" – although it doesn't say whether that was 'the' or just 'a' master? If this is the case, other factors must create the massive differences in quality.

As we explained in our "No magic" article in ST 7/16, a number of variables can be introduced: for example, the tape machine used for playback can be adjusted

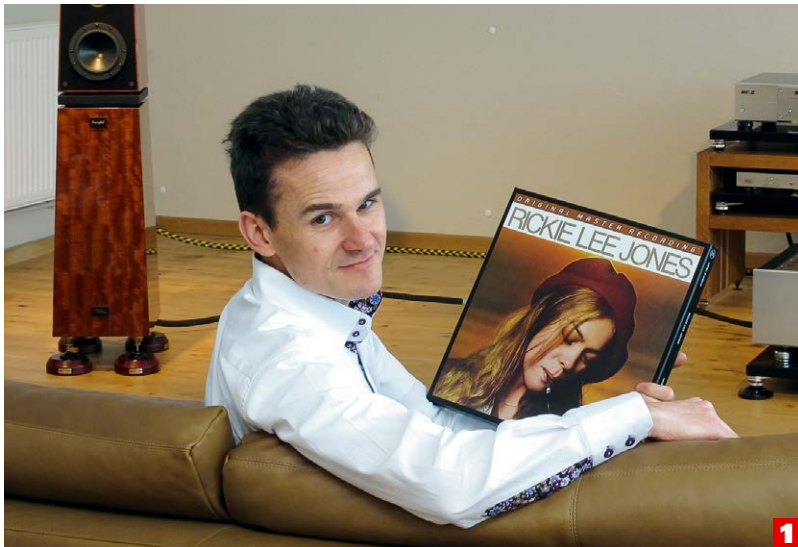
differently from the that used for the original transfer, or the cutting tool can be worn out when cutting the "master disc" (from which the stampers used in the actual pressing are made subsequent production). The material of the original master also has an effect.

Then, of course, there is the possibility of the sound being completely changed when the original recording is remastered or even remixed – in the hands of skilled engineer this can be a revelation, but there's no shortage of remasterings that are a case of 'Different, yes – but better...?'

Taking all this into account, it's hardly surprising there are examples where the sound of the thicker disc is "thick" sound is better: "Deodato 2" by Eumir Deodato (1973) sounds more – well – groovy in the Speakers Corner version of 2014 than it does in the 1973 US original, the earlier pressing having thinned-out bass range and brass that's too sharp.

So is heavier always better? Well, we can't make much consistent progress with listening tests so we turn to the experts, and put the question: 'Assuming two records are produced in exactly the same way, but are then pressed on different weights on vinyl, do they sound different?'

The answer is almost unanimously that



the weight of a record has no effect whatsoever. “The sonic advantages of 180g pressings are a myth,” says Janis Obboda of the mail-order company Connaisseur – and that view is supported by Kai Seemann (Speakers Corner), Jan Sieveking (Sieveking Sound), Günter Pauler (Pauler Acoustics), Daniel Krieger (Schallplatten Schneid Technik GmbH), and Dr. Peter Runge (Head of Production & Logistics, Optimal Media).

Sieveking points out that the thickness of the record slightly changes the angle of the tonearm, adding that if this becomes noticeable in the sound, the arm can be adjusted accordingly, or a mat used under thinner discs to counteract their increased susceptibility to vibration.

Hermann Hoffmann (Audio Int'l) is the sole advocate of 180g vinyl, his argument encompassing both the lower susceptibility to vibration and the lessened effect of groove deformation due to playing.

But isn't it proven that thicker discs are less affected by the infamous run-out? The idea sounds understandable at first glance, but Kai Seemann's experience is different: “In 1993 I had various album pressed in 140g, 150g and 180g versions, and within the different weights, the variance of distortion was much greater than from one weight to another”.

Those are amazing statements when you look around the current specialist vinyl market: look in the shops or online, and you'll hardly ever find a newly produced record without stickers such as “Heavy-weight Vinyl,” “180 gram audiophile vinyl pressing” or simply “180g vinyl” – all making their claim of superior quality. But if you ask the people actually making



the records, almost all say that weight is irrelevant: as Peter Runge puts it, “180g pressings are a waste of resources”.

So if these if these heavy pressings have no sonic benefit, and even damage the environment by consuming up to 50% more petrochemicals per disc, why don't we get the ‘perfectly good enough’ thin discs these days

Apparently, this is due to the “superior” feel of the finished product, perceived by the customer as being of higher value. It's harder to convey more ‘invisible’ – but ultimately more important – arguments such as transfers being made from the original master tape, not to mention the technical specifications of the mastering and pressing process. As the old joke goes in the cloth trade, ‘never mind the quality, feel the width’.

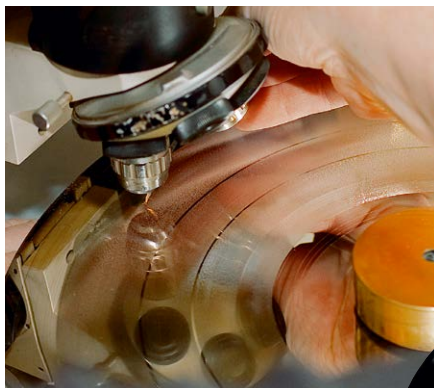
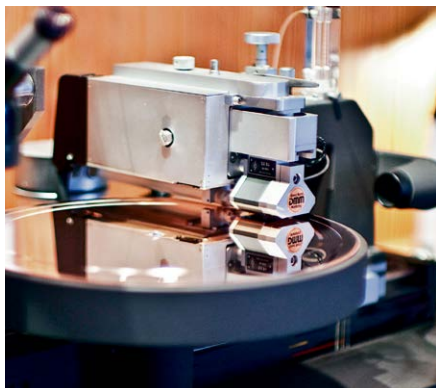
In the vinyl boom, however, weight is far from the only way to suggest high quality. What about the many special

Questions and answers: Jan Sieveking from HiFi and music distributor Sieveking Sound **1**, Kai Seemann from vinyl company Speakers Corner **2**, and Günter Pauler, owner of mastering and cutting studio Pauler Acoustics and Stockfish Records **3**. Other experts we interviewed were Janis Obboda (Connaisseur), Daniel Krieger (Schallplatten Schneid Technik GmbH), Dr. Peter Runge (Optimal) and Hermann Hoffmann (Audio Int'l).

editions? For example, do long-playing records running at 45rpm instead of the usual 331/3 really add value? Here the opinion is almost universally in favor of 45rpm, the only skeptic being Kai Seemann. He published the title “Johnny Winter: Second Winter” some time ago at both speeds, and says, “My customers didn't hear a difference.”

The proponents, on the other hand, have solid technical arguments: disk-cutting specialist Daniel Krieger says that “The speed of the path is higher, which is why the music signal in the groove is delivered more effectively” More information, in other words – just like the benefits of faster speeds when recording on analog tape.

However, Jan Sieveking adds that the prerequisite for this is high quality vinyl granulate in the ‘biscuit’ from which the disc is pressed: otherwise, background noise is increased due to the greater



Quality awareness is the be-all and end-all in record production, applying to both the cutting of the so-called „master disc“ **1** and the pressing process **2**. The quality of the vinyl granulate **3** and careful control **4** also have a positive effect. Controversial: In the eyes of most experts, colored vinyl is problematic **5**, and the standard black **6** preferable to clear vinyl **7** in terms of sound. Cutting (and playing) a disc from the inside outwards is no gimmick - for pieces that get louder towards the end, like Ravel's 'Bolero', there are definite advantages compared to the usual cutting/playing method **8**

amount of surface passing under the stylus – it's not just the music that's amplified in the faster discs.

We do the blind test, using two double LP editions of Diana Krall's album "Love Scene" (ORD), both mastered by Bernie Grundman. With the 45rpm the noise increases slightly, but this is more than compensated for by the apparently fuller presentation of the singer's voice. Yes, it's a fine nuance, but the advantage of this high-priced special edition seems understandable.

The "oreloB" -LP is a specialty of the Tacet label, the stylus running from the inside outwards. Is it just a curiosity? By no means: the experts agree this makes sense, provided that the music begins softly and ends loudly – as is the case with Ravel's "Bolero". The reasoning is similar to that of the 45rpm LPs: "At the outer edge of the record, the needle covers a larger distance per revolution than it does nearer the centre in the inside", says Krieger, "In the inner grooves accurate signal reproduction is more difficult because the stylus can be too large for

the finest deflections". Further out, however, loud and complex signals can "spread" better.

Another special feature – colored vinyl – is met with almost universal skepticism, with only Jan Sieveking begging to differ.

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»BLACK IS BEAUTIFUL«

True, Hermann Hoffmann doesn't see any fundamental problems, though he stresses that pressing plants would have to carry out sufficient tests beforehand, but Peter Runge from Optimal says the problems are more basic. His doubts mainly concern colors such as white, where the titanium dioxide used to achieve the effect causes noise during playback.

And Kai Seemann adds that clear vinyl is usually inferior to black: "We had black

and clear versions made of the same album, and sent copies to journalists and collectors. Some heard only minimal differences that they didn't care about, but most of them clearly preferred the black vinyl – so "Black is beautiful".

Half Speed Mastering divides the experts into two camps - Daniel Krieger, Jan Sieveking, Janis Obboda, Hermann Hoffmann are all for it, while Peter Runge, Günter Pauler, Kai Seemann are against – and the group also splits on the benefits of cleaning records, even new ones.

In principle meaningful all see the benefits of a clean disc, but while Krieger, Sieveking, Hoffmann and Pauler recommend this even for brand-new, unplayed samples – arguing this removes the release agent residue from the pressing process and provides a homogeneous distribution of the static), Janis Obboda and Peter Runge recommend cleaning only heavily soiled specimens, with Runge in particular warning that contaminated cleaning agents can actually damage a disc.

Seven experts, seven opinions? Despite some differences, we were rather surprised by their broad agreement on one topic: the superiority of 180g pressings is a myth.

Andreas Kunz