

# Traditiona Values

David Price talks to Spendor Audio's Philip Swift about the life and times of the classic British loudspeaker brand as it celebrates its 50th anniversary

s a student in London, I was very interested in hi-fi and would go to the original Audio T store in Oxford Street – and it was through the people there that I met Spencer Hughes and became a fan of Spendor loudspeakers", says Philip Swift. "I think at that time he had made a few loudspeakers but hadn't actually formed a company. John Bartlett – who ran Audio T – said: 'These are great, we can sell them. If I give you some money can you make some for me?' This was a measure of the enthusiasm that existed for that original product based on hearing it. Spen was still a full-time employee of the BBC, then..."

Thus was born Spendor's first loudspeaker 50 years ago – the 1969 BC1. It's a product that became one of the standout designs of the seventies. What really set it apart was its bextrene cone, as yet unused in the field of loudspeaker design. "The BBC needed a speaker that would let it hear a natural, accurate version of what it was broadcasting and had found that commercially available products didn't sound much like the human voice and didn't produce very accurate music. It launched a serious research programme, which identified certain elements within the loudspeaker – the materials, the way the cabinet was constructed and the response – that needed to be right."

The bextrene-coned Spendor BC1 was effectively the result of this research, and was admired for its unusually clean and smooth sound that was relatively free of coloration and distortion. It soon became an iconic product, setting the tone for the debate about drive unit materials that still rages today. It wasn't just Spendor's first flagship speaker, it was the ethos of Spencer Hughes' company made real – and you could hear the difference compared with the competition. "At the time, bextrene was a highly innovative solution", says Swift. "Most paper coned speakers didn't sound very pleasant, while bextrene worked extremely well."

#### **Materials matter**

Since then, things have changed dramatically in the field of materials science and new ways of using different materials have had a huge effect. "Today in drive units we've got access to carbon fibre and Kevlar, titanium and beryllium – and so much more", says Swift. "This has had a huge effect on almost every product and material on the whole planet. It wasn't that they weren't known about in the seventies, but it wasn't practical to implement them in any manufacturing process. There are even some materials used in the NASA space programme that have ended up in hi-fi applications. In new Spendor speakers, for example, we use one material that was developed for cutting down internal noise on the shuttle when it was re-entering the atmosphere. It's a fantastic material, but very expensive. We also use another that's used to damp the vibrations in the nose cones of cruise missiles; it's painfully expensive, but phenomenally effective."

This is the ethos of Spendor. The company's story has been understanding how to best use materials innovatively and intelligently to get loudspeakers to sound good and perform well technically. I put it to Swift that the BC1 laid down a marker on its launch, flagging up a new design paradigm rather in the way that Alec Issigonis' Mini rewrote the automotive rule book. "With the Mini we had traditional British engineers who had a feel for things – not just the engineering, but a natural ability to think out of the box. I think that's

what Hughes had. He knew that you had to listen sensitively to the product and try to connect what you were hearing with what you were measuring."

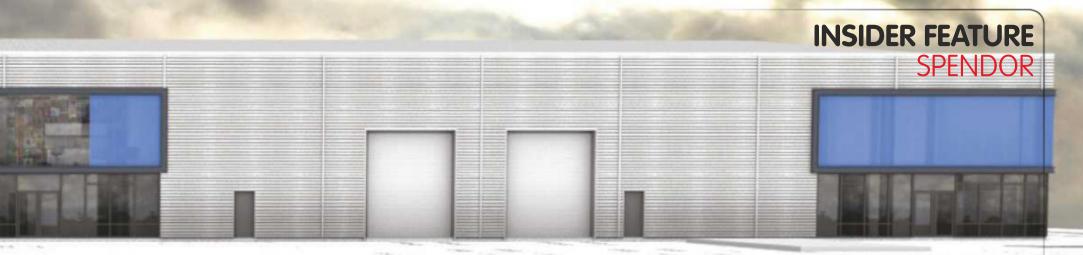
This is very much the modus operandi of the modern Spendor company. "Let's be clear," says Swift, "there has been a technical reason for every step forward in speaker design. The cone, its shape, its materials, the surround, actually getting a flat frequency response from a drive unit – all play their part. And then the way the cabinet is made is critical because it brings very significant coloration if done wrong. Then there's the crossover and

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the overall response of the loudspeaker – this has to sound natural and flat too, with everything backed up by iterative listening."

Swift remembers the seventies, when the received wisdom was that technical measurements defined subjective sound. "I was very much involved with challenging those assumed ideas of how things worked. We needed to get a healthy balance between the technical and the subjective. Quite a few of my friends had technical engineering backgrounds, and wanted to be able to prove the differences we could hear through measuring. It became a fascinating exercise, and we had no end of fun. Discussions with industry luminaries lead to Spencer Hughes developing the Spendor BC2, which dealt with a lot of the limitations of the BC1 in 1973. In the same year, the flagship BC3 was

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launched and this became a favourite speaker for a lot of serious professional audio engineering types, as well as consumers."

This was the young company's most expensive loudspeaker, a full-range design that did bass properly. "It became a reference for a great number of people", remembers Swift. "Hi-fi enthusiasts or not, folk could hear how good it was. Thanks to this, the rise of Spendor was meteoric. It came from nowhere and before long, simply by word of mouth, the whole world seemed to know about us. This was despite the rapidly

changing hi-fi landscape; for example, Japanese companies were opening up in the UK for the first time and becoming household names. We saw rapid engineering technical progress across many areas. After World War II there was a long period of austerity because materials and money were not around, but at this point things started to free up and people wanted new and better solutions for everything from hi-fi to cars. There was a rising tide and Spendor rose with it."

## Consolidating the range

The seventies was a lively period for Spendor, so what followed in the eighties was a drive to consolidate its range. The company focused its manufacturing on lower volume, upper market products such as the SP1 and SP2 – which were updates of the BC2 – as well as the Prelude. Spendor also started manufacturing the LS3/5a under licence from 1982 and continued with the BC3 until it was replaced by the SA3 in 1980 and then the S100 in 1989.

At the beginning of 2000, Philip Swift took over as owner and managing director of the company. He had previously made a name for himself in electronics, with Audiolab, which he cofounded with Derek Scotland in the late seventies. This brand proved hugely successful in the UK and beyond, but was



## Spendor still retains the materials-oriented, listening-centred approach of 50 years ago

eventually sold to TAG McLaren Audio in 1997. After Swift sold Audiolab, he got a call from a former distributor asking if he would like to get involved with Spendor. "I told him that I wasn't really thinking about getting involved with loudspeakers – but then thought: 'Wait a minute, Spendor?' It's almost like I am part of the company, and always have been. I thought: 'I have to do this'. I knew that it would have been bought by a Chinese company – which would have been fine, but they wouldn't really know what to do with it. So I knew I had to do it and that's how I acquired the brand…"

In hindsight, Swift couldn't have picked a worse time to do so. "There was 9/11, the dot com bubble bursting, the Afghan and Iraq wars – like all companies we were affected by that, but we worked our way through. It was more challenging in some ways than Audiolab, because back then we had the wind behind us so to speak – we had a strong hi-fi boom pushing sales along. With Spendor, it was the other way around – I have discussed this with a number of my close competitor contemporaries, over the years. Then came the credit crunch in 2008





and the first thing a lot of people did was to pull their product development. We actually thought: 'No, we really need to push this forward,' so we gained a lot of momentum and success through that. It is often said that if you can move forward in difficult times, then you come out the other side with momentum that nobody else has got."

#### Steadying the ship

"Seven or so years after I took over the reigns at Spendor", explains Swift, "I went into partnership with Ajay Shirke. He has always been an absolute audiophile, and now of course owns SME. We have worked together for many years, and I run this company with my own team. When I first got my feet under the desk, so to speak, I faced a number of challenges. I remember thinking: 'What do I need to change?' Then I phoned some of my customers to tell them what's going on. They told me that they weren't looking for change and wanted to be reassured that I wasn't going to spoil anything. So I tried to keep things steady and retained every member of staff. Still, I did see a real need to create more modern products in parallel to our traditional designs. The Classic line was great in the midband, but many people also wanted serious performance in the treble and bass, too."

"The Spendor S35 was in its first generation, and there was the FL line of floorstanders. They had lovely elements to their sound, but weren't perfect all-rounders. The Classic loudspeakers were still in full production and selling very successfully all around the world, except – oddly – the UK. So we decided to

develop a 'clean sheet' speaker called the S line in 2001, which looked radically more modern and was well received both sonically and aesthetically. It opened people's eyes because we showed that we could deliver beautiful sound across the whole spectrum, not just in the midband."

Swift says that people are always seeking out the best products, but are also reassured by a degree of stability from companies and their products. "When things suddenly

## "Our approach is that any energy should be dissipated quickly, not stored for a long time"

change, it worries people. If there is steady, evolutionary development, that gives people a great deal of confidence – as well as ensuring they've got a product that is worth some money to trade-in, of course. I often remind myself: 'Don't forget to keep everything good that you've got, whatever it is'. This doesn't happen enough both with products and companies. There are some who think they are immune to the laws of gravity – and also science, logic and business."

Without the S line, today's A and D lines would not have been possible, says Swift. "The S was something that had to happen to get us to where we are now, it was a very important first step. The A6 arrived in 2008 and the D7 in 2012 and we haven't looked back. The A line was effectively the reimagined S-series with substantial

## **DESIGN FOR LIFE**

Designing a Spendor speaker is a long process, says Philip Swift. "You've got a nice drawing on screen that is the shape, size, you've decided how many drivers and you've got an idea of how much it has got to sell for. This tells you what you can put into it, and what you cannot. At this stage, many companies will open up a catalogue and look for a driver that somebody else is making, to buy one off the shelf. At Spendor, though, we start thinking about the electrical and mechanical parameters needed..."

He continues: "If we don't design an entirely new driver, we will rework our own existing design for the job in hand. We may have to adjust masses and suspension and springs and the number of turns in the voice coil. Some configurations we use can make a big difference. We'll come up with a list of building bricks knowing that when we pull them all together we will have a good loudspeaker. We never throw things together, we'll always get the basic building bricks right because we know what we want."

Swift says that the Spendor design team is always listening. "We always want to hear if something has improved. You don't necessarily need to put it into a complete loudspeaker to understand whether something is sonically superior to what you had before, because you can do it by a very simple A/B comparison. The building blocks are the cabinet and the structure and the damping that may be in it. The arrangement for the porting is vital, as is the position of drivers in the front baffle. This is because the edges of a baffle affect the dispersion. We'll go deep down into the design of the grille. Most rivals don't use grilles, but we have designed ours so that they have minimal impact on the sound."

The whole thing is then knitted together through the crossover. Much of this is done through measurement, then final listening. "We don't go through an endless process of fiddling around, getting confused and going nowhere. We look for additional performance by trying new materials, ways of assembling the speakers and manufacturing processes – we design for manufacture as well as performance. When we have got all these things together then we allow ourselves to listen, then spend time on small changes and tuning until everything just falls into place naturally."

"For me", says Swift, "you need a split personality to be able to listen objectively and critically. You need to keep calm and tell yourself the things that should be addressed. You have to be able to absorb the whole picture, presentation, balance and feel of the sound you are delivering. Because ultimately that's what people choose the product on."





engineering changes; we had done a lot of work looking at everything right down to the finest details. For example, even the adhesives used for holding certain things together in the cabinet could make a difference to the sound. So, we had come up with a long list of things that we wanted to incorporate into these loudspeakers, along with fresher and more modern slim styling. That first D7 was in a way the spiritual successor to the classic Spendor BC1 – many people have remarked about this."

Terry Miles played a key role in the engineering changes to the A line. Having joined Spendor as Spencer Hughes' assistant

## Spendor's BC1 launched in 1969 and became one of the standout designs of the seventies

when he was just 16 years old, he is very much a part of the company's DNA. Along with Philip Swift and the rest of the team, he created the company's Laminar Flow port, which moved from a standard tubular port arrangement to a slotted-line type. It's claimed to make the speaker's sound in any given room more predictable, conferring lower distortion and better timing. At the same time, the new drivers got beefed-up motor systems and EP77 polymer cones.

"We looked at many, many materials which would be an improvement on the plastic material, from paper to metal", says Swift, "but this material just worked beautifully. It

had very low intrinsic cone breakup and is internally very well damped. It is actually very difficult to form into a cone, which is why we have to do it in-house. The drive units, by that time, all had phase plug arrangements so the nose cone in them gives the speakers an extended high-frequency response in the midrange and better phase characteristics. We also introduced new tweeters with a wide surround arrangement – including our very own LPZ design, which loads the diaphragm, equalising the pressure across it. The crossovers were substantially re-engineered with new topology to give us much greater ability to fine tune very small details of the response. With each increment, the loudspeaker becomes more integrated, natural and real sounding."

### Lighten up

Another interesting facet of Spendor loudspeakers is that the cabinet is designed to be as light and thin as is reasonably possible – the idea being to not store energy. "The majority of speakers are made with heavy damping material stuck onto the side of the box to kill any resonances," says Swift, "but we believe that having high mass in almost anything to do with audio is a bad thing. It is generally the case that the heavier and more solid a speaker is, the more energy it stores, and the slower the energy is released, and the more sluggish and leaden it actually sounds. Our approach is that any energy should be dissipated quickly, not stored for a long time."

Spendor's approach is and has always been distinctive, inasmuch as it's nowhere near as faddish as some loudspeaker brands. It

### THE PLASTIC AGE

"Bextrene is a form of ABS plastic, a crispy material used for putting wafers and chocolates in," explains Swift. "Back then it was primarily for packaging, and on its own was terrible, but it was light and with the right damping applied that combination formed the basis of a very good loudspeaker driver. It's naturally stiff, but rattly; when you apply damping – either within a material, its molecular structure or to it – you need something for it to work against. Otherwise, when there's a vibration, the material moves and you haven't gained anything."

After a long period of research, Spencer Hughes figured out how to mould an 8in loudspeaker cone in his kitchen with a reversed vacuum cleaner, a fire grate and an electric heater element. "He vacuum-formed the cone, so the BBC was able to prove that the theory actually worked because nobody had previously been able to make one," explains Swift. "Basically, he created the process that allowed the commercial production of 8in plastic-coned drivers.

"Of course, it's important to point out that a plastic cone on its own was not the answer – but plastic with the correct degree of damping produced much lower distortion. We know this now because we can measure it with modern instrumentation, but that was difficult back then. The appropriate plastic with the right damping incorporated either within the material or – in the case of the BC1 – as a hand-applied damping layer, produced very low mechanical resonance and break up. Coloration was much lower than the paper cones in use at that time. It's also down to the shape of the cone, the surround material and even the voice coil dimensions. It's far more complicated than one simple solution, but the correct use of bextrene was the key."



retains the materials-oriented, listening-centred approach of the original company of 50 years ago. Today's range keeps its Classic line – effectively traditional speakers done with modern materials – and also offers mainstream A line and higher end D line options. You may not see new Spendor loudspeakers every year, yet still the brand has real appeal for its consistency over the years – superb British build and styling, which is every bit as timeless as the sound •