



UNITING YOUR AUDIENCE FOR 50 YEARS



THE MARTIN AUDIO EXPERIENCE

Martin Audio

Martin Audio – 50 Years of Uniting the Audience

Dave Martin founded the eponymous Martin Audio in 1971 and was one of the leading pioneers of the professional and touring sound industry that we know today.

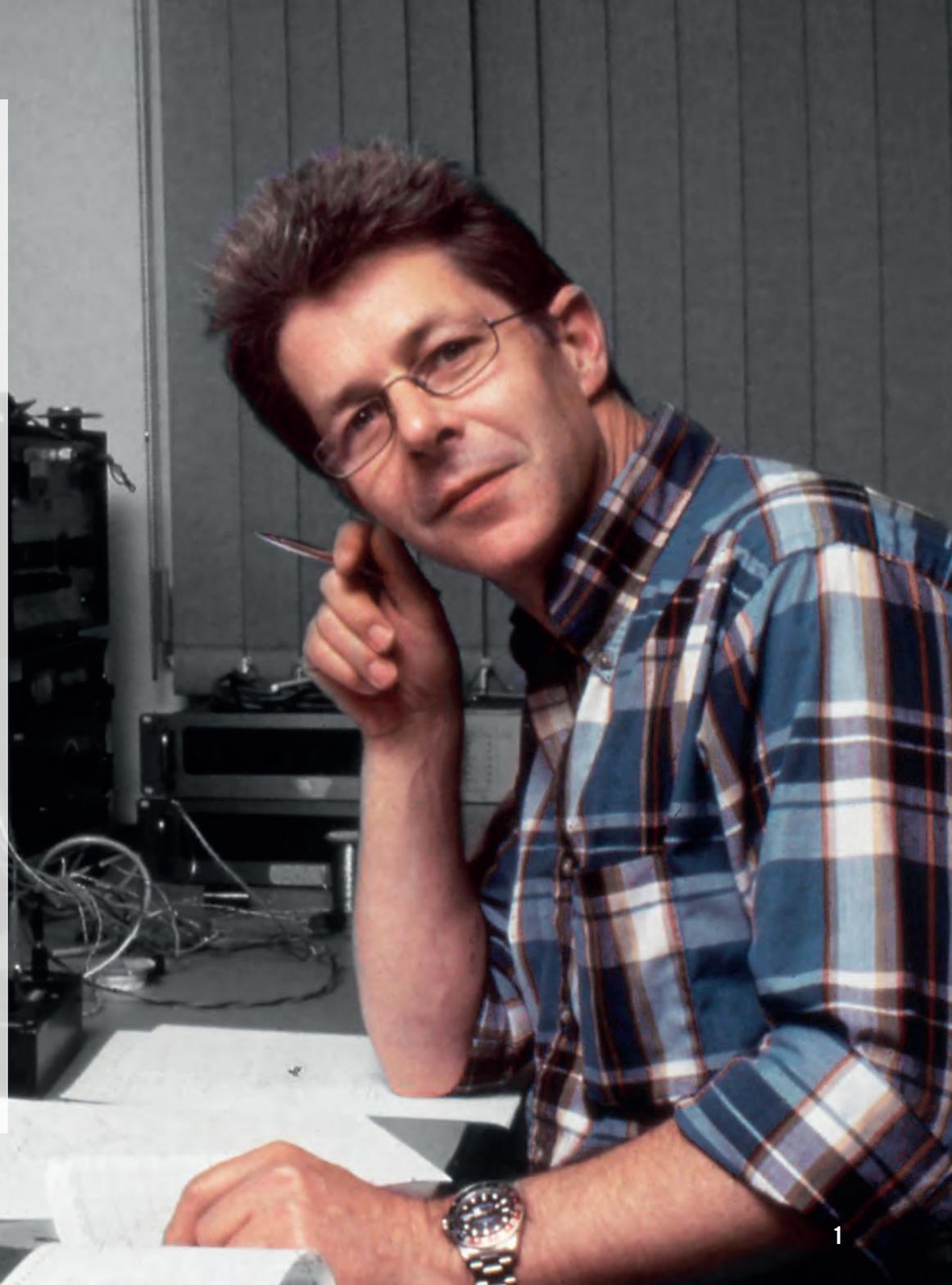
Two decades before meeting his untimely death in 1992, the Australian had defined the folded horn-loaded bass cabinet principle. And it was for this, and for the later MH212 'Philishave', which started the midrange revolution, that he will ultimately be best remembered.

Two decades further on and the legacy of horn loaded design combined with a passion for innovation culminated in the award winning MLA that transformed the industry with the introduction of optimised line array technology. A further decade on from this and Martin Audio's portfolio is now over a 100 products strong catering for every application, bringing innovation and value to the industry, worldwide.

The driving force from Dave's time to now has always been about the audience experience. What started as a desire to enable bands to play to larger audiences and be properly heard now firmly stands with the mission to deliver signature sound to ignite the soul in every corner of the venue, from front to back, be it an arena, theatre, place of worship, bar or club. The audience becomes one. A shared experience they will never forget.

Unite Your Audience
The Martin Audio Experience

David Martin at R&D bench



The Very Early Days



Supertramp gold album presented to Martin Audio



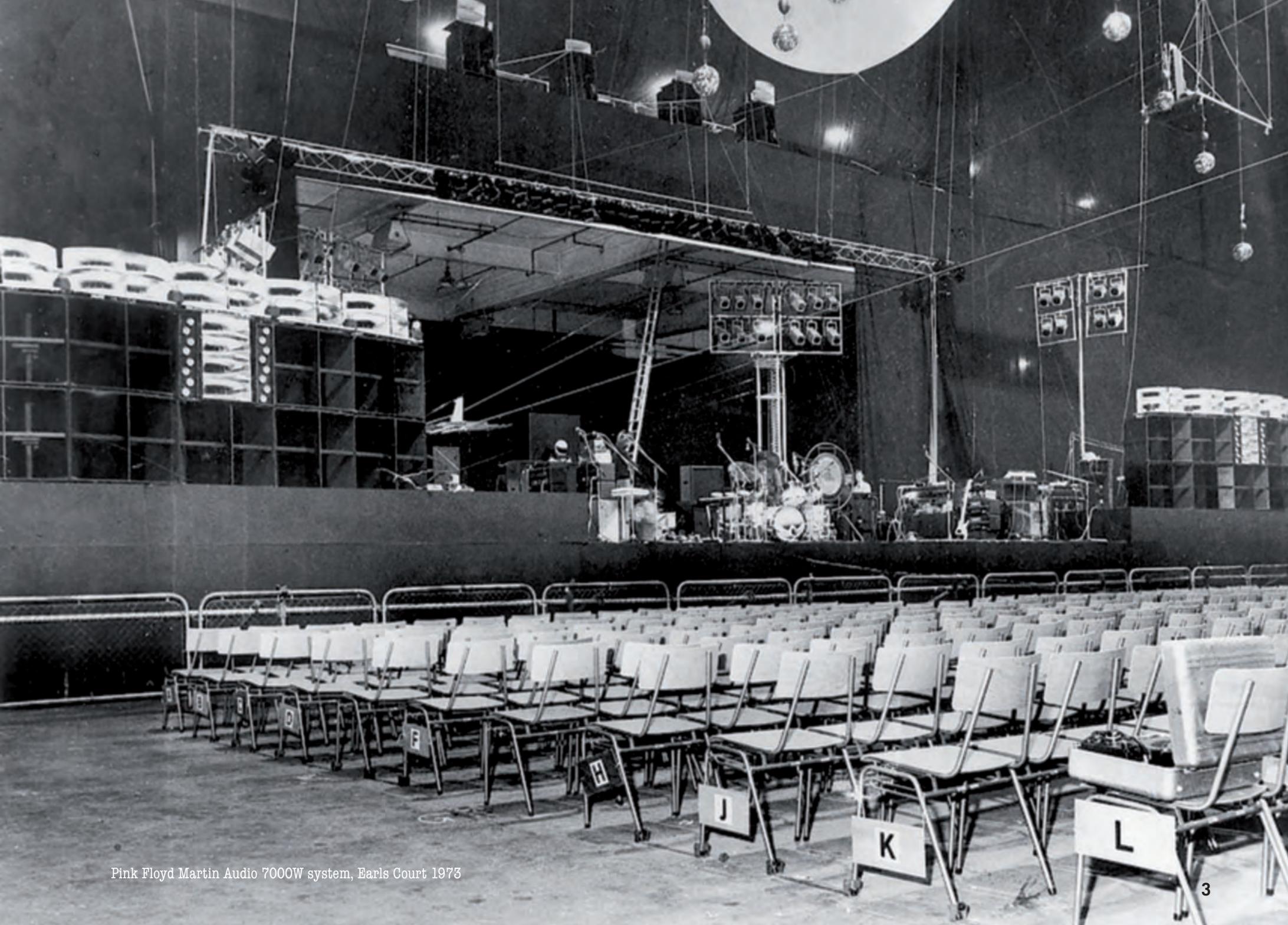
Dave Martin founder of Martin Audio



Martin Audio Bass Bin

The move to modular, horn-loaded principles heralded a new era in sound reinforcement after a generation of WEM direct radiator PA systems, which had dominated the early festival scene at the start of the 1970s.

Believing that bands could deliver a better audience experience at ever-increasing capacity venues, Dave Martin's early inspiration came from seeing the RCA W folded-horn cinema cabs when Iron Butterfly first toured with them. Because they measured 7ft high and weighed 500lbs the band didn't want to pay the return freight back, and so the system was sold to British rock band Yes.



Pink Floyd Martin Audio 7000W system, Earls Court 1973



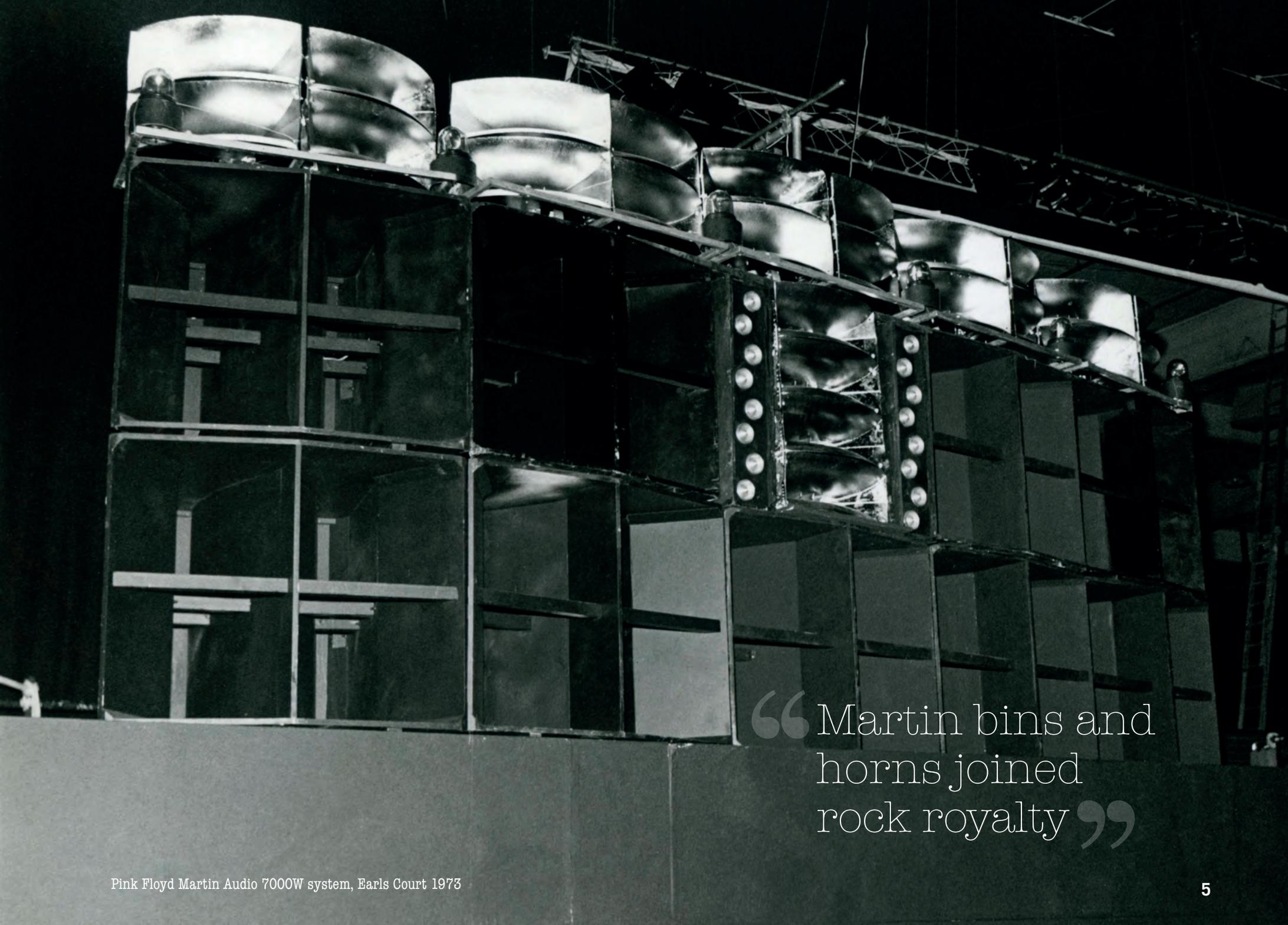
Martin, who had served his apprenticeship working with New Zealander, Dave Hartstone at IES, marked his UK PA debut at the Royal Albert Hall in October 1970 with these RCA 'W' cinema speakers and twin radial horns. He and Bob Auger installed the PA for a Johnny Harris concert for £51 and a bottle of scotch. "I bought the first speaker for £50, made an offer of £1 for the second which was accepted... and I rather wish I'd had more," he once quipped.

But because of the size, the inventor needed to rethink the folded-horn concept. The result of his research was to produce the famous 215 MK1 (2 x 15") bass cab, which was later transformed into the equally iconic, but way more compact 115 (1 x 15"), he quipped at the time, "by sawing it in half." The bass horn crossed over into Vitavox horns with JBL2482 compression drivers at around 500Hz — and this combination became standard fare for many years to come.

Martin's horn-loaded systems proved to be a big step up from the earlier direct radiator columns, which couldn't keep pace with the demands of the emerging progressive scene. With early adopters including Pink Floyd, ELP and The Who, Martin bins and horns joined rock royalty through the 'progressive' era of the early-to-mid 70s.



Prototype 215 MK1 bass bin, early 1970s



“Martin bins and horns joined rock royalty”



The Installation Breakthrough

'Dave Martin systems', as they were popularly known, also made a breakthrough in the installed world in the early-to-mid 70s when there was a tectonic shift from the old package tours, playing through pre-existing Odeon and Rank cinema systems, as American production values started to migrate to the UK.

Unsurprisingly, it wasn't long before Rank Cinemas visionary John Conlan — who went on to become the cornerstone of the modern leisure industry, at the helm of pioneering operations like EMI Dancing and First Leisure Corporation during the golden 'disco' era — picked up the mantle, after the first Dave Martin system had gone into the Roundhouse at London's Chalk Farm.

In 1972 Conlan received carte blanche to set up the seminal 'Sundown Theatres' (faithful Rank cinema conversions) around the suburbs of London — the year after Dave Martin had set out his stall (almost literally) by locating his business in London's Covent Garden market. And Martin Audio was central to his thinking.

The two men had been introduced by the late Ian Knight, following a sound system installation at the influential Roundhouse in North London which had been masterminded by Knight and his 'Implosion' partners, DJ Jeff Dexter, Rufus Harris and Caroline Coon (artist), activist and co-founders of Release, an agency set up to provide legal advice for young people charged with the possession of drugs. Implosion had grown out of the crew from Middle Earth Club and operated as a Release Trust with its Sunday afternoons at the Roundhouse featuring acts including The Who, The Rolling Stones, T Rex, Elton John and David Bowie.

The venue was responsible for producing a lot of breakthrough technology (and technicians) in the early days, and the Dave Martin bins formed part of that tapestry.



Rank agreed to talk to the sound genius, but weaned on WEM columns, they clearly had little idea of the power and muscularity of Martin's new generation sound. For this is what happened next ...

The Rank delegation made a presentation based on their own house cinema systems, which had functioned to an acceptable standard in their Top Rank Suites. But Dave Martin, meanwhile, had decided to design a beefed up version of his Roundhouse rig, according to Conlan. "When we lifted the Safety Curtain and revealed the Dave Martin system it just hit you right in the guts," he remembers, "These Rank guys just stood in the middle of Sundown Brixton [now the Brixton Academy] and said 'Holy f***!'"

Rank commissioned four Dave Martin systems — three large ones (for the Sundowns in Edmonton, Mile End and Brixton) and a smaller one for the West End venue (which later became Busby's), based on the 215 MK1 bin (before it was split into the 115) — plus the popular Vitavox horns in use at the time. These had to be installed in record time (since the venues were scheduled to open pretty much back-to-back) and among well known industry faces in the installation team were the late Terry Price of Tasco, Mick Whelan and Bruno Wayne.

"We agreed a price but then realised Dave didn't have the money to build them so we had to somehow advance it to him," John chuckled when recalling the scene. "And that really took some doing!"

Support advertising in prominent music magazine Sounds, announcing the openings represented the company as 'Dave Martin Sound'. It was well before Dave had thought about a logo or a corporate name for his eponymous operation, and was almost certainly the company's first ever trade ad!

But John Conlan also acknowledged that none of this would have taken place without the influence of the Roundhouse, and its notorious Sunday afternoon Implosions.



Martin Audio 1975 PA system with 115 bins



The iconic 115 bass bin

The Roundhouse Factor

Jeff Dexter, who had been pivotal in the success of iconic London mod (and later hippy) venues like the Lyceum, Orchid Ballroom Purley, and Middle Earth acutely remembers the period between 1969 and October 1973 — the date when Implosion finally ended.

“Dave [Martin] turned up in around 1971 — his girlfriend and mine knew each other and so we were introduced at the flat in Hampstead’s East Heath Road..

“We were doing Implosion and I had been using WEM systems, but Charlie [WEM owner Charlie Watkins] started to want Sundays off. Hiwatt stepped in, with Pete Webber and Phil Dudderidge, who had roadied for Soft Machine along with many others, and we announced the changeover from WEM to Hiwatt in our ads. We did a couple of shows and a couple of people came in with bins. RCA were popular at the time, as were the new Kelsey bins.

“It was during the Hiwatt era that people were starting to use these massive bin systems — and that was when my girlfriend’s friend said she had an Australian boyfriend, who had a new speaker system ...”.

Dexter records that this even pre-dated the Jubilee Studios era in Covent Garden as Dave Martin’s workshop back then on Brixton Road, near the Oval — ironically very close to where Charlie Watkins was based. “Dave had started building his bins above the old Taxi Service station and we listened to his first trials — I think using Celestion drivers, made from a metal cone. Charlie was very helpful and enthusiastic about Dave’s work, even though it meant tough competition to the WEM Festival Stack, but Charlie was always a diamond.

“I arranged an afternoon at the Roundhouse so we could test them all — WEM Festival System, Hiwatt, Kelsey, RCA, Gaumont/Kalee and Martin — all lined up in an empty Roundhouse and what we got out of Dave’s exponential horn was super. He also said that whenever the stage was set further forward he would put four bins in the gallery aimed towards the centre circle to avoid neighbour problems. He was a clever boy in that respect!

“At the same time I engaged with Allen & Heath who had built the first modular mixing system, and replaced the old WEM Audiomaster.”

Once the Dave Martin system was installed in 1971, all incoming artistes and technicians were expected to use that system. The installation went in and stayed there.

Jeff always contends that “we had better sounding equipment than the Rainbow at that time, mainly due to Dave’s speaker placement suggestion — and the only person who really listened was John Conlan!

“But I remember that as soon as Dave Martin had received several commissions he went out and bought a Bristol car!”

“What we got out of Dave’s exponential horn was super”

Jeff Dexter

The Stanhope Street Years

The pivotal years in Dave Martin's extraordinary success came after he moved his workshop to Stanhope Street, Euston, after four and a half years in Covent Garden — probably leased to him by the aforementioned Dave Hartstone; fortuitously, it was situated right next door to Midas consoles, run by Jeff Byers. Thus the Midas/Martin axis was formed, which was to produce the de facto touring system during one of the most fertile periods in the company's history.

With Pink Floyd using all Martin bass bins and HF horns, it's easy to see why PA companies such as Concert Sound, Entec and ML Executives in the UK wanted to buy into the Martin Audio signature sound, and as a result other leading prog rock bands like King Crimson and ELP became customers.

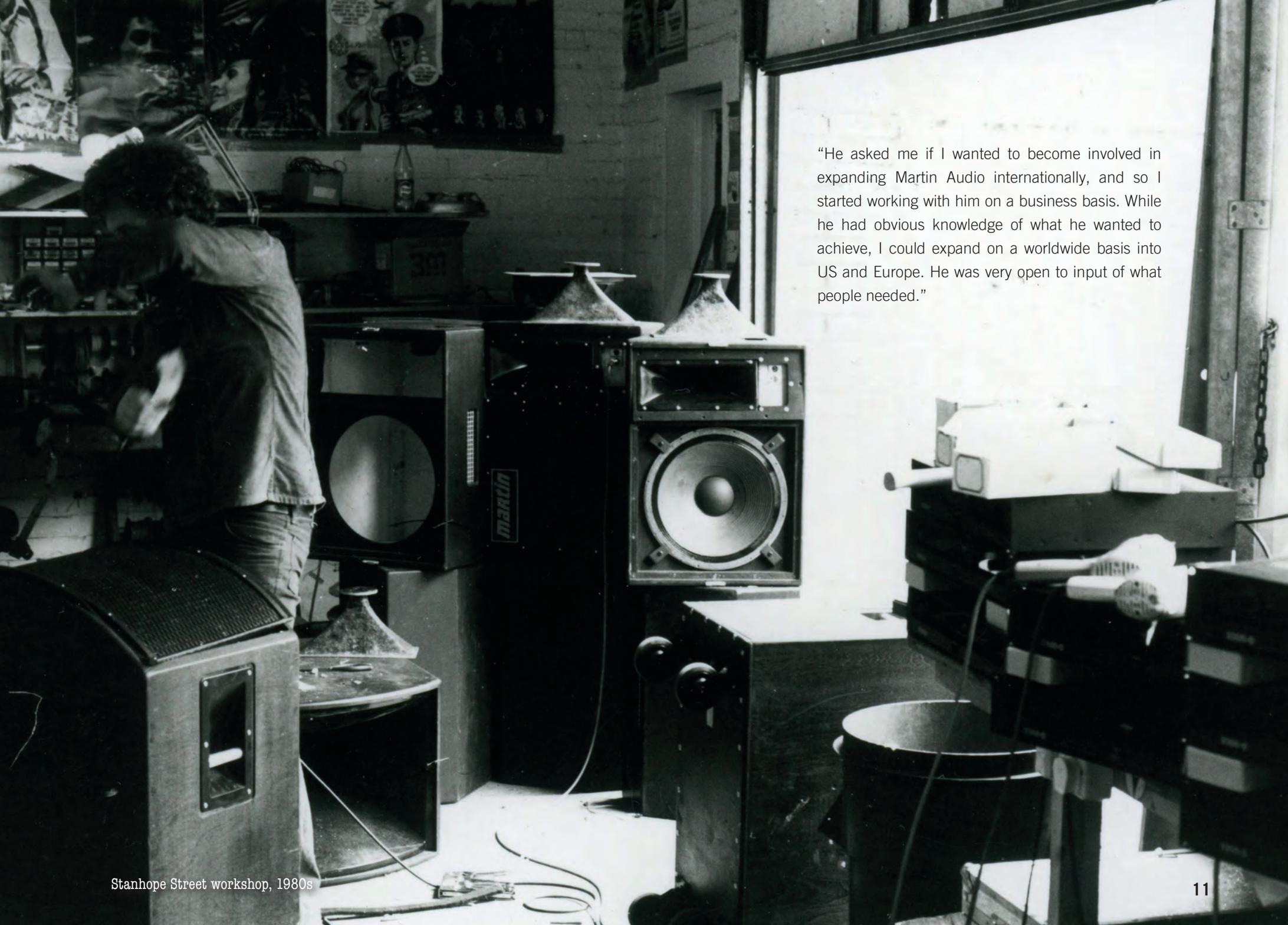
As mentioned earlier, Martin Audio's horn-loaded systems were a big step up from direct radiator columns. The design model during this era was still essentially two-way, with the bass bins going straight into Vitavox high frequency horns using phenolic diaphragm compression drivers. Whilst the early systems had the horns sitting on top of the bass bins, before long bins were being grouped together in a block, with the horns stacked on top of each other — a radical stacking principle that was to come to the fore a few years later with the Martin modular system.

With Martin and Byers pioneering their respective development programmes, a move towards complete PA system designs, using matched loudspeakers, crossovers, power amplifiers and multicore cables, was inevitable. The Midas/Martin Audio combo quickly established itself as the standard console and PA package for the serious rental companies as the empirical journey into electro-acoustic research continued.



Also a shareholder at the company between the mid-70s until 1981 was Nigel Olliff, before leaving with Midas engineer Chas Brooke to form the hugely successful Brooke Siren Systems (which became BSS Audio). He recalls that Geoff Lonstein, from Colosseum Acoustics in Johannesburg, also held a minority partnership in Dave Martin's company — while the office was largely held together by the popular Gwen Tory.

Although this was still very much a cottage industry, Olliff certainly arrived with the 'chops' to set up a business structure and international sales operation, and apply the knowledge he had acquired touring lighting with artists such as David Bowie and Roxy Music. "I also picked up a lot of audio engineering knowledge during that time but I got married at the end of 1974 and decided not to tour. Robin Mayhew was Bowie's sound man and he asked me to help rent out his Turner PA during the Ziggy Stardust period. We decided we needed to use some new monitors and that's how we got chatting to Dave Martin.



“He asked me if I wanted to become involved in expanding Martin Audio internationally, and so I started working with him on a business basis. While he had obvious knowledge of what he wanted to achieve, I could expand on a worldwide basis into US and Europe. He was very open to input of what people needed.”

As a result by the end of the 1970s, Regiscene's Zoli Schwarcz in France was starting to place big orders and Manolis Bofiliakos at Bon Studio in Greece had also taken note. The American revolution was also underway, with outfits like Delicate also heavily invested in Martin's bass bins.

But Joe Browne's Tasco had probably been first to kick-start the US momentum, and the 1975 system that saw Deep Purple playing large US venues (supported by Aerosmith) remained in the US as the basis for Tasco America. It then went out with Aerosmith and Ted Nugent. By the following year US tours, sourced in the UK, were awash with Martin Audio systems. "It basically outperformed the competition — it was not the prettiest but it was certainly the most dynamic," remembers Delicate Productions' Chris 'Smoother' Smyth.

All of which supported Nigel Olliff's theory that business developed mostly on the basis of demoing systems to people they knew, while continuing to develop leading edge equipment. "The LE200 wedge monitors were really fantastic — a big seller. We also developed the H350 2-way column speaker."

It wasn't long before Tim Boyle at Concert Sound started to take an interest. Boyle (who today heads Concert Sound Clair) was one of the early adopters of a Martin/Midas system in the 1970s. Like other rental companies it had evolved from a system purchased for a band, in this case Welsh rockers Man. Their manager Barry Marshall, along with Tim Boyle, who was their booker, were to become synonymous with Concert Sound in the years ahead.

The Martin/Midas system was chosen for the band by Boyle at a three-way shoot-out at London's famed Rainbow Theatre, hired for an afternoon. Beginning with 3 x 115 bins a side, Vitavox horns with JBL drivers and Midas power-block amplifiers, the Concert Sound inventory was to grow dramatically in the years to come.

Olliff recalls that they also met up with Keith Davis and Derek Smith at the Batley Variety Club (later the Frontier Club). The system they put together inspired the young Keith Davis to ramp up his own PASE rental company, before heading south to set up what eventually became Capital Sound.

Also arriving at the company in 1976, before leaving in 1978 to set up Volt Loudspeakers, where he remains Technical Director, was David Lyth. Having served time with Jordan Watts and Gale Electronics he brought with him an electronics degree and masters in acoustics. At Gale he had worked with the similarly qualified Bill Woodman — who shared the same nationality as Dave Martin — before Woodman set up ATC.

After designing the crossover for the LE200, Lyth was to become a central figure in the development of midrange, and what became the MH212 'Philishave'. The next episode was about to begin.

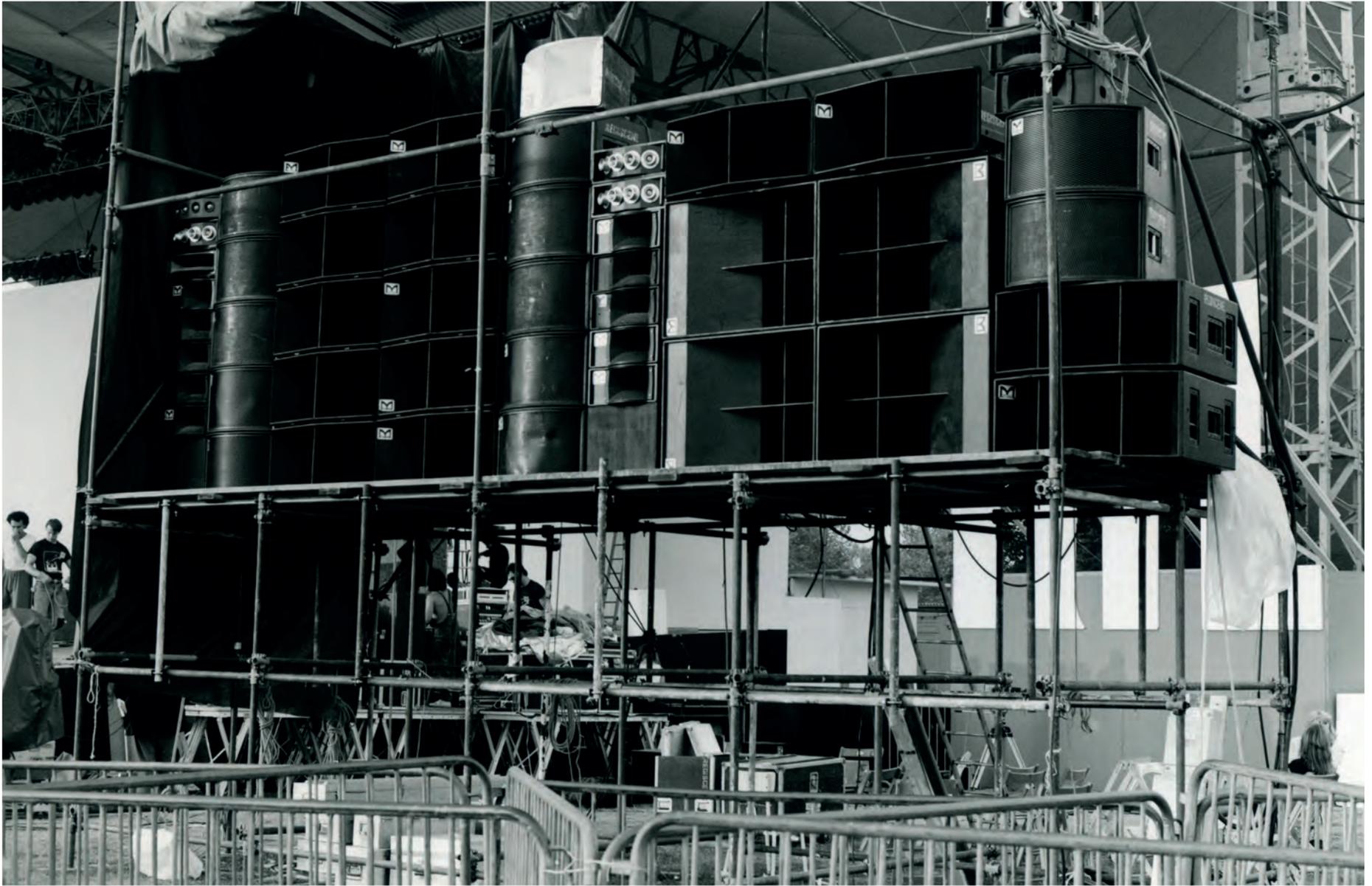




Dave Martin with Zoli Schwarcz of Regiscene



The yard at Stanhope Street, 1980s



Modular stack - 115, 215 MK3 and S2 bass bins - Regiscene tour, France, 1980s

‘Philishave’, Supertramp and Delicate



As sound systems generally improved, Tim Boyle was one of several people who noticed the relative lack of midrange. “Martin Audio came up with an interim measure known as ‘the threepenny bit’”, he remembers. This contained three ATC 12” direct radiators, the central one forward facing, and the outer two (on either side) on an angle. There was also a 2 x 12” angled mid (the MR212).

Lyth recalls, “Although we had designed the LE200 Dave’s real interest was clearly in gaining more midrange. He had this angled ‘threepenny piece’ but it didn’t really throw. He had the mid up to a point with the ATC 12’s, but it wouldn’t go above 800Hz. I remember he would bring in bands like the Rubettes to try new things out.

Based on compression driver thinking, I produced a phase bung for the ATC 12 and managed to get it up to 1.5 kHz. The problem had been releasing the mass/volume of air trapped in front of the cone. We then had to get the fibreglass moulding produced and that led to the MH212.”

Introduced in 1978, the MH212 quickly became known as the Philishave due to its resemblance to the electric razor of the time. It was compact, loud and crossed into the HF horns at 1.5 kHz. More importantly, it was the first ever dedicated midrange horn. The name Philishave resonated louder than the components from which it was made and it quickly became an industry standard around the globe.

“Dave knew what he was doing and was very professional, working to a high standard. He knew how to do things without cutting corners and I liked him immensely,” recalls David Lyth. But he modestly dismisses his own role in the Philishave development as “just something I did.” After Lyth’s departure, the following year Bill Webb was to fill the breach as head of the technical department, picking up the considerable legacy and evolving it further.

MH212 ‘Philishaves’ and HF2M horns



Popular folklore has it that the Philishave was produced for Supertramp to launch their Breakfast In America tour in 1979. The band, whose rig was eventually acquired by Delicate Productions of California in 1982, were one of a number of bands thankful to have more power in the voice/mid regions. But after the band had relocated to America's West Coast it was their production manager Spy Matthews, and British émigré Smoother Smyth, who made their mark by afterwards deciding to set up the rental company, Delicate Productions to accommodate it.

While Dave Martin continued to adopt a horn-loaded philosophy for maximum efficiency in minimum space, the MH212 was the deal maker and Smoother remembers that the touring PA system for Breakfast In America comprised 48 Martin Audio 215 bass cabinets, 36 212 'Philishave' mids, 48 Emilar compression drivers and horns, 24 Midas 'Block' amplifiers and 36 HH Electronics S5000D amps. A custom-designed Midas DA1 (Delicate Acoustics) 36/8 console was at FOH, along with three Klark Teknik DN27 graphic EQs, a Master Room reverb, two Brooke Siren (BSS) MCS200 modular crossovers and six dbx160 compressor/limiters.

On stage, there were 18 Martin LE200 floor monitors powered by H+H S500D amps. The mix was controlled by a Midas Pro4 32/8 console and the monitor racks housed eight Klark Teknik DN27 graphics and three Brooke Siren MCS200 crossovers. Mixing the band's lush sound was Russel Pope. "It was at that time that I came across the term 'the right way, the wrong way and the Supertramp way.' 'Delicate' thus became an aptly appropriated name for the new company when it started up in 1980.

Smoother remembers that sound engineer Russel Pope's eye for detail and keenness to experiment played a major part in the tour's success. "The one thing that has always been inherent in a Martin Audio sound system is the mid range — especially the low mid range frequencies.

"On the '79 tour the Philishaves were actually placed on their side one next to the other. The side to side spacing between them was critical and Russel kept a close eye on this and the placement of the high frequency drivers arrayed in the same manner."

Prior to Smoother Smyth arriving on the Supertramp tour, the band's sound system had already been utilised by other artists including Kansas. "The band ran this through their books as Delicate Acoustics and had sole ownership. It was during the 1979 Breakfast in America tour that I approached the band and management with the idea that after the tour we form Delicate Productions which would have to be self-sustaining.

"I saw that the band music publishing was under Delicate Music and I went for the name 'Delicate Productions' as a mark of respect to the band. The entire road crew would have the option to be equal shareholders of Delicate Productions or simply move on. When the dust had settled we had 14 shareholders. Today we have two active and two non-active shareholders."

Thereafter, early renters of the Delicate Productions Martin Audio sound systems included The Clash, The Knack, The Little River Band, INXS and U2. "By the time we wound down from the 1983 Supertramp tour the band owned equipment had been paid for. This was attributed to a great commitment from our crew members and the generosity and support we received from Supertramp and their management."

The British PA Evolution: Tim Boyle, Concert Sound

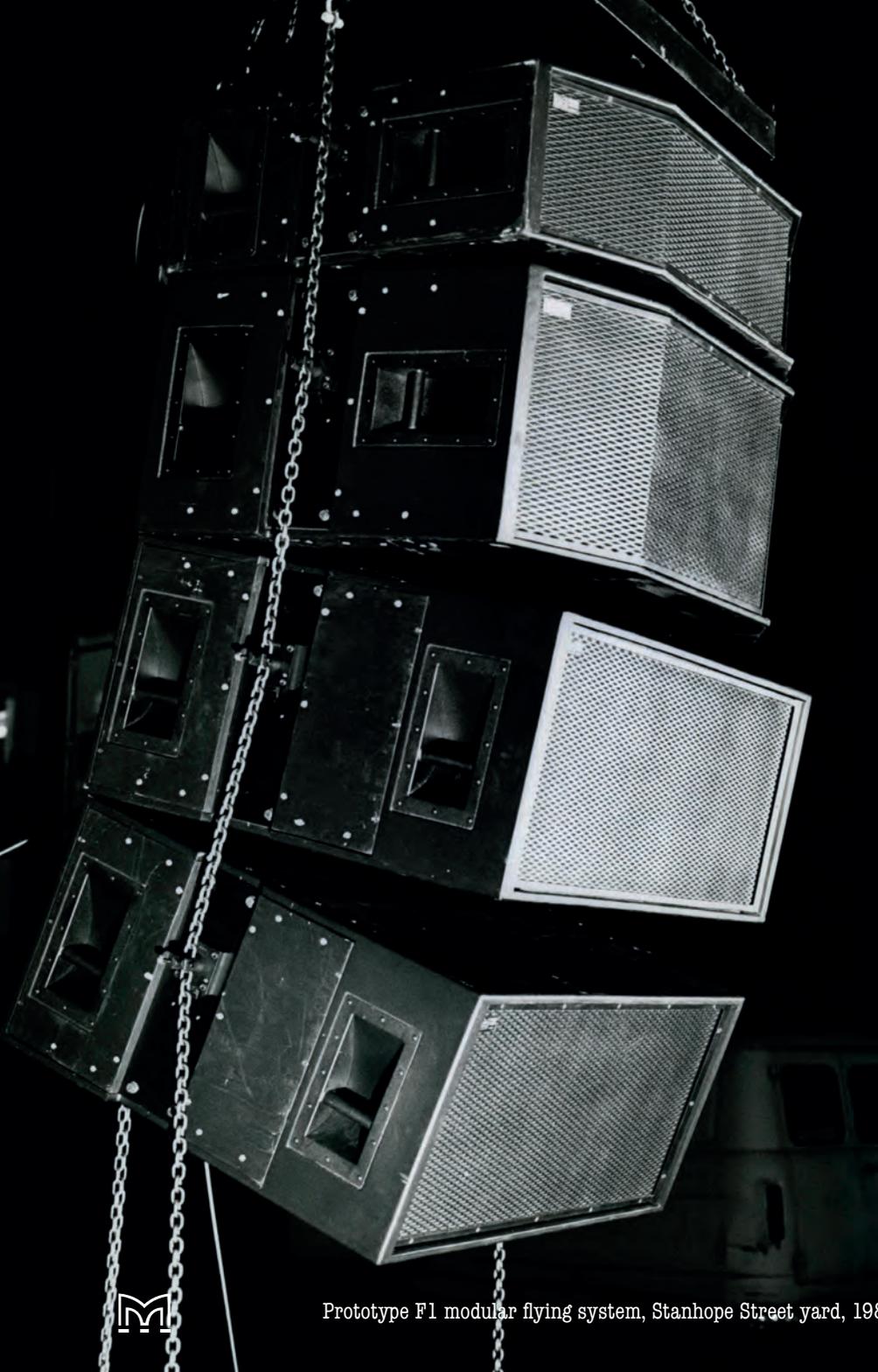
As with Supertramp, and so many bands in the 1970s, the purchase of their own equipment was to provide the foundation stones for the emerging sound and lighting rental industry that we have today.

When Welsh band MAN completed their recording deal with Liberty/United Artists it gave them sufficient capital to buy their own PA system.

Tim Boyle recalls that their first PA only lasted a few months, but then they toured with Nektar and heard the Midas/Martin system. “After hearing it they realised they had bought the wrong PA,” says Boyle. “Their manager, Barry Marshall [Marshall Arts] said he would put his hand in his pocket so we hired the Rainbow for a day and we tried three PA system including Midas/Martin, with the Midas blocks and amps. It was streets ahead of the rest and the Martin PA just sounded so much better.”

With Jeff Hooper mixing the sound and Rob Collins handling lighting and backline they had a formula for success. Tim remembers, “You had the crossover in the Midas desk, and there were Vitavox horns with JBL 2440 2” exit compression drivers before Martin Audio designed their own horns.

“The Vitavox horn had to go down a bit further because of the absence of mids [prior to the Philishave].



Prototype F1 modular flying system, Stanhope Street yard, 1980s

“The Martin Audio PA just sounded so much better”

Tim Boyle, Concert Sound

But every time the band brought an album out they changed the line-up, and by the time the band eventually split up Barry Marshall had bought the PA and I said, ‘Why don’t we hire it out?’

From a working unit in Battersea the company moved to Upper Street, Islington and then to a 1,000 sq ft warehouse in Watford. The new Concert Sound continued to take on more Martin Audio inventory. “We ended up with around 18 or 20 115 bass bins at which point Martin Audio brought out the Philishave and we would run three of those in the rig along with six horns.”

Concert Sound continued to upgrade their system, with other companies, such as ML Executives (The Who’s PA company at Shepperton Studios) and Entec following suit. “We kept the system for years,” reports Boyle. “We did Dire Straits all over Europe with a four way system — 20 or 30 boxes a side — and did the big Free Mandela concert at Wembley in 1988 with 98 x 215 MK2 bins, 60 Philishaves and over 60 HF horns plus JBL bullets.

“We later tried the F1 [prototype modular flying system] with Leo Sayer in Harrogate and it was beautiful, stunning, but Dave only had a few systems. I asked ‘when are you going to make more?’ but he soon brought out the F2 and the whole philosophy of flying systems changed from that point onwards.”



Keith Moon monitors, 1977



BIG
INLPENTHA



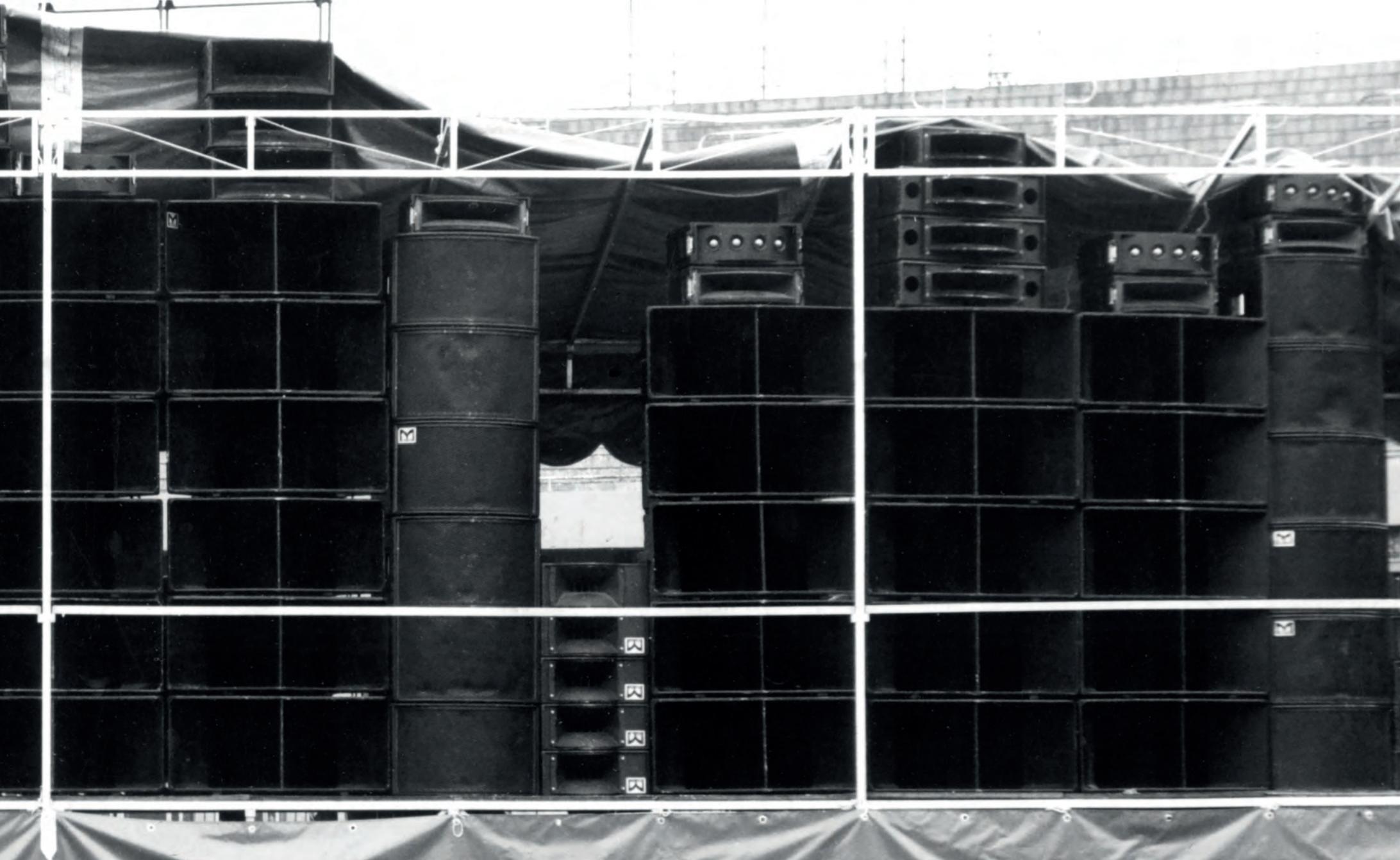
SOLO PR
Via Massar



Dire Straits, Juventus Stadium, 1981 - Concert Sound

ROBOTTI GENOINI
i. 240 int. 36 - Torino

dove mille lire valgono
BRUINO



“The bottom end
was ... wow!”

Keith Davis, Capital Sound



Keith Davis' original Martin/Midas PA, 1978

Keith Davis, Capital Sound

Martin Audio's predominant rental partner Capital Sound Hire, owes its lineage to the pioneering work undertaken by sound technician Keith Davis up in Yorkshire as far back as 1978. He had worked at the Batley Variety Club and on leaving, Keith set up PASE Hire with partners who would later purchase the Variety Club and reopen it as The Frontier.

The first supercharged PA system that PASE purchased was very much the paradigm of the upper echelons of sound reinforcement and was initially built around Martin Audio 115 bass cabs. But this grew to 12 of the more compact 215 bins and six MH212 Philishaves along with some JBL 2350 horns with Gauss HF4000 drivers and four JBL 075 bullets all driven with Crown DC300A amplifiers. The sound was mixed through Midas consoles and Martin Audio LE200 provided the floor monitoring. Keith later fitted a Martin Audio system into the renamed Frontier Club, a sound rig which would be far removed from the 'disco' norm of the day.

"When I started PASE I looked at various options. I came to Stanhope Street and met Nigel Olliff and Jeff Byers. I had also recently visited the BADEM Show (precursor to PLASA) and met [freelance monitor engineer] Dick Hayes at Entec who had used Martin Audio monitors, and The Who also used a Martin Audio PA.

"Dick said it was revolutionary and after all the rubbish before, the bottom end was ... wow! I looked at other systems but preferred the Martin Audio and after all the years of using Philips columns at the Variety Club this was a revolution." These went into the club where Derek Smith was the booking agent.

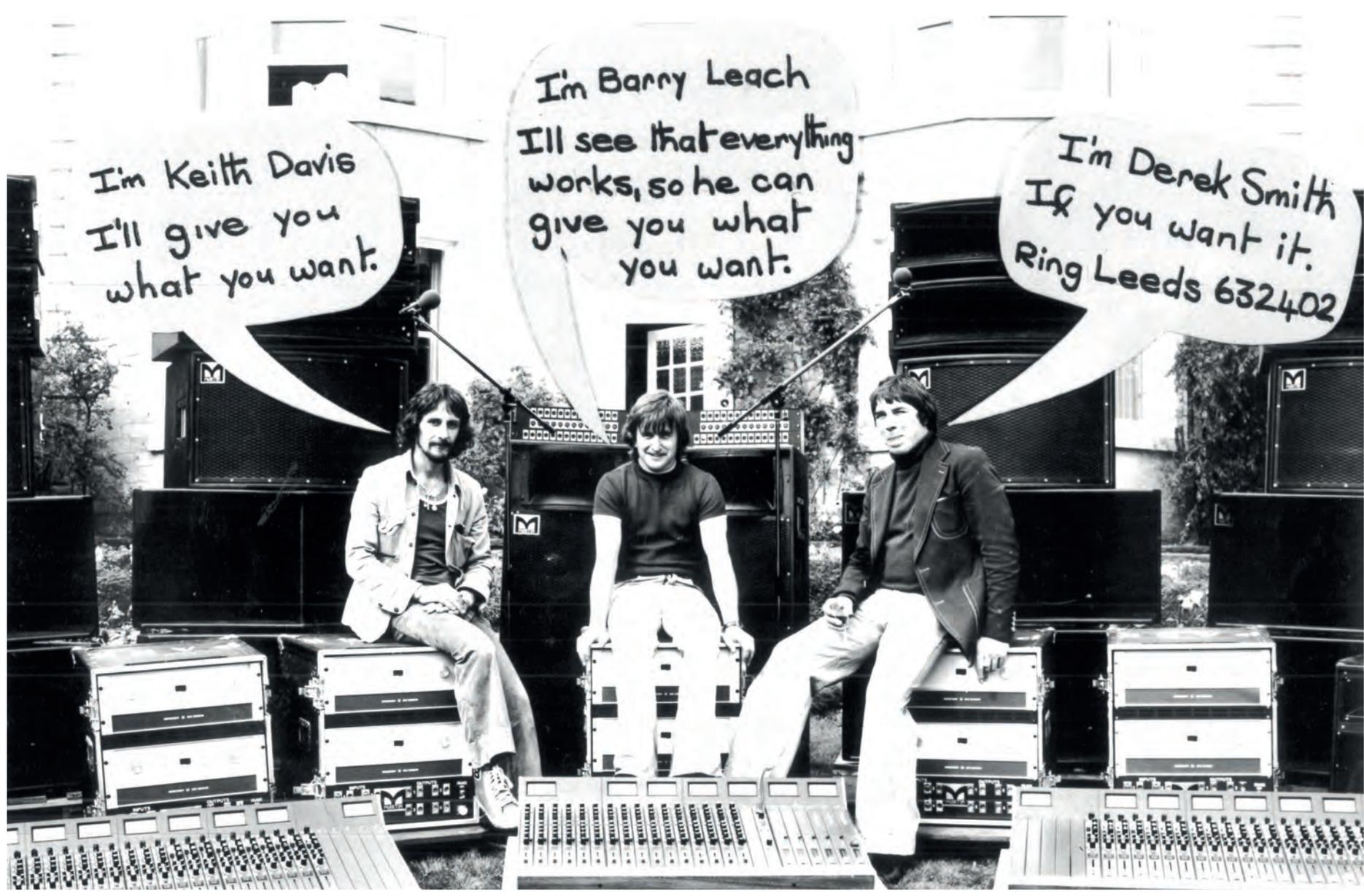
By 1982 Davis was down in London, running a company called ACS (Artist Concert Services) with Fray Miller and Shakin' Stevens — again with a Martin/Midas System — before setting up Capital Entertainments with John Tinline in 1985.

Keith Davis worked with other notable Martin Audio systems of the day, including RS1200 and RS800 cabs. In fact he supported Spandau Ballet with 24 of the RS1200 full range cab (with BSX subs) which had been designed in response to the call for a one-box system that could fly as well as stack.

In 1987 Dave Martin produced his classic F2 two-box modular system, with 15in hyperbolic horn. With its close coupling characteristics it was designed to give PA companies more versatility and he always maintained that you'd have to go right back to those early 215 bins to stand comparison.

In fact 1987 was to prove a pivotal year in more ways than one. Midas was taken over by Klark Teknik and Martin Audio moved from London to High Wycombe's Cressex Industrial Estate.

Ironically the first sound engineer to use the F2 was anything but a Martin Audio fan. Roger Lindsay fired the two-box system up in anger when Keith Davis rang him to say that Sade was looking for an engineer with a track record to mix her upcoming world tour.



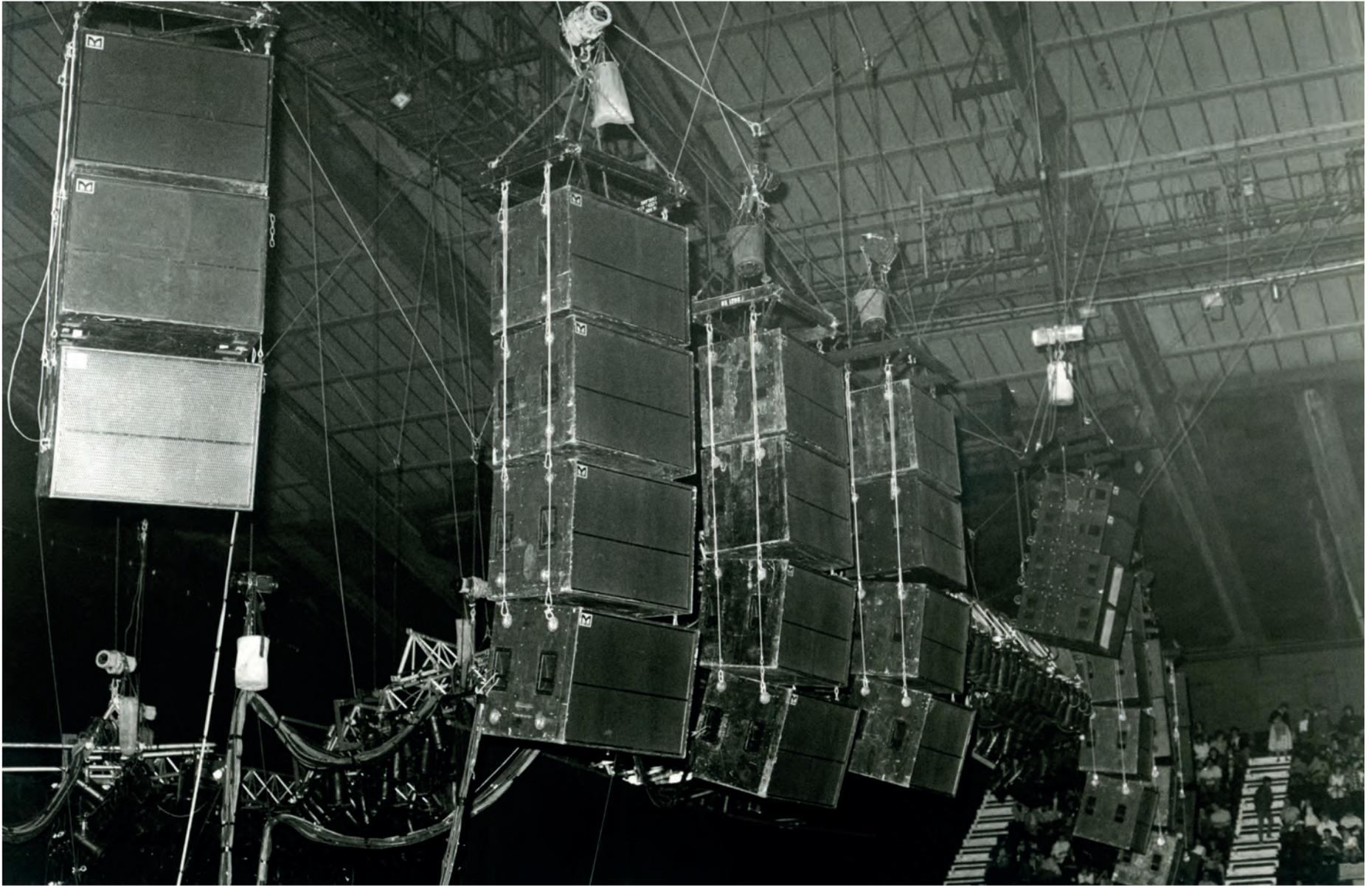
I'm Keith Davis
I'll give you
what you want.

I'm Barry Leach
I'll see that everything
works, so he can
give you what
you want.

I'm Derek Smith
If you want it.
Ring Leeds 632402



Keith Davis, Barry Leach and Derek Smith - PASE Hire



Flown RS1200 one-box system - Capital Sound 1980s



“So we went to a Sade rehearsal at Brixton Academy and Dave Martin was there with the F2 prototypes,” Roger recalls. “I remember joking at the time that Dave couldn’t have built it, because it sounded too good!

“Production rehearsals started in Atlanta and the system had never been used before, but Keith ordered 90 x F2 enclosures for the tour.”

With such a short delivery time, Mick Nash de Villiers [at rigging / engineering company, MAN Flying Systems] took the cabs to his warehouse and drilled them at short notice and the paint was still drying when they crossed the Atlantic. “They had to get a forklift truck to separate the cabs in Atlanta because they were shipped in containers to the States while the paint was still wet,” remembers Roger. “This was followed by about two weeks of on-the-road R&D trying to work out the ideal configurations for arenas and stadiums. It took a while but once we nailed it, it sounded sensational compared to most other systems of the day.”

But the breakthrough for Capital was when they picked up the Simple Minds touring account for outdoor arenas and stadiums. “It was a huge step up for us and all thanks to FOH engineer, Nick Baker. He had heard the system and was 100% on our side. Although a lot of people said we were not big enough to support the tour, he backed us.

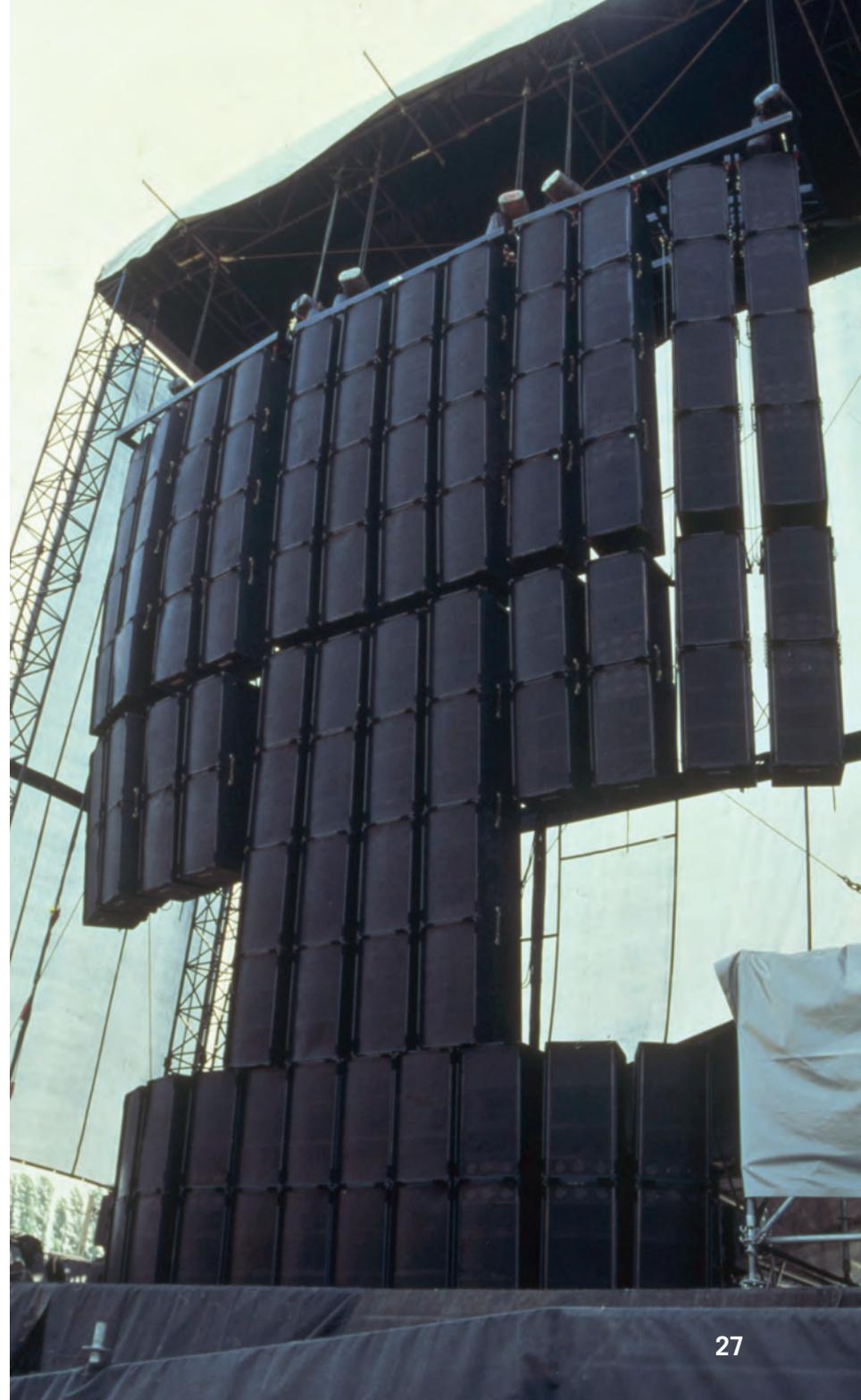
“The F2 modular system was very adaptable, it could handle long or short throw or be used as a combi cab and it always sounded good.”

When John Tinline left to start Encore, Keith set up Capital Sound Hire in September 1989 with the F2 system at his hub — subsequently adding significantly to his F2 inventory. In fact Simple Minds were to become synonymous with the system during the passing of the decade.

Capital Sound has continued to support Martin Audio right through their Wavefront and MLA development programmes. “We must have bought thousands of boxes over the years.”

Left: Simple Minds, Capital Sound – F2 System, 1980s

Right: Torhout-Werchter Festival, Belgium – EML, Capital Sound and Ampco, 1994



Cooper Cannady, Owner, RMB Audio

My first recollections of Martin Audio would be 1982—I don't recall the show or the venue but I remember being totally mesmerised by the Martin Philishave cabinets, the MH212 boxes in column stacks; about two to three stacks a side.

I was absolutely astonished with the capability of those cabinets. The rest of the system was really good, but the cabinets were what attracted my attention and marked the point where I started delving in to find out more about Martin Audio as a provider and the cabinet design, and within six months, I had four of those cabinets in our inventory.

It was the compression, the force and impact of the sound, not just the loudness. I've never heard vocals, a guitar or drums sound like that. At 150 feet, you could feel the snare drum slap you in the face and feel it on your skin. It was one of those moments where I was very much transfixed on the midrange devices. Later I found out about the folded bass cabinets, and then the split bins, which I added to my inventory.

My first conversation with Dave Martin would have been in 1984 on the phone while he was in New York at an AES Show, a discussion of the split bins and the other products we carried at that time. I found Dave to be a very sophisticated businessman, tremendously wise. He was extremely helpful in discussing the design of the Philishaves, the purpose of the split bin and other Martin Audio speakers. That was my first introduction to Dave Martin. The high level we set in the first conversation continued in the following years. I found Dave to be very business-like, very analytical, technical and straightforward.

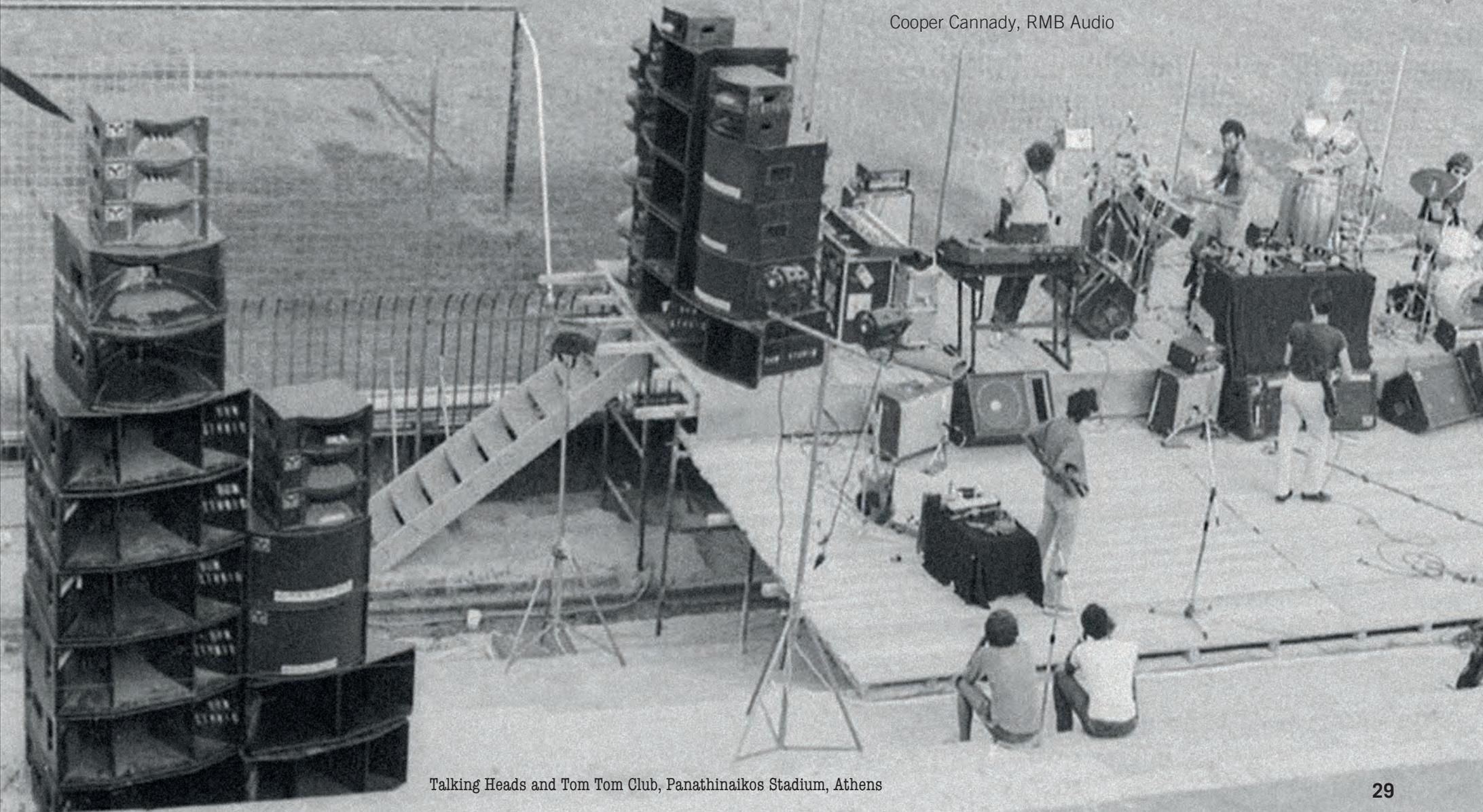


David Martin with the FR3 system, one of Bill Webb's earliest designs for Martin Audio, 1981

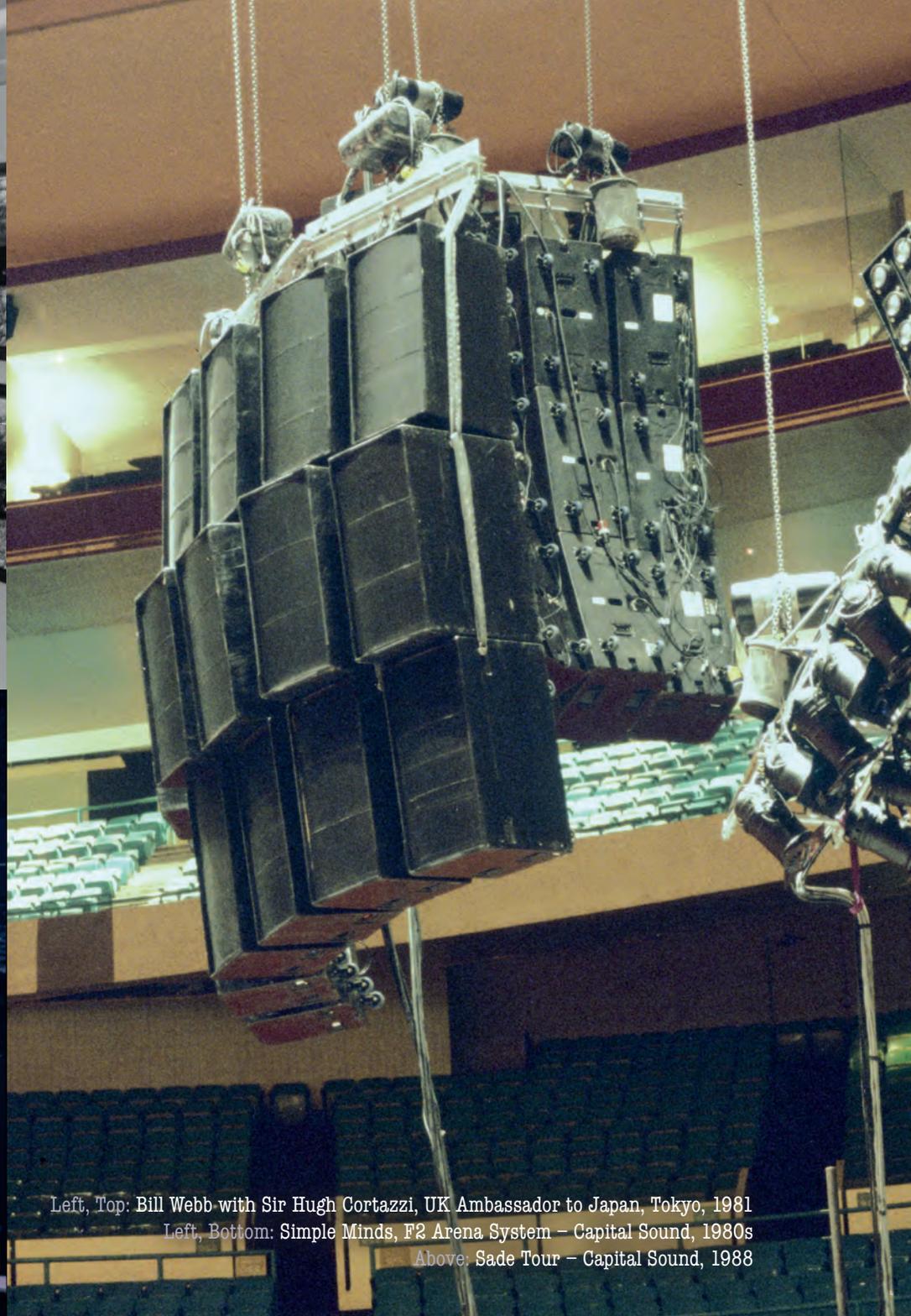


“I’ve never heard
vocals, a guitar or
drums sound like that”

Cooper Cannady, RMB Audio



Talking Heads and Tom Tom Club, Panathinaikos Stadium, Athens



Left, Top: Bill Webb with Sir Hugh Cortazzi, UK Ambassador to Japan, Tokyo, 1981
Left, Bottom: Simple Minds, F2 Arena System – Capital Sound, 1980s
Above: Sade Tour – Capital Sound, 1988

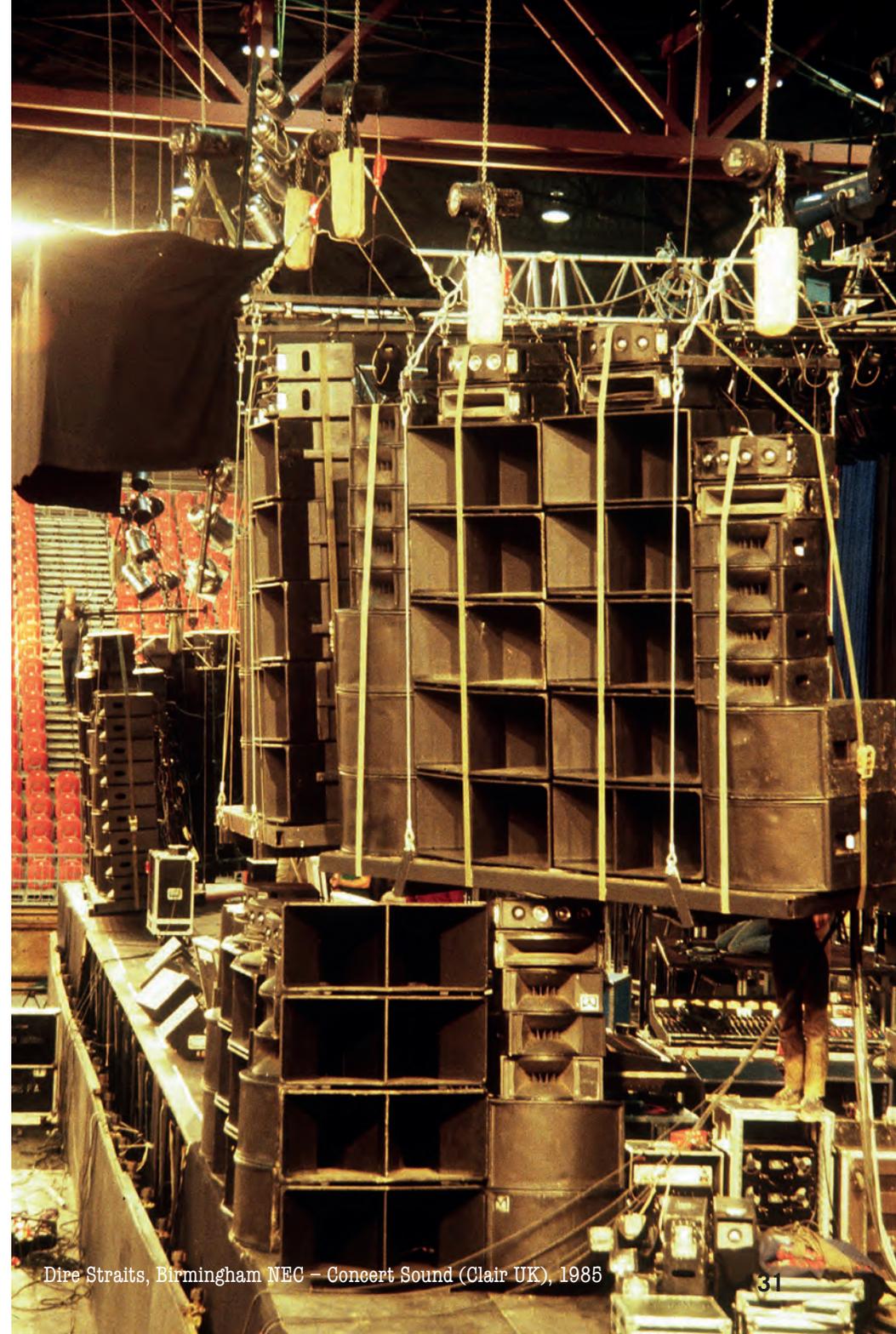


One of the most perceptive things he ever shared with me was that he didn't want to be the "speaker cabinet builder for the world." He wanted to build the best product that he could for the users who adopted that product, and he was happy to support that. We developed a very good relationship understanding exactly what and whom he was designing for.

The Philishaves had so much sonic signature to them, vocals sounded unbelievable. Up until then, most systems were at best two-way and this was a three-way system with a high compression ratio in a very powerful mid device and the energy from it was just amazing. Once you heard a pair of those together, it was a signature you'd never forget. It was the thing that enticed me because before that it was two inches screaming at you at some distortion level and basically Dave had created a three-way system that was cutting-edge and moving away into a very sophisticated area.

“Dave had created a three-way system that was cutting-edge”

Cooper Cannady, RMB Audio



Dire Straits, Birmingham NEC – Concert Sound (Clair UK), 1985



David Martin and David Bissett-Powell with visiting distributors



The 1990s – A Period of Great Change

For all his touring and design expertise, Dave Martin hadn't been able to really grow the business to the extent his ideas deserved.

He sold the company in 1990 and was to stay on as managing director for the next 18 months. It was hoped the move to High Wycombe would mitigate the huge costs and shipping problems associated with having a central London address, but it was eventually clear that what Martin Audio needed was someone dedicated in the role of MD, which would allow its founder to concentrate on loudspeaker design and development.

Coinciding with Dave developing outside interests, David Bissett-Powell came in as MD in April 1991, with Dave agreeing to stay on a part time basis as engineering director.

However, in late December 1992, Martin Audio's staff were quickly brought down to earth from their Christmas celebrations when they learnt that their founder was missing, presumed dead — apparently murdered following a confrontation with his business partner Colin James (in a non-audio business venture).

Dave Martin's body was never found, but his former partner was arrested and convicted of his murder.

Meanwhile David Bissett-Powell continued about his business with authority, ensuring that the company would enjoy a 20% year-on-year growth up to and beyond the time they moved to their luxurious new purpose-designed facility — across the Cressex estate at Century Point in 1996.

If it was going to be a world contender and deliver strong growth, the new MD realised that Martin Audio needed to diversify from its touring heritage.

It came about after the MD noticed increasing enquiries from customers who wanted to install the F2, but he reasoned that the touring products were over-engineered for this type of application.

Hence from the beginning of January 1992 the company began development of installation-specific products, with the EM architectural range completed in time for the PLASA Show that September. The multi-component EM series would see them become a major player in installed sound at a time when both the retail pub chains were rolling out huge high street estates and the nightclub world was also burgeoning. The move to the contractor market had been crucial ... and timed to perfection.

One of the new MD's first moves had been to bring back the long-serving Bill Webb, who had meanwhile become independent — undertaking design work for the likes of Turbosound and Trace Elliot, as well as contributing to the EM Series. Bissett-Powell reasoned, "I needed someone on the inside and I had tremendous respect for Bill's work." He was immediately made Director of Engineering.

Bissett-Powell also brought in Martin Kelly in sales, and together they began to expand the distribution network in Europe and into Australia and China, where there was a great appetite for the architectural range.

At the same time no-one was about to take their eye off the core touring business, and a recognition that the F2 system was getting long in the tooth led to Bill Webb designing the innovative Wavefront 8 and 8C. Augmented by the W8S and WSX subs, the tremendously successful Wavefront touring series reached the market in 1995 — baulking the widely held view, once and for all that "if it doesn't have a 2" compression driver it won't sell."



The Joint, Hard Rock Hotel, Las Vegas - F1 and LE Series install, 1990s



Chinese distributor visit, 1990s



The assembly floor, Lincoln Road, 1990s



'The Container' stand, Plasa, Earls Court, 1990s





Riding The Wave with Bill Webb

Bill Webb takes up the story. “The thinking behind the Wavefront 8/8C touring system was for a versatile flown system that could be arrayed horizontally and curved in the vertical plane as well. I also placed emphasis on providing extended low end and extended high frequencies, in line with the changing nature of nineties music.”

This called for an array made up of near-full range enclosures that went down to 120Hz, plus ground-stacked subs. To cover the 120Hz-800Hz low-mid band, Webb initially went for a 2 x 12” horn arrangement. This was the W8, soon to be followed by the more popular W8C Compact with a single 12”.

“The rest of the frequency range from 800Hz and upwards would normally be covered by a large format compression driver but this is where we took a different approach.

“Large format compression drivers with 3” or 4” diaphragms get pushed to their limits in touring sound and are called upon to operate over four octaves or more. They suffer from distortion, power constraints and a falling response requiring a lot of HF lift at the upper end of the band. With the W8 and W8C, we replaced this single driver with a combination of a 6.5” cone hi-mid horn and a 1” exit horn dedicated to extreme high frequencies.

It is characterised by its smooth, transparent sound and clarity at levels which would be very distressing if produced by a single large-format compression driver. The frequency response of this 6.5”/1” combination is extremely smooth, both on and off-axis with no noticeable peaks or troughs and it is this level of refinement that makes the W8C so special.



The short, toroidal phase bung of the 6.5” cone driver is particularly important in helping to keep the coverage pattern uniform.

“The versatility of the W8C meant it could also be used in small ground-based systems with two boxes a side. At this scale, it is incredibly clear, musical and exciting to listen to and specially modified W8C’s now provide the mids and highs in the award-winning sound system in The Box — the main room in the Ministry of Sound,” continues Webb.

The shift from a 2” compression driver to the 6.5 “cone/1” combination was a milestone and remains a cornerstone of Martin Audio philosophy. Webb explains, “I put a 2” driver and the 6.5”/1” combination side-by-side, set them up so that they produced the same output and listened at very high levels. Every time I switched to the 2”, I literally took an involuntary step back, it was so painful in comparison.”

The Wavefront series grew to include a number of smaller cabinets for mission specific tasks (such as theatre) — some borrowing technology from the larger units, or otherwise based on conventional reflex-loading techniques.

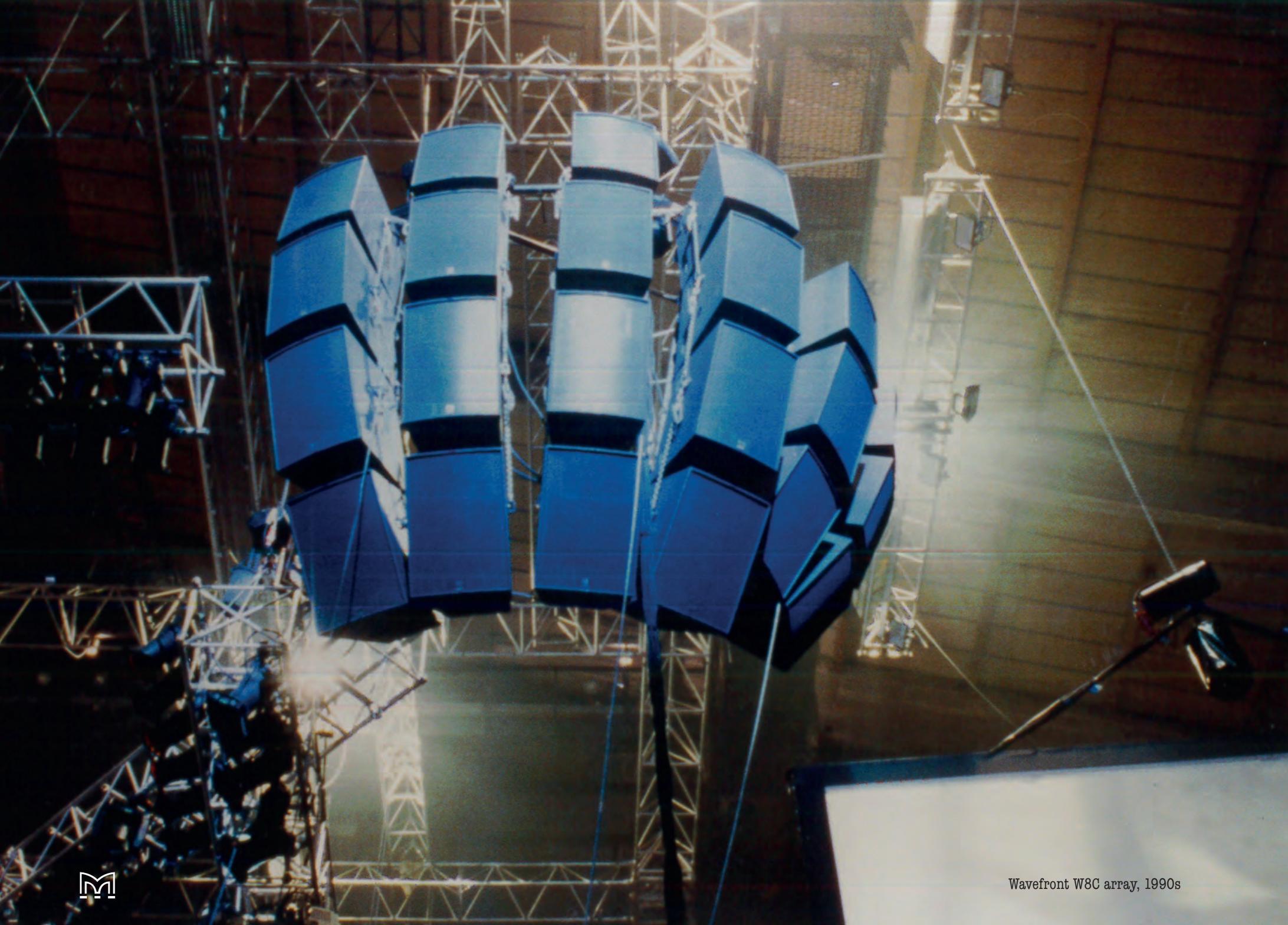
The Blackline series, positioned below the Wavefront series, targeted portable and club systems, and THX approved cinema systems expanded the product portfolio further.

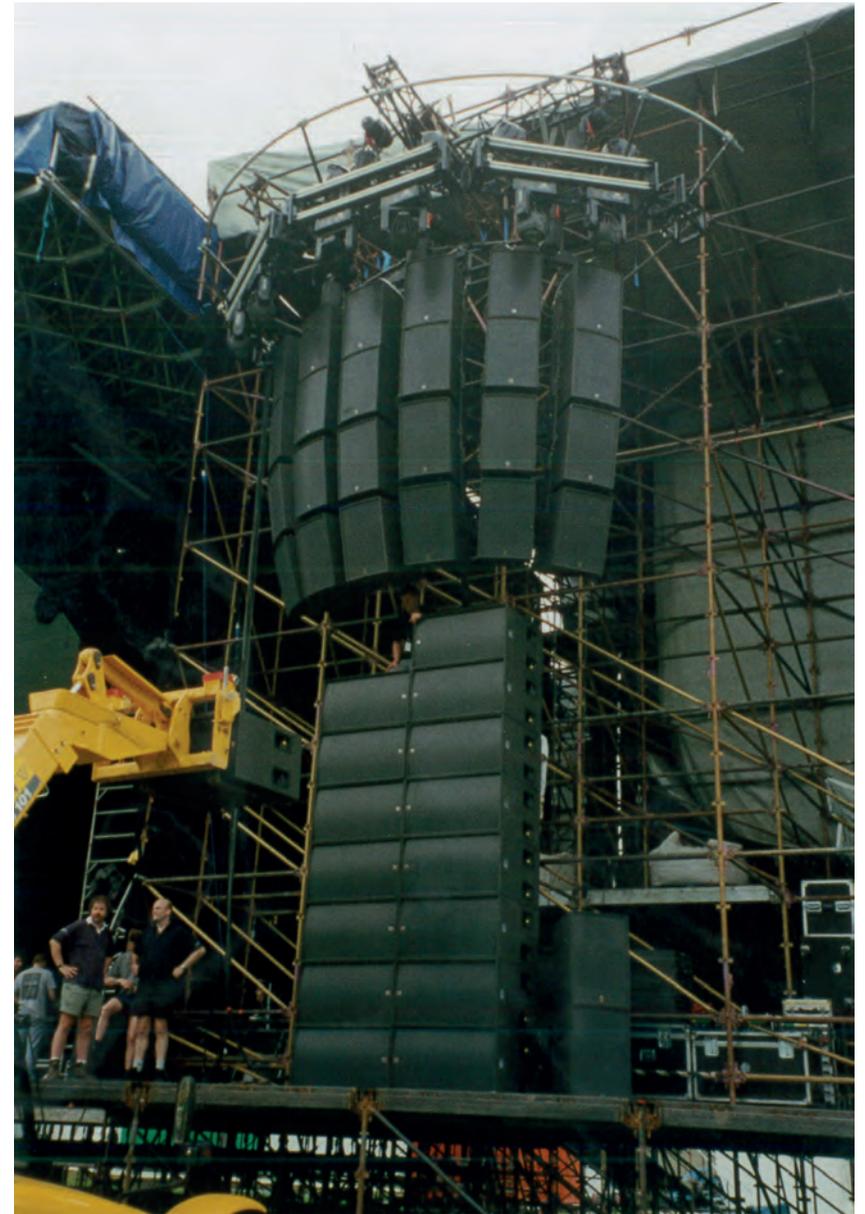
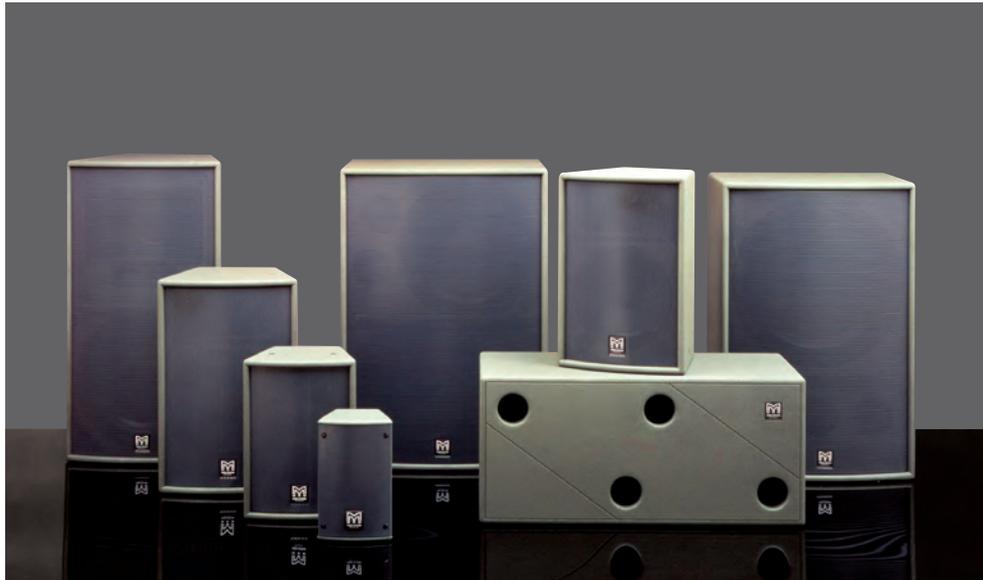
By the end of the 1990s Martin Audio’s sales had grown nearly tenfold over the decade following Dave Martin’s disappearance. This was largely due to a first class distribution and rental network around the world, augmented by new senior management in the form of pro audio stalwart Rob Lingfield, financial director Anthony Taylor and engineering lead Jason Baird.

Growth in China, in particular, was spectacular — with Martin Audio rapidly becoming the undisputed leader in the high-end karaoke and club market. And in North America, Rob Hofkamp established the Martin Audio office to support the US customer base. With over 50 distributors worldwide, everything was set fair for the new millennium.



Wavefront W8 and W8C with W8S and WSX subwoofers



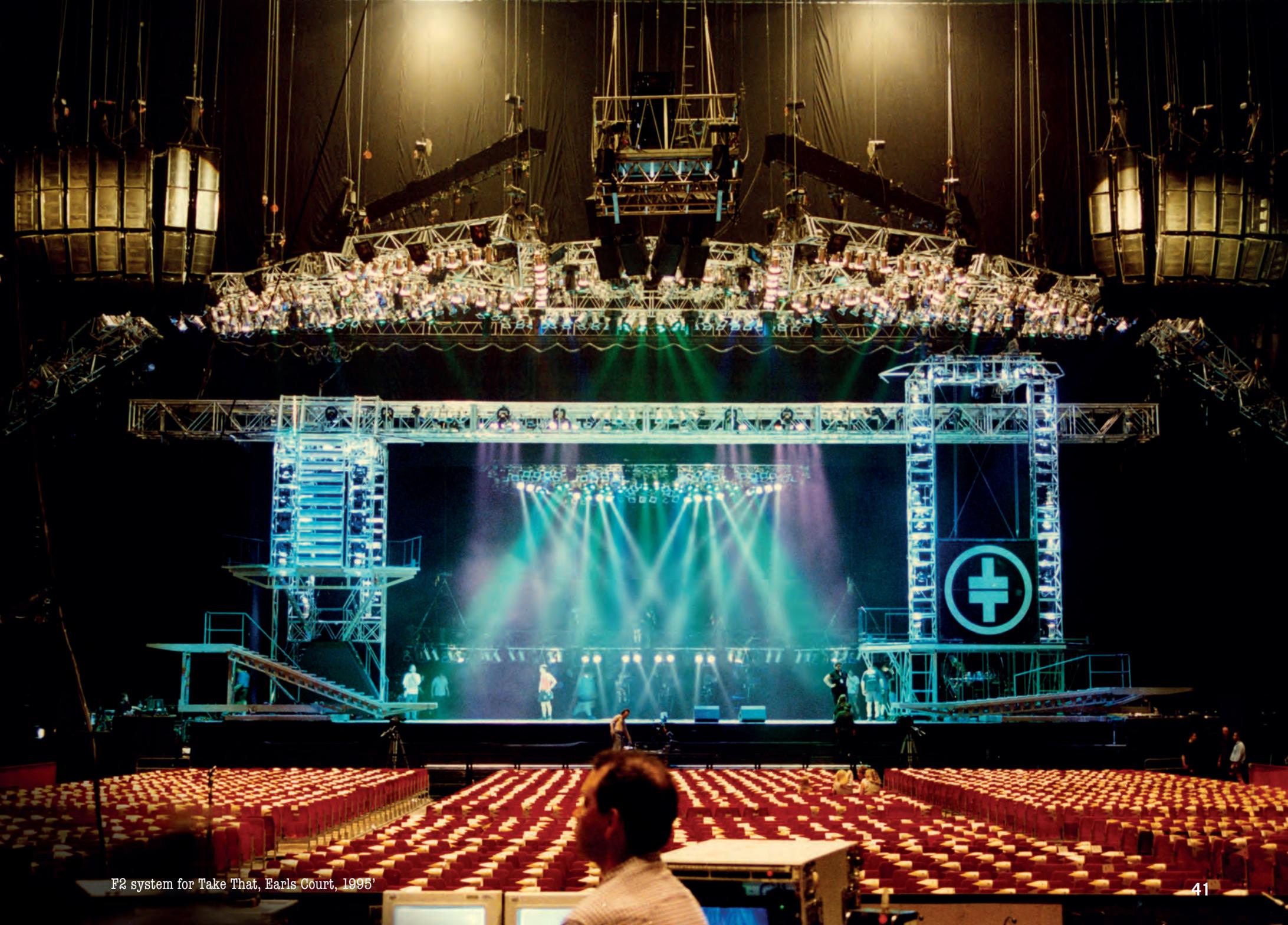


Top: EM Series, 1992

Bottom: Screen 4 3-way Cinema System

Right: Princess Diana Tribute Concert, Althorp House – W8C, W8CM, W8CT, WSX – Capital Sound, 1998





F2 system for Take That, Earls Court, 1995'



“Extremely powerful systems with maximum dynamic impact”

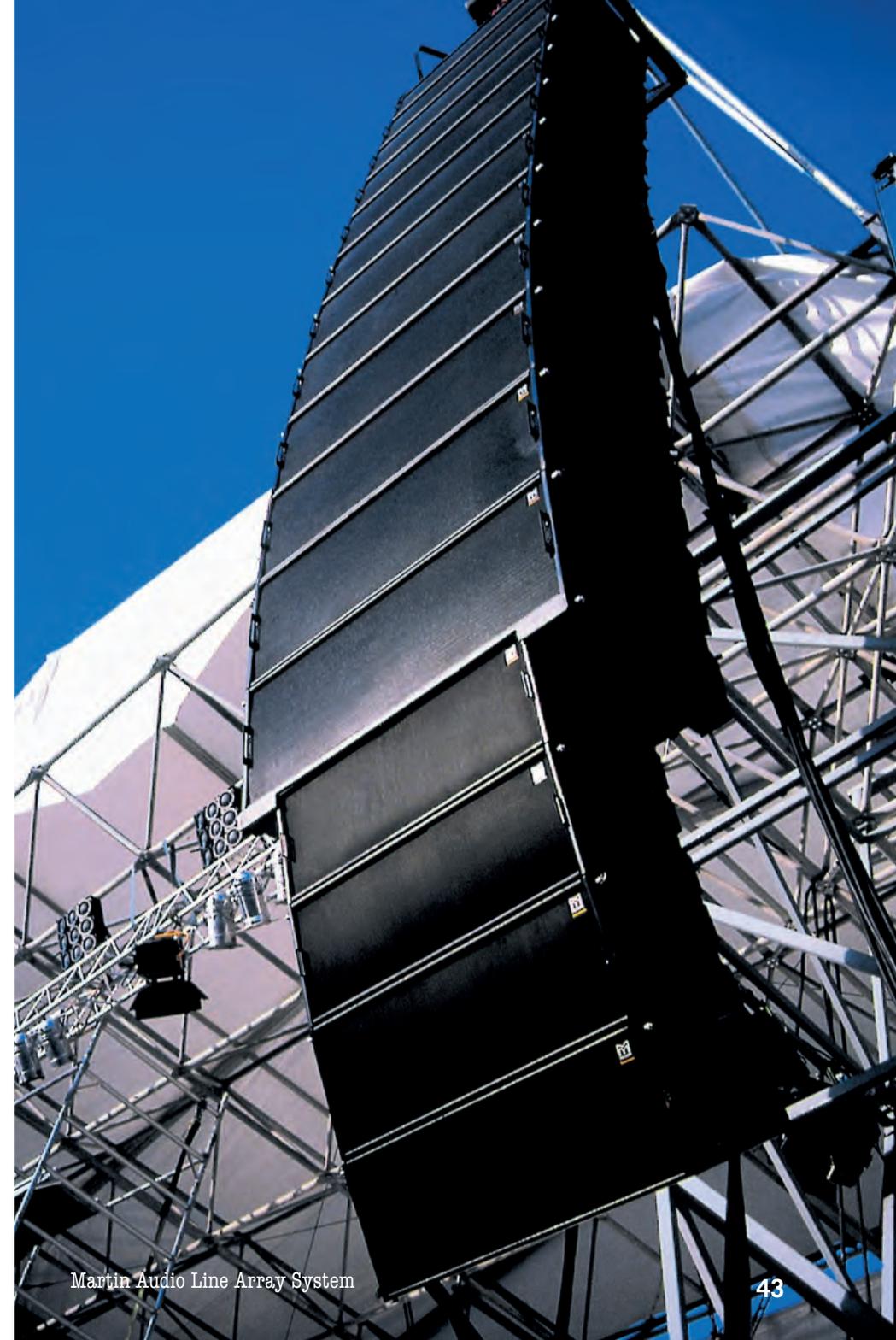


The 2000s

Martin Audio entered the line array arena shortly into the new decade, with the W8L (later upgraded to the Longbow), followed by the W8LC and W8LM (Compact and Mini) line arrays.

These combined innovative horn-loading techniques — no-compromise vertically-coupled waveguides and true constant directivity horns with line array technology — to produce extremely powerful systems with maximum dynamic impact.

Providing levels of efficiency and coverage consistency not usually found in this popular format, with easy-to-fly rigging hardware, once again the Martin Audio brand quickly established itself throughout the world. Long-standing users Delicate Productions in California and Capital Sound in the UK quickly adopted the new line arrays, as did the Synco network of independent European rental companies.



Taking on Glastonbury

The most coveted Festival stage in the cosmos is the Pyramid Stage at Glastonbury, and here in July 2008, a Martin Audio PA was rigged for the first time following complaints about the sound during The Killers' closing set the previous year. It has never been away since.

Martin Audio combined with RG Jones Sound Engineering, then part of the Synco syndicate, to provide a universally acclaimed solution, thanks in part to the favourable meteorological conditions, and an all-new PA system design from Martin Audio that saw RG Jones extend its contribution in 2007 from the stage sound to the main arena PA.

The loudspeaker specialists became involved when RG Jones director John Carroll suggested proposing a sound system design for the Pyramid Stage. Convinced that they had the products to meet this challenge Martin Audio's Jim Cousins and Jason Baird, together with RG Jones senior project manager Simon Honeywill, set about conceiving the design immediately the tender document was received.

This centred around a specification written by Chris Beale of consultants CBA Associates which described the coverage patterns and SPL levels required for all the main sound systems used at the festival. As well as specifying figures for the audience areas, it also sought to minimise spillage between the stages. In order to graphically demonstrate compliance with the parameters set out in the design proposal—and ensure there was no repeat of the previous year—Cousins and Baird made exhaustive use of Martin Audio's predictive software, DISPLAY™.

This proprietary, stand-alone application simulates the acoustic performance of Martin Audio line array systems by predicting multiple element vector summation and interdependence using high resolution loudspeaker data — invaluable for predicting real-world performance reliably.

Crucially, architectural and terrain details could be entered in 2 or 3D mode and accurate coverage predictions plotted for selected ISO frequencies or for total (flat, A or C-weighted) SPL.

DISPLAY further provided horizontal and vertical polar plots of individual arrays plus spot frequency response measurements (like placing a virtual microphone in the venue). These virtual mics are usually placed in audience areas but may also be used to analyse on-stage, back-stage, adjacent stage or off-site characteristics where required.

Since the Pyramid Stage field is 350m deep and around 200m wide, the obvious choice for the main system was the Martin Audio W8L Longbow. Fifteen W8L Longbows (plus a single W8LD downfill) were used for the left and right arrays, while the sheer width of the field also dictated the same complement to be used for left and right side hangs.

As well as coverage within the site Martin Audio also had to be cautious of spillage beyond the perimeter. Extensive off-site noise monitoring by Mendip Council and acoustic consultants, Capita Symonds was designed to ensure that the festival remained within the levels set down in its license. DISPLAY's 3D mapping facility enabled Jim Cousins to map the terrain right out to surrounding residential areas and predict the Pyramid Stage arena's contribution to the festival's noise leakage with considerable confidence.





Glastonbury





“Exemplary”

Simon Honywill,
Senior Project Manager – RG Jones

The ability to demonstrate graphically how the system would meet CBA's specification played a dominant part in the design selection process.

In order to cope with the effects of temperature gradients all the flown arrays were zoned so that the top four cabinets could be independently attenuated. This proved to be an essential hedge against the variable temperature and wind gradient effects that bedevil outdoor events. From the mix engineer and Pyramid Stage Arena audience perspective it resulted in consistent arena sound as only those zones in danger of leaking off site due to changes in propagation conditions were being attenuated. For the majority of the festival, there was no need to adjust the system. On occasion the noise monitoring team reported an increase in offsite levels due to an up-tilt in propagation conditions. This was dealt with by reducing the drive to the top zones of the system.

Another important feature of DISPLAY is its ability to calculate the effect of air absorption depending on temperature, humidity and static pressure (it was the unusual temperature changes that had dogged the previous year's event).

Longbow's very high HF sensitivity and high power handling provided plenty of headroom for air absorption compensation.

The constant directivity characteristics of the main inner and outer Longbow cabinets, and tilting of the arrays downwards, made meeting the SPL criteria both in and outside of the field straightforward.

Finally the sub array needed to be designed with similar attributes, and this resulted in a central array of 54 x WS218X subs, a third of which were facing backwards. The whole array was mounted along the stage apron and driven in a cardioid configuration in order to control the levels on stage as well as spillage to the other stages. A technique was then evolved to widen this beam to cover the whole width of the field and to match the coverage of the main and side hang system.

Meanwhile, the delay system comprised three arrays of 16 x W8LC Compact Line Arrays, tilted downwards to sharply cut off at the back of the field. Each array was augmented by eight WLX subs, again driven in a somewhat unusual cardioid configuration, in order to yield excellent forward projection required without rear leakage.

The result was a successful implementation, with Simon Honywill describing the design conceived by Martin Audio personnel as “exemplary.”

And Chris Beale confirmed that festival production director Melvyn Benn had expressed extreme satisfaction after walking the site. “We've got a great result, because of the amount of effort that everyone's put in. And following the weekend, the local authority has declared themselves very happy too, which is great news for the festival.”





W8L Longbow Arrays at the Glastonbury Pyramid Stage

A Killer Relationship Begins

It was somewhat ironic that it was complaints about the sound during The Killers' closing set of Glastonbury in 2007 that precipitated the use of Martin Audio systems moving forward on the Pyramid stage, given Martin Audio was starting to have a very fruitful and what would prove a long lasting relationship with the Vegas based rockers.

Martin Audio PA's had formed part of their touring rig utilising everything from Longbow through to W8LM, but James Gebhard who started piloting their mix in the early years of their success had a particular fondness for W8LC Compact Line Array.

"I've loved the W8LC since first using it on the NME Awards Tour with the Killers [in 2005]," Gebhard had said, explaining his choice. He then specified the rig on a one-off show with the band at the Royal Albert Hall. "I wanted to use W8LCs because of the way the Albert Hall is designed—you have to treat it like a club. It was the first time I'd used the Compacts with the flown subs—and it sounded outstanding." He also specified the W8LC's for another of his regular charges, The Strokes, in 2006.

A further highlight came in 2009 when they had managed to play the O2 Arena using only the W8LC Compact Line Array—which Gebhard had frequently described as his favourite system. By then he had become something of a veteran on the system.

Looking back at that O2 Arena gig, entire coverage—including side hangs, frontfills and delays—was made up of 20 Martin Audio W8LC Compact line array hangs as the main PA. Martin Audio MA4.2S amplifiers powered all of the full-range enclosures.

With the two delay hangs of 12 W8LCs set 165 feet back down the auditorium, the two main SR stage arrays of 18 W8LCs and a pair of W8LCD downfills were complemented by 14 W8LCs and two W8LCDs as side hangs, and six W8LC and two W8LCD as the upstage secondary side hang. These were supplemented by 12 W8LS subs up in the air, with another four floor-mounted alongside four WS218Xs.

Four blocks of two Martin Audio W8LM Mini Line Arrays provided frontfills reinforced further by three W8Cs to cover the front rows.

With most of the system flown, the main task was to pull the image down for those sitting in the near-field area from a vast hang, trimmed 36 feet above the stage. Because of the length of the drop and the large vertical coverage angle involved, special ViewPoint array software predictions had to be provided by Martin Audio R&D director Jason Baird.

"Although this is not the first time we have used delays here, it is the first time we have taken such a radical design approach," said Capital's Paul Timmins. "But I was pleasantly surprised that we achieved what some may have thought as being a gamble."





“It sounded outstanding”

James Gebhard, FOH engineer

The Killers

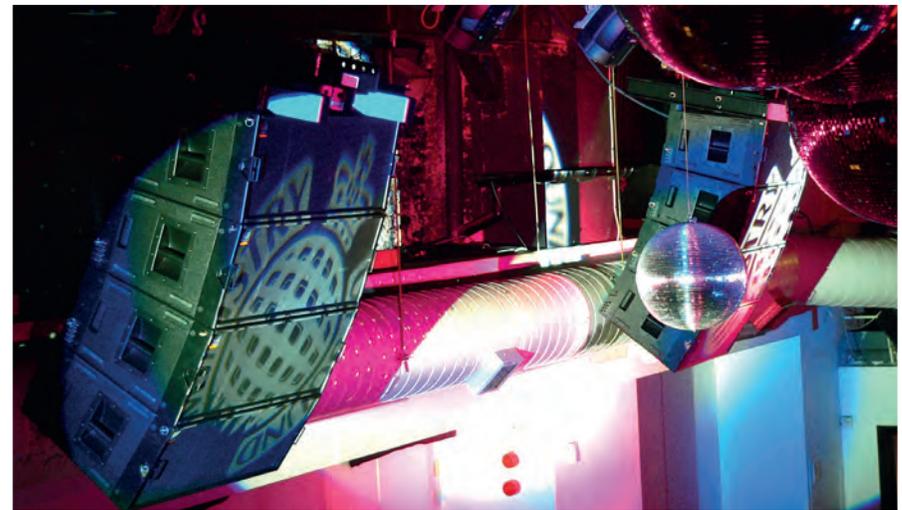


Installation Growth

Not only renowned for its touring systems, Martin Audio also enjoyed huge presence in the fixed installation and contractor markets across the world, from high end dance clubs, bars restaurants and hotels whilst gaining significant ground in the House of Worship market.

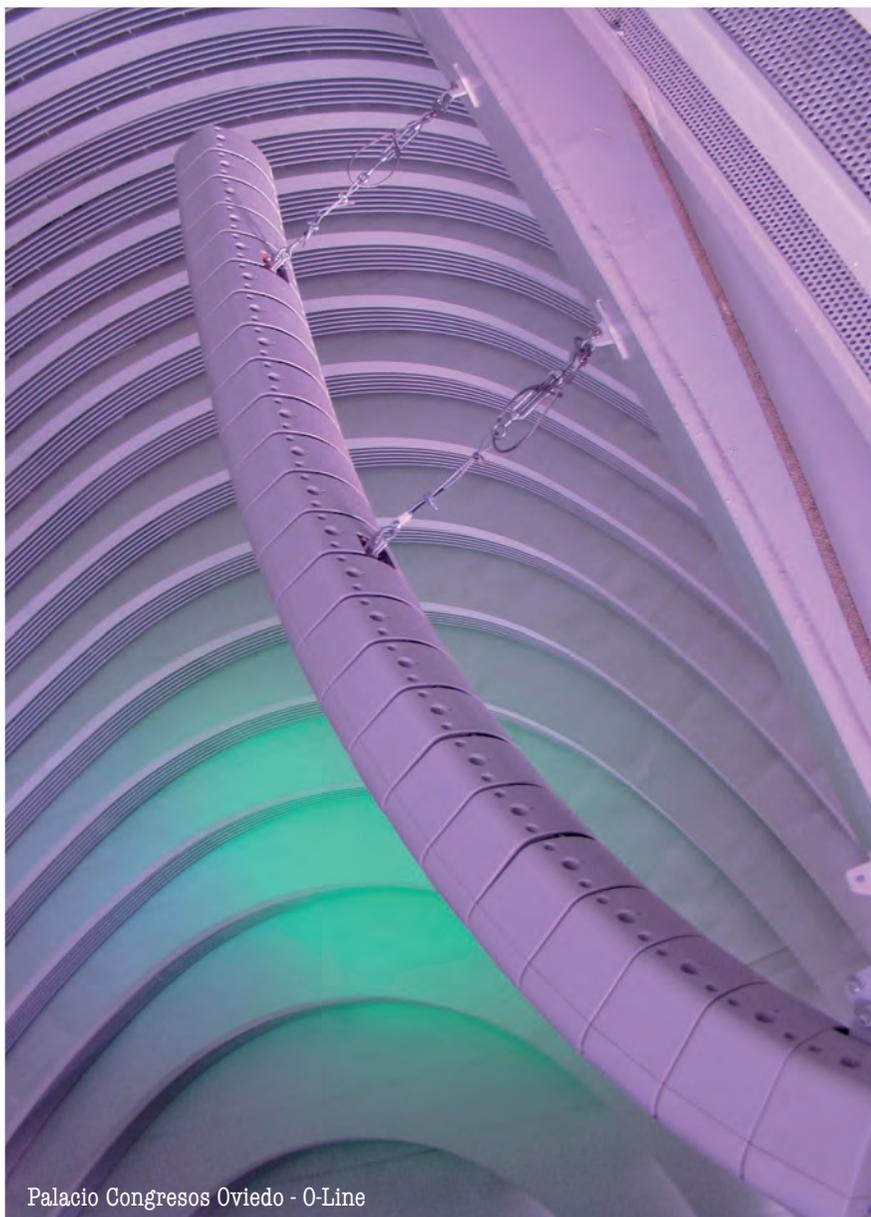
A pivotal installation that would contribute to its reputation across the globe was the relationship with Ministry of Sound, in London. Martin Audio's relationship with the Ministry runs very deep, and has been responsible for delivering the complete sound system throughout the club, everything from our Contractor ceiling speakers and Blackline system through to the now legendary custom 5-way 6 stack in their main room, The Box.

Ministry of Sound's desire to have a closeness of relationship with a premium loudspeaker manufacturer and their collective belief in the quality of the Martin Audio experience has been rewarded with the Best Club Sound System Design at the IDMA International Dance Music Awards in Miami for four consecutive years from 2010 to 2013.



“The club embraced every new aspect of technology available to date to make this system what it is today”





The O-Line Breakthrough

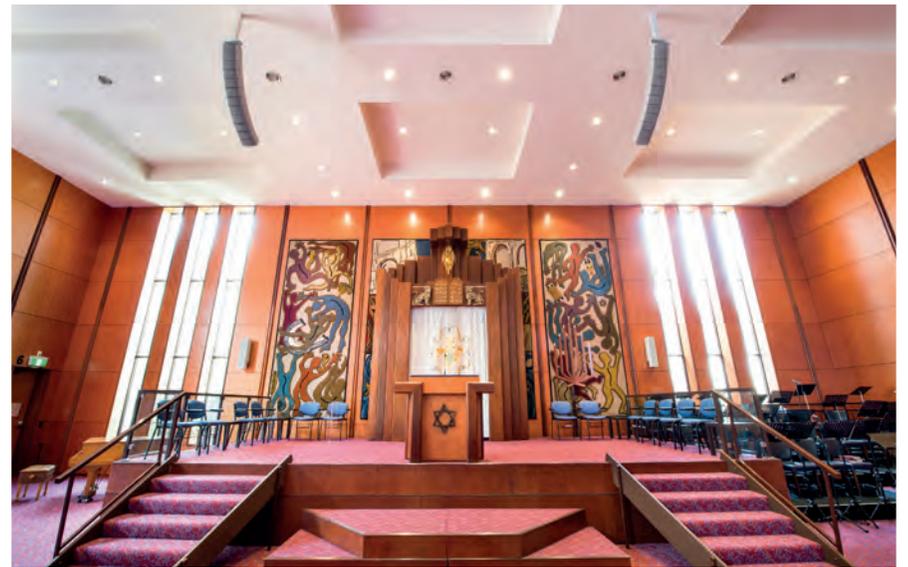
Another key development that would bring success in the installation market but also have a direct impact on Martin Audio's next assault on the touring market was the development of the award winning O-Line.

O-Line is a stunningly discreet micro line array that delivers consistent audio coverage with unprecedented accuracy in a wide variety of architectural environments. It's gone on to tame some of the most challenging reverberant spaces whilst looking immaculate in every application.

Its importance also lies in how it achieves this. Utilising a complement of unique, Martin Audio designed drivers, and mechanical alignment techniques, combined with a powerful software application providing extremely accurate intercabinet and array angles, O-Line would lay a foundation of new understanding that would make their next innovation possible.

The latter part of the 2000s was also another period of change in the company with David Bissett-Powell handing the MD reins to Anthony Taylor in 2008 in a time of Global uncertainty. At the same time, Bill Webb turned over the engineering director role to Jason Baird, remaining involved part time and offering an important bridge between the Dave Martin days and the technically exciting present.

But such change and global hiatus would be no barrier and Martin Audio's new generation of engineers knew no boundary, arguably developing the single biggest innovation in the company's history.



O-Line Left: Wills Memorial Building, Bristol University Top: Manchester University,UK Right: Temple Beth, Melbourne

The Cellular Revolution

Every so often a new technology renders previous technologies obsolete, or relegates them to the second-tier. Just as line array took over from point-source systems to become the touring standard over the previous decade, in 2010 Martin Audio's MLA Multi-cellular Loudspeaker Array introduced a revolutionary new technology to touring sound.

To understand the development of MLA, it's important to revisit the array technology prevalent at the time — the line array

Martin Audio's R&D team quickly recognised the complex physics of line arrays, following their production of their first 'Longbow' system in 2001. "With line array we effectively had a technology aimed at producing coherent wavefronts exiting the speaker grilles, with the system tech tasked with 'managing' whatever came out of the array using zoning and preset libraries which had largely been derived by trial-and-error," reveals R&D director Jason Baird. "Undocumented interactions between adjacent array elements added a further layer of difficulty. Unsurprisingly, the frequency responses and SPLs at the audience plane itself varied significantly, depending on the distance from the array."



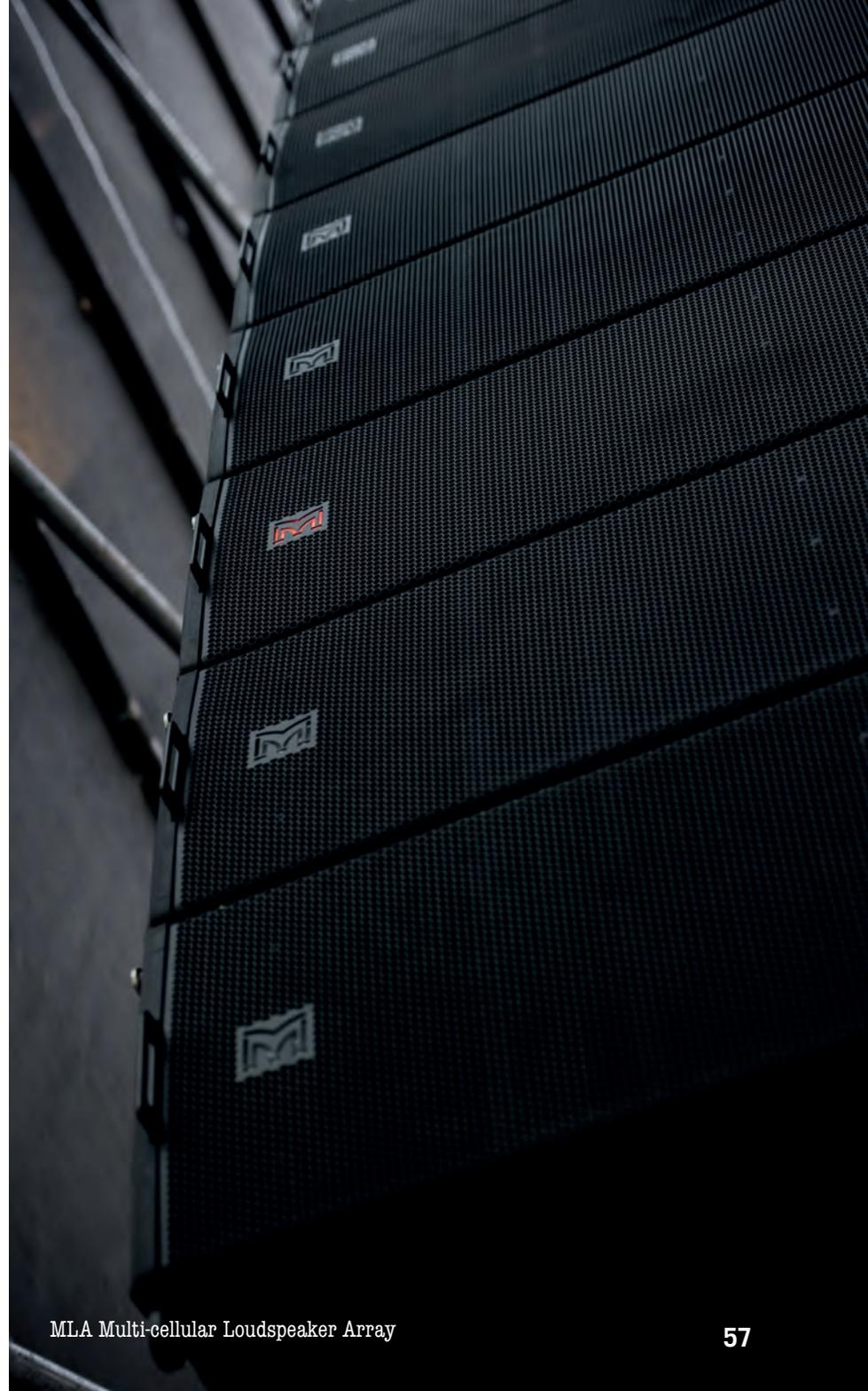
Jason Baird, R&D Director, Martin Audio



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MLA Compact



“Martin Audio’s MLA is the next generation and there’s nothing out there to match it”

John Carroll, Managing Director RG Jones



The R&D team reasoned, wouldn't it be more logical to completely reverse the situation and to specify exactly what SPL and frequency response is required at multiple points in the venue, then use that information to configure and control the array to produce the desired result? That inverse thinking was the simple 'big idea' behind the Multi-cellular Loudspeaker Array.

The lightbulb moment occurred around 2008 – partly a result of Baird's operational experience of line arrays, partly one of fundamental research into array behaviour conducted by research manager Ambrose Thompson during the design of the O-Line micro-line array.

This project involved the development of a BEM (Boundary Element Method) acoustic model which enabled virtual array configurations to be accurately modelled and investigated for the first time.

Since it is a practical impossibility to measure every possible array configuration with different combinations of enclosure numbers, splay angles and drive signals, an accurate acoustic model is essential. Without one, attempts to configure and optimise an array will never produce the right answer.

“I have never worked with a system quite as clever as MLA”

Toby Donovan, System Technician







BEM models enable hundreds of “what-if?” virtual array configurations to be investigated in very fine detail in a virtual 3D environment. This level of research has transformed our understanding of how arrays really work and shown that the acoustic interactions between array elements are much more complex than originally thought.

It was the accuracy of that model that was key to implementing the MLA concept, whereby intelligent software determines the array configuration and controls each of up to 144 individually powered cells, each with its own DSP.

Development of the concept involved a multi-disciplinary team of engineers: Thomson oversaw acoustic modelling and the software optimisation algorithms; Phil Anthony was responsible for the acoustic design, working alongside electronic hardware developers Iain Quarmby and Rod Short. Mechanical design was undertaken by Peter Lawrence and the overall project leadership and design definition fell under the auspices of Baird.

MLA was launched in 2010 and made an immediate impression.

In a short time, the flagship MLA received multiple awards – including the PLASA Gold Award for Innovation, the MusikMesse International Press Award, and the Parnelli Indispensable Technology Award. In 2012 it was followed up with MLA Compact, and year later MLA Mini, both of which have also garnered international praise and awards.

As well as achieving award recognition, the MLA series has enjoyed overwhelming commercial success worldwide, as well as achieving landmark improvements to festivals and installations proving that MLA technology can deliver what was intended.

“Martin Audio has reinvented the wheel in terms of PA design with MLA”

James Gebhard, FOH Engineer



Commercial Success with MLA

Martin Audio has been fortunate enough to have nearly eighty MLA partners around the world. A few leading lights, share their perspective on why.

Complete Audio

As soon as Martin Audio's revolutionary Multi-cellular Loudspeaker Array (MLA) had completed its world debut with German rap band Fettes Brot in 2010, the band's Berlin-based production company, Complete Audio, became the first global customer for the new system.

Complete Audio MD, André Rauhut remarked, "I now own a system which is truly unique. MLA is a genuine technological advancement - far exceeding the commonly-hyped systems in the market, and the next step in the genealogy of line array-based systems," he said. "Martin Audio has taken an entirely revolutionary approach to designing a sound system."

André Rauhut and Fettes Brot's FOH engineer, Oliver Voges, had jumped at the opportunity to beta-test the system. "This was the proof I needed," said Rauhut. "Before touring with Fettes Brot I only had the opportunity of hearing the MLA under controlled circumstances, but out on the road everyone - the sound engineers, venue promoters and audiences - were all amazed at the sound clarity and consistency."

"With conditions changing daily from venue to venue, the MLA mastered even the most stringent challenges - and this ability cannot be offered by any other system worldwide. All the promises which had been made by Martin Audio worked in reality."



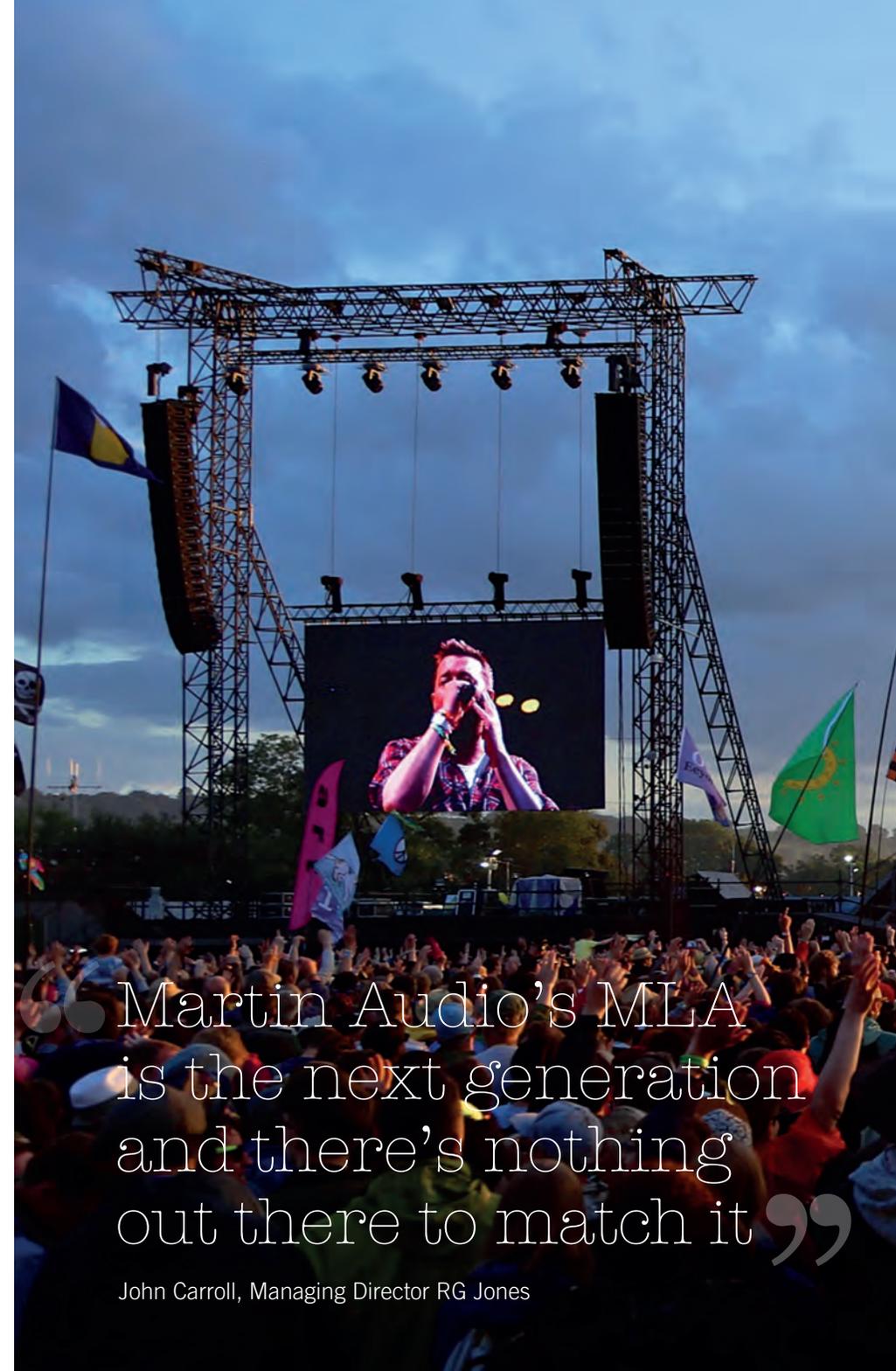


“With conditions changing daily from venue to venue, the MLA mastered even the most stringent challenges”

Oliver Voges, FOH engineer

John Carroll, Managing Director, RG Jones

RG Jones Sound Engineering was the first UK Company to invest in the system in 2012 and has witnessed the systems growing reputation first hand. As John Carroll, MD, said, “We were not content to follow the crowd when it came to choosing our flagship system. The MLA is the next generation and there’s nothing out there to match it, and our continued support from Martin Audio is second to none.”



“Martin Audio’s MLA is the next generation and there’s nothing out there to match it”

John Carroll, Managing Director RG Jones







Iwao Tsurusawa, Director, MSI Japan

One of Japan's leading PA companies, MSI Japan, has been achieving growing success since purchasing a large number of Martin Audio MLA enclosures for its inventory in August 2013. In fact by the end of the year they were providing MLA systems for more than five tours at one time. Iwao Tsurusawa, director of MSI Japan, explained why the MLA system has been proving so popular.

“When we used the MLA system in the Tokyo Dome for the first time [with TVXQ in June 2013], it was even more accommodating than we had imagined as we were able to run it without using the delay tower. The production director was deeply impressed by the performance of MLA and specified it for use thereafter in large venues.

“It has not only performed excellently in huge venues, but also earned a good reputation in medium venue shows. Working with one of our long-time clients in a medium sized hall, the artist concerned awarded high marks for the unprecedented ‘natural’ sound quality and user-friendliness of the system. And so from the beginning of this year they have started to use the MLA system regularly.”





“ We believe MLA will now be our main weapon for the foreseeable future ”

Iwao Tsurusawa, Director, MSI Japan



Rite Aid

y your eyes, I will fight your fight

I will dry your eyes, I will fight your

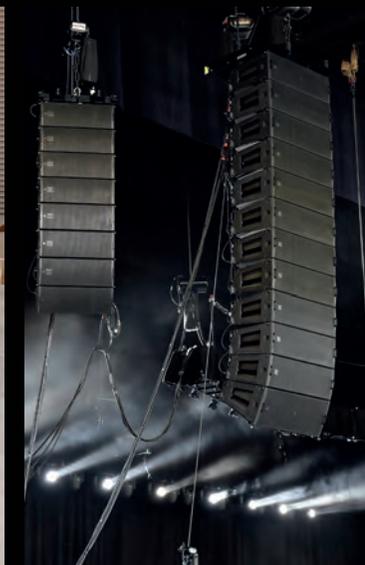


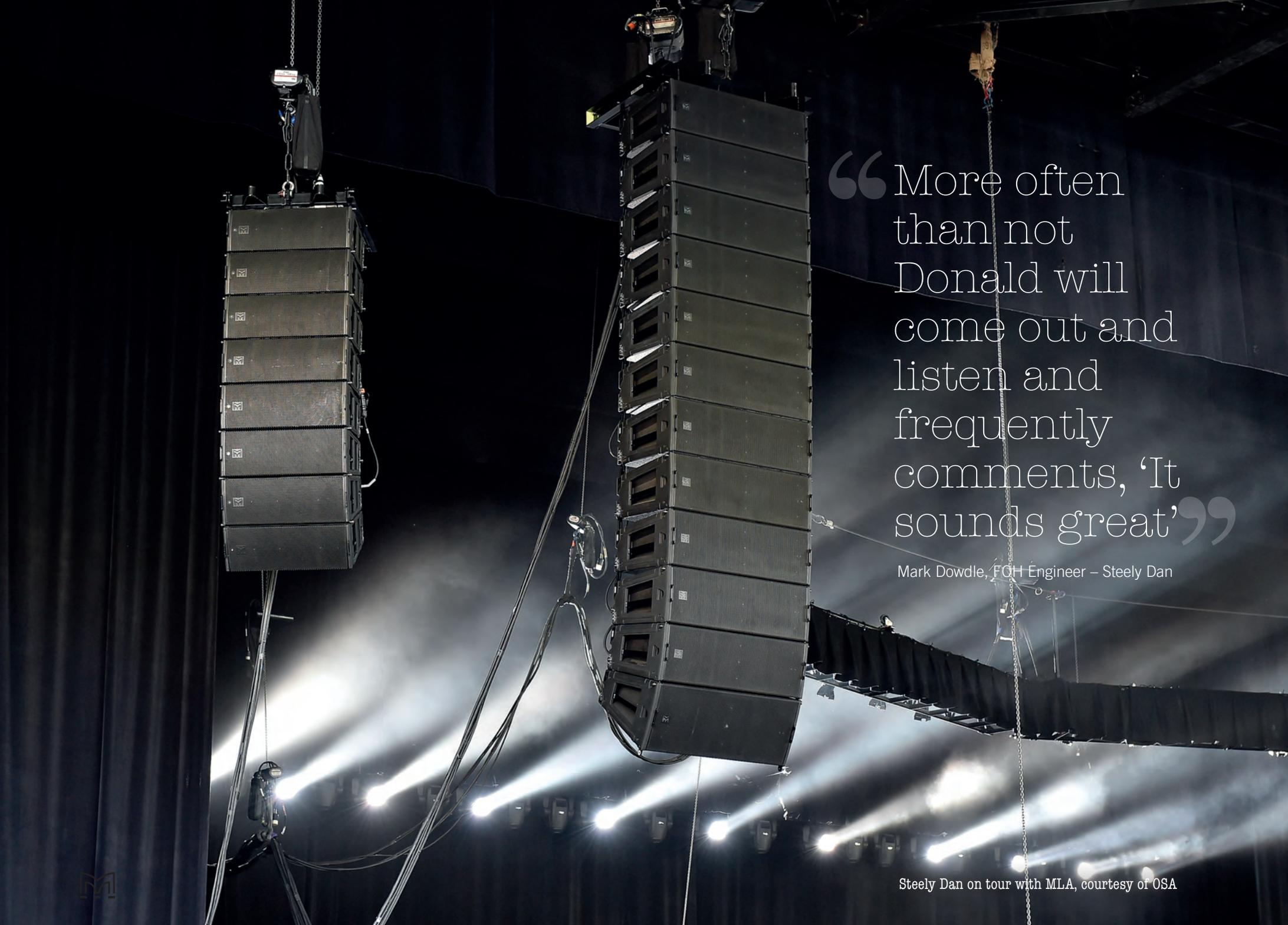
Oprah's Finale, Chicago

Jim Risgin, Vice President, OSA

OSA became a major Martin Audio customer with one of the biggest inventories of MLA anywhere in the world. Asked about the MLA acquisition, OSA Vice President Jim Risgin said, “We believe in the product, technology and, most importantly, the result that MLA delivers. It’s the first technology in the last 30 plus years that is truly delivering sound in a new and exciting way as far as I’m concerned. Even with the obvious benefits the Multi-cellular drive brings such SPL control, consistent audience coverage as well as out of area rejection, it still amazes me how good it sounds every time I turn on the system. Simply input the room calculations and MLA in turn delivers the expected coverage as well as giving the engineer a stellar sonic canvas to work with. Now I can allocate my time to my craft and art of mixing rather than spending the time mastering conventional systems to gain similar results. This translates into a better end product for our clients as well as savings in time and labour.

In terms of its performance, MLA never runs out, it never stops. I think it’s the best sounding system with the most even coverage out of the box. Every seat gets the same high quality sound regardless of the location, which helps our clients reduce costs for acoustical treatments in some venues. At this point, the level of the MLA system control has become second nature. For me to work on something other than MLA has become an eye-opener rather than the other way around.”





“More often than not Donald will come out and listen and frequently comments, ‘It sounds great’”

Mark Dowdle, FOH Engineer – Steely Dan

Steely Dan on tour with MLA, courtesy of OSA





Hyde Park: The Noise Pollution Solution

One of MLA's greatest triumphs was in making one of London's landmark concert sites, Hyde Park, viable again after it had been deemed unworkable.

It was sound level issues that had persuaded Live Nation, the long-term tenants, to move to a new site at Olympic Park. Historically, Hyde Park concerts had been dogged by offsite noise pollution leading to complaints from the wealthy local Mayfair and Kensington residents. This had resulted in sound levels on site being reduced to a level that the performances became virtually inaudible. Famously fans were left bemused after Bruce Springsteen and Sir Paul McCartney's microphones were switched off during a duet.

And this appeared to sound the death knell for Hyde Park.





“Headliners at Hyde Park are now performing at levels well in excess of 100dB which was unthinkable only two years ago”

But in 2013, AEG/Loud Sound took over the tenancy, convinced that Martin Audio's award winning MLA would go a long way to solving the problem and mitigating complaints. They had successfully trialled the system during back to back large scale festivals Underage, Field Day and Apple Cart at Victoria Park in east London over the previous two years. This was, another heavily built up site where any spillage would cause environmental noise pollution, and MLA had passed the test with flying colours, when complaints had dropped to a bare minimum.

However, Martin Audio's rental partners, Capital Sound, first needed to scientifically prove to acoustics consultants Vanguardia Ltd — who routinely carry out measurement and analysis at outdoor events such as this — that while being capable of maintaining offsite levels beneath the stipulated 75dB(A) threshold, they could at the same time raise the SPL by as much as 6dB from previous years to between 98dB(A) to 100dB(A) within the audience area. This would ensure that the site was once again viable. It was duly rubber stamped by the promoters after a simulation of the site had been set up in the grounds of Hatfield House in Herts.

With a minimum of tweaks over the first two years, including a slight reorientation of the stage, by 2015, promoter Jim King, then the Senior Vice President, Live Events, at AEG, was ready to add his own endorsement. "We are pleased that even in challenging wind conditions we were still able to operate at levels unimaginable three years ago. To achieve this and reduce local resident complaints for the third year running is a huge success for the event. The work undertaken by Capital and Martin Audio has again strengthened Hyde Park's position as the best outdoor venue in the world."

MLA's success was pivotal to seven years of glorious concerts at Hyde Park that has seen a host of stars play through the sound system, ranging from Bon Jovi, The Rolling Stones, Lionel Richie, Black Sabbath, Neil Young, The Strokes, Blur, The Who, Taylor Swift, Massive Attack, Carole King, Take That, Phil Collins, Justin Bieber, The Killers, Tom Petty, Kings of Leon, Roger Waters, Eric Clapton, Paul Simon, Celine Dion, Stevie Wonder and Barbara Streisand.

“The sound image was amongst the best I have ever heard on a large system”

Matteo Cifelli, FOH engineer for Tom Jones





Hyde Park

“This is the first time
such high levels
have been achieved
in the history of
Glastonbury”

Jason Baird, R&D Director Martin Audio



Metallica

Glastonbury with MLA

Following the unqualified success of the W8L Longbow on the Pyramid Stage at Glastonbury it was a brave step by the event's head of production Dick Tee to agree switching to MLA six years later (once again through their rental partner RG Jones Sound Engineering).

Once again Simon Honeywill had been the catalyst, as he had been back in 2008, when W8L Longbow was adopted.

He commented, "I have believed that MLA was the right system for the Pyramid since I first heard its extraordinary fidelity and learnt about its unique abilities. It was natural to suggest to Dick Tee and his team that it should take its rightful place on this iconic stage. I spent a considerable amount of time out in the audience and have never heard the field covered so well. And people in the crowd were openly complimentary about the volume and clarity too."

MLA not only delivered its legendary uniform coverage but immediately made Glastonbury history by delivering the highest sound levels ever recorded at the site. Headliners, including Arcade Fire and Metallica, were able to play at 104-105dBA without breaching offsite thresholds, since the sound was cut off sharply immediately behind the audience.

Metallica's sound engineer, the legendary 'Big' Mick Hughes, was one of a string of sound engineers who had fulsome praise. "MLA is a new system to me, a new experience. I was surprised how easy it was to get the mix I wanted out of it. When I first used it I thought 'woah' there's some serious horsepower here. It just sounded really alive; I wouldn't shy away from using it again."

In fact, MLA was impressive in every respect, utilising cabinets from the entire MLA range of loudspeakers. This comprised a total of 72 MLA for the main hangs, eight MLA Compact for stereo infill at the pit barrier and four delay positions of 14 MLA each. The latest addition to the range, the MLA Mini, also featured, providing stereo infill behind the FOH control structure and onstage coverage of artists' guest viewing platforms. A massive broadside array of 38 MLX stretched

across the entire width of the stage to provide sub-bass support to the entire system.

Noting its considerable impact, RG Jones MD, John Carroll, was moved to state, "Martin Audio's MLA is the next generation and there's nothing out there to match it." And Martin Audio R&D Director, Jason Baird paid his own tribute, describing the experience as "the showcase for everything that Martin Audio and MLA stand for."

But if 2014 was significant for MLA's adoption, then 2016 marked another watershed year, as the proven success of MLA led to adoption of premium Martin Audio systems on no fewer than six stages (including four sourced from the MLA family, via different rental partners).

Consequently, many of the world's leading artists can now claim to have played the iconic Pyramid Stage through one or other of Martin Audio's flagship systems—W8L Longbow or MLA—over a 12-year period.

Equally fitting is that The Killers returned to the Pyramid Stage in 2019, giving a tour de force performance that ignited the crowd, lived long in the memory and underlined the successful relationship of Martin Audio and the band.



Jason Baird, R&D Director Martin Audio

Rocking it in Rio

Since 2015 Martin Audio, with its MLA platform, has enjoyed increasing presence at the world famous Rock In Rio Festival, starting first at a US event before taking the mainstage in 2018 in Lisbon.

The historical ties between Martin Audio's MLA and Rock in Rio had begun with a system test at the US event in Las Vegas in May 2015, where it appeared on the second stage, the Mercedes-Benz Evolution.

The successful event in Las Vegas was followed later that year with the deployment of MLA at the 30th birthday of Rock in Rio in Brazil - again on the second stage, (the Sunset Stage). Gabisom chief engineer, Peter Racy, confirmed the impact created by MLA, stating, "For me personally it was a pleasure to hear the pristine sound quality of MLA, and in my opinion it was MLA that made the difference. In fact, I heard nothing but rave reviews from users of the MLA in Rio."

It was then a year later in Rock in Rio in Lisbon, that MLA was taken onto the main World Stage, becoming the largest deployment of MLA systems on a single stage, eclipsing both Glastonbury and Hyde Park main stages.

As Peter Racy describes, 'This system design translates into clarity and power. In the recommended configuration, each of the four arrays uses the inner column for a Full Band mix, the middle column for Band Sub, and the outer column for Vocals.'

"I have to say MLA delivered a really exciting muscular sound with absolute clarity for the daily crowds that were in excess of 100,000. There's nothing that will make the hairs stand up on the back of your neck as much as seeing an audience rocking as far as the eye can see.'

The following year they stretched the envelope further in the Portuguese capital with the addition of MLA to the second delay line. "This helped to push our coverage out further with greater clarity and impact," he stated.

“MLA delivered a really exciting muscular sound with absolute clarity for the daily crowds”

Peter Racy, Gabisom chief engineer





Rock in Rio Lisboa, Portugal



Battle Born

After a successful run using Wavefront line arrays, for the Killers' Battle Born tour (2012-14), James Gebhard was ready to turn to Martin Audio's new MLA.

"One of the most impressive aspects is the phase coherence," he explains. "Walk the room and everywhere you go it sounds exactly the same. It's like an audio guy's dream. You don't have to start making compromises or second-guessing yourself, searching for holes in the coverage between PA points or the back and front of the room. It does what it says it does."

And this successful formula was adopted by his successor, Kenny Kaiser, for the band's 2017-18 British tour, partnered by experienced system tech Toby Donovan.

Promoting their fifth studio album Wonderful Wonderful, at the O2 Arena the band this time played through a familiar Martin Audio set-up comprising main hangs of 17 x MLA elements plus 2 x MLD Downfills per side, with side hangs consisting of 12 x MLA plus 1 x MLD Downfill per side. Also deployed were secondary side hangs of 10 x MLA Compact enclosures on each flank. This was to ensure that while the main side hangs provided coverage up to around 8ft-12ft upstage of the downstage edge, the secondary hangs would infill the complete side stage seats with deluxe audio coverage.

As for the low frequencies, five MLX subwoofers were flown on each side at a 45° angle between the main and side hangs, while a further 21 x MLX were set across the front, in spaced 7 x 3 array ground stacks, with the bottom enclosure reversed. Flying the subs at 45° ensured good low-end reinforcement round the sides and enabled Toby Donovan to keep the electronic dispersion of the sub array on the ground fairly narrow and the delay time short, thereby keeping the sound punchy.

To complete the coverage, six of Capital Sound's favoured Martin Audio DD12's were used as front fills.

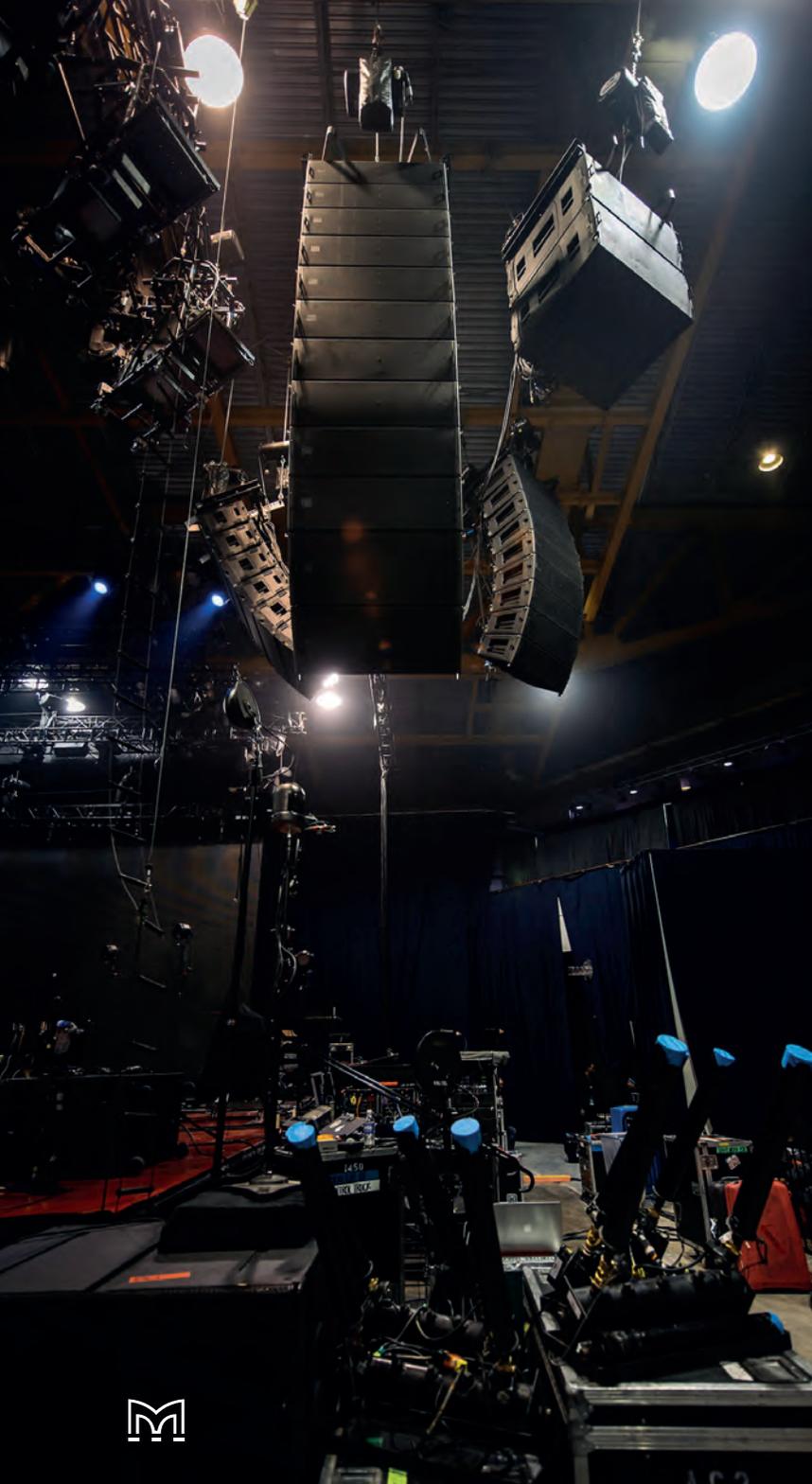




“The sound is really thumping; I think everyone in the band is super happy”

Kenny Kaiser, FOH engineer – The Killers

The Killers
Photo by Ralph Larmann



Through his work with American West Coast-based Delicate Productions, a long-term Martin Audio partner, Kenny Kaiser was already familiar with MLA. “I first experienced MLA when I was tech’ing for Selena Gomez. We had MLA out and I really loved it. I then toured with a bunch of other people and it’s been awesome ever since.”

Of the 2017-18 tour, he said, “my main focus is clarity — and I mix tonality second. When we’ve had some challenges like at Glasgow Hydro or at Brixton Academy, using ‘Hard Avoid’ [in the DISPLAY software] just cleaned everything up.”

Kenny Kaiser also instantly noticed the power and coverage of the system. “This box really throws — it’s insane. You can do any arena, you just put the system up and go. I’ve been sitting at 108dB and had a peak at 112dB at O2 Arena, so there’s tons of power in this thing and I’m barely tickling the green meters. “The sound is really thumping, I think everyone in the band is super happy — when they come out front and listen they’re pleased.”





The Killers
Photo by Ralph Larmann





Out Front With Stereophonics

The Killers isn't the only band that Martin Audio has enjoyed a long relationship with in recent times. After nearly 30 years of consistent touring, for much of the time with Martin Audio PA's, the Stereophonics' relentless quest to improve their stage sound and gain closer engagement with their audience continues.

In 2020, at the request of the band, and specifically Kelly Jones, their sound techs were sent into overdrive, working on a radical approach for the band's latest arena tour. Long-term FOH sound engineer Dave Roden, using his preferred Martin Audio MLA loudspeaker array, sent his mix to a distributed PA system, running the length of a 60ft thrust from main stage, into the belly of the audience, with a small 'B' stage at the end of it.

By opting to play a third of their set right in the middle of the arena (including a solo Kelly Jones set), it would have left the band at risk of absorbing unwanted sounds off the main PA picked up by the vocal mics, had it been set in a conventional L/R configuration. At the same time, performing so far in front of the PA would have required substantial EQ changes, which would have been impractical.

It fell to system tech Nick Boulton, who was making his debut on MLA, to come up with a viable solution. He explained, "We did some modelling with the aim of getting as much even coverage throughout the arena while keeping the weird noises off the stage. With the end of the thrust 60ft into the room it was well within the coverage area of MLA so we simply moved the hangs downstage."

He was replacing the band's usual system tech Toby Donovan, who assumed crew chief duties for this tour. However, Boulton had worked previously with Dave Roden on last year's Tim Minchin tour, using another of Martin Audio's optimised PA's. This time around, production was running Dante to the stage and sending

AES3 protocol to the hangs, with Martin Audio UNET back-up, which he said also proved straightforward. Monitor engineer, Sam Cunningham was using a DiGiCo SD7 on stage while Roden himself was on an SD5 at FOH.

The tech crew's solution had been to replace the conventional main stage L/R PA hangs with two side hangs further downstage, comprising respectively two drops of 16 MLA Compact as conventional outfills. Meanwhile, a further eight MLA Compact for infills were mounted on trusses set near the beginning of the thrust, and angled down.

He said that in view of the stipulation to minimise sound escape at the main stage they made heavy use of the Hard Avoid™ setting in Martin Audio's DISPLAY optimisation software, not only creating rejection at the back of the stage but also the hard surfaces at the rear of the arena that would cause slapback. "In fact we worked Hard Avoid to within an inch of its life," he quipped.

Nick Boulton admitted that he had been "pleasantly surprised" by the response of MLA on his first outing with the system. "DISPLAY is a very flexible tool. I was impressed by both the coverage pattern and the power, which was excellent. Martin Audio does things in an interesting and fascinating way, we've had a better result than we would with a normal L/R hang."

By then MLA was a tried and trusted system for the band and their career-long FOH engineer Dave Roden had requested a different approach from suppliers Capital Sound to satisfy new design parameters. Capital's Project Manager Robin Conway thus set about reworking the traditional broadside cardioid array of Martin Audio MLX subwoofers into something that accommodated this. The solution was a central dual cluster in a cardioid design.

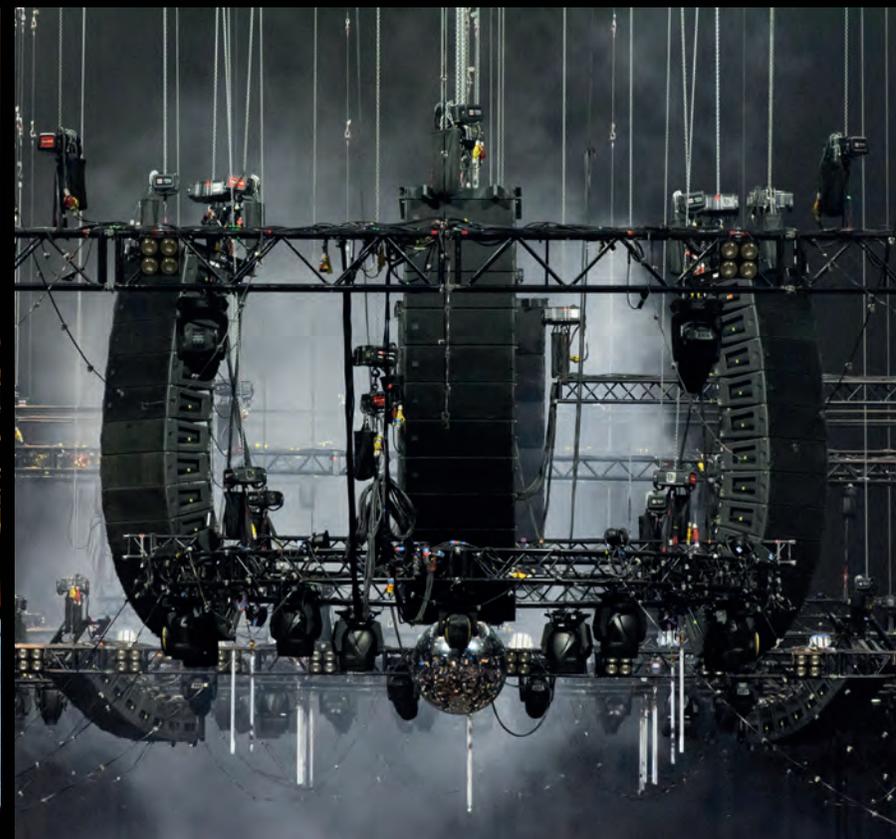




“DISPLAY is a very flexible tool. I was impressed by both the coverage pattern and the power, which was excellent”

Nick Boulton, system tech – Stereophonics

Stereophonics





Stereophonics



“Dave [Roden] is used to us producing even coverage with Martin Audio systems, but I knew that if we went for conventional left and right stacks we ran the risk of lobing. So with a combination of modelling and experimentation I came up with a solution that would avoid any compromise.”

Conway’s response was two hangs of six MLX in a cardioid pattern either side of the centre line, flown at a 30° angle pointing outwards; that ensured cancellation of the low frequencies from the centre of the stage and at the same time also ensured the loudest point for low end wasn’t on the thrust (as would have been the case with a L/R configuration). “We tried this at production rehearsal and the coverage was even, with no hot-spotting down the middle. The two MLX hangs functioned, in effect, as a single source.”

According to Capital’s account manager Martin Connolly, this configuration was adopted universally. We just had three MLX on the ground, left and right with no additional enclosures in the pit in view of the thrust. Had we done so it would have moved the band further back from the audience and impacted on the number of seats sold.”

The MLA solution met the approval of the band, production manager Dave Nelson and the FOH sound team. Said Dave Roden, “Thanks go to Martin Audio for their current speaker system. It’s been an interesting journey over the last 20 years — from F2 through Wavefront to MLA— and things have certainly improved in many areas, including low-end uniformity.”



It's Not Just for Touring

While MLA made a significant impact on festivals and concert scene, the series which expanded with MLA Compact and MLA Mini found equal favour in the world of installation.

The technology's ability to generate an even sound field but also contain it, significantly reducing the influence of the room, meant MLA became a go to solution for more challenging venues.

From houses of worship, theatres, auditoriums and even nightclubs, MLA series has found a home all over the world.



“ The amazing ability to listen for hours on end with no fatigue is truly unique ”

Anthony Russo, Director, TAG

“The most advanced,
cutting edge sound
system in the world ...
full stop”



“The MLA system has
outperformed my
expectations”

Tim Maughan, Redemption Lead Pastor

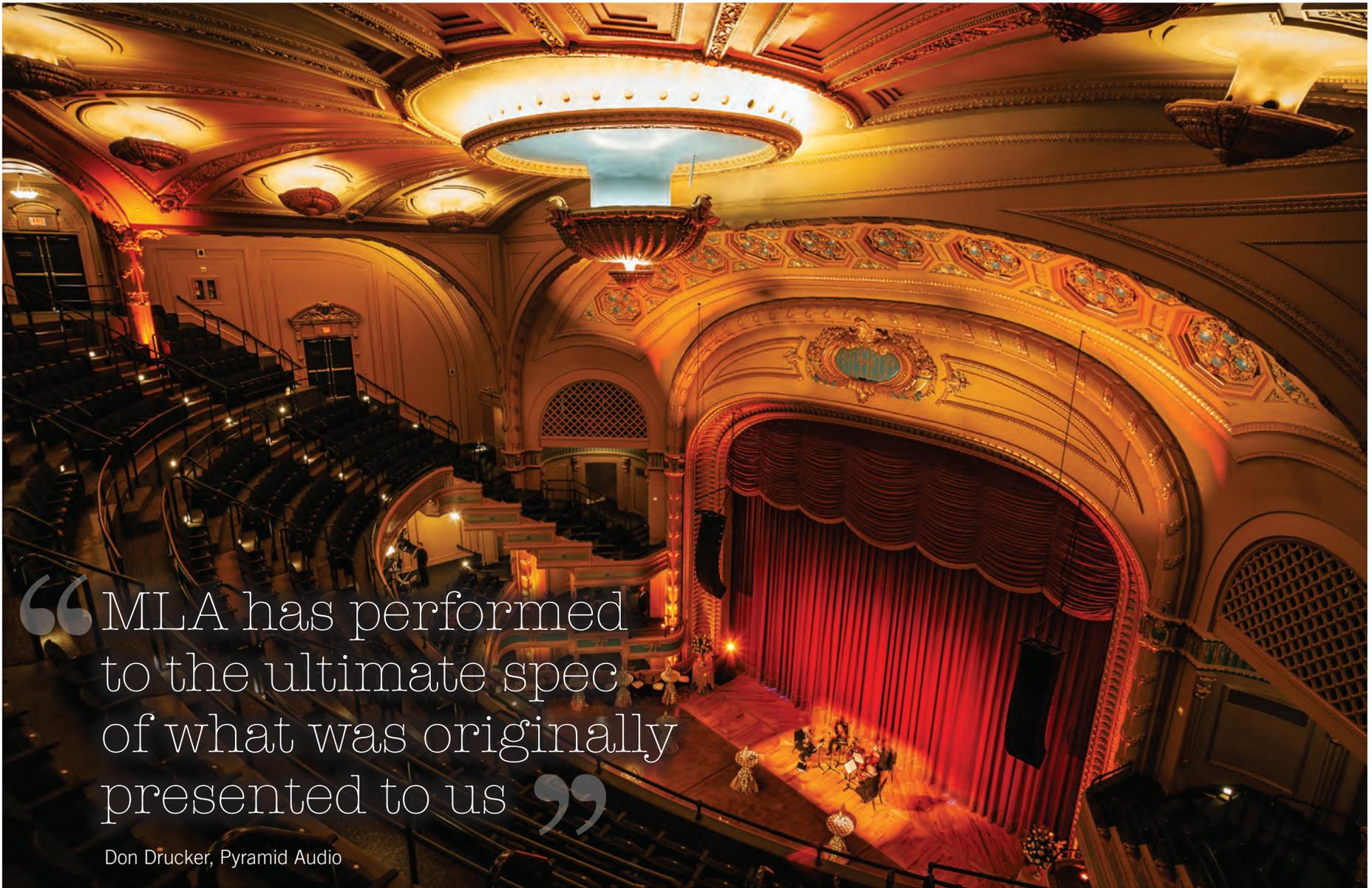




“I’ve mixed pretty much on every sound system there is at this point because of my touring and corporate background, and I’ve never had anything respond like the MLA system.”

Milk Arnold, Central Christian Church





“MLA has performed to the ultimate spec of what was originally presented to us”

Don Drucker, Pyramid Audio



Sun Valley Church, USA



“MLA allows us to achieve smooth, consistent coverage from top to bottom and side to side with no gaps. We needed to achieve articulation and clarity for speech, and it handles that beautifully”

Mark Torchia, Arts Brookfield



Brookfield Place Atrium, New York USA

“ You have a dream when putting together this type of PA that every seat will have the same audio experience and it was truly amazing to walk all of those floors and not perceive a difference in the sound ”

Houston Clark, Clark



Calvary Church, North Carolina USA





Innovation Accelerates

In 2015, Martin Audio introduced new transducer technology that would change the outlook and capability of point source loudspeakers.

Coaxial Differential Dispersion entered the parlance, combining the 'point-source' benefits of delivering the coaxial designs without beaming, while delivering consistent coverage of differential dispersion technology.

The impact of the dedicated CDD installation range was immediate and quickly became Martin Audio's fastest selling installation solution in the company's history.

“ The CDD12 speakers are very impressive. They provide warm and balanced full frequency sound with absolute fidelity for speech and a five-piece band ”

David Clemmer, Edenton Methodist Church



CDD Series





The clarity of sound is stunning

Keith Williams, Kent Hospitality



Top Left: K-Bar, University of Kent, UK
Bottom Left: Merivale Bar and Restaurant, NSW, Australia
Top Right: Edenton Methodist Church, Raleigh, USA
Bottom Right: Bottle of Sauce Bar, Cheltenham, UK





Broadway United Methodist Church, USA



Open Squash Championships, USA

“ Bottom line, if you’re a fan of the Martin Audio voice, CDD-LIVE is a perfect continuation of that voicing and tonality. Its adaptability and consistency is remarkable, better than most self-powered speakers I’ve ever used ”

Milk Arnold, Central Christian Lead Audio Engineer



StoneBridge Church, Nebraska USA



CDD-LIVE Series

“They were thrilled. It was one of the easiest approvals I’ve ever had for a PA system”

Mike Sessler, CCI Solutions

No surprise then that a year on, Martin Audio introduced a more portable solution – CDD-LIVE – that also added integrated amplification and Dante.

The introduction of CDD-LIVE coincided with new management and Dom Harter as Managing Director. He would usher in an unprecedented level of new product introduction with over 60 products in five years, almost completely revamping and extending the Martin Audio portfolio to even greater heights.

“I came in at a time that Martin Audio was underperforming in the market place. It was clear there were successful lines like MLA and CDD, and the reputation of Martin Audio and the loyalty of its customers remained strong. But too much of the portfolio was old and tired and it was also missing product that could better serve the everyday professional client.



Dom Harter,
Managing Director, Martin Audio

“The team set about an aggressive strategy that would essentially replace old product with new editions as well as introduce product in new price tiers or to target additional applications. The long term aim was to have a two tier strategy, essentially two series in every technical category, one targeted at the everyday professional that need good honest value product and then a more premium tier of product combining additional innovation and features that met the exacting demands of top touring acts and landmark installations.

“The one line in the sand, however, was always the Martin Audio signature sound quality, that had to be present in every product we developed.”

“The success of this strategy ultimately strengthened Martin Audio’s ability to address more of the marketplace while protecting margins and ultimately grow the business and better serve our customer base.”

BlacklineX was the first product series to be initiated by Dom Harter, following his arrival at Martin Audio in 2016.

The original Blackline series, released in 1999, had taken the market by storm but had faded in glory and was in need of an overhaul.

Following its original brief of delivering quality and reliability for live music venues, nightclubs and installations worldwide, a complete reinvention delivered the brand's trademark sound at a price point not previously possible — all in a clean, smart design with no-compromise between the requirements of installation and portability.

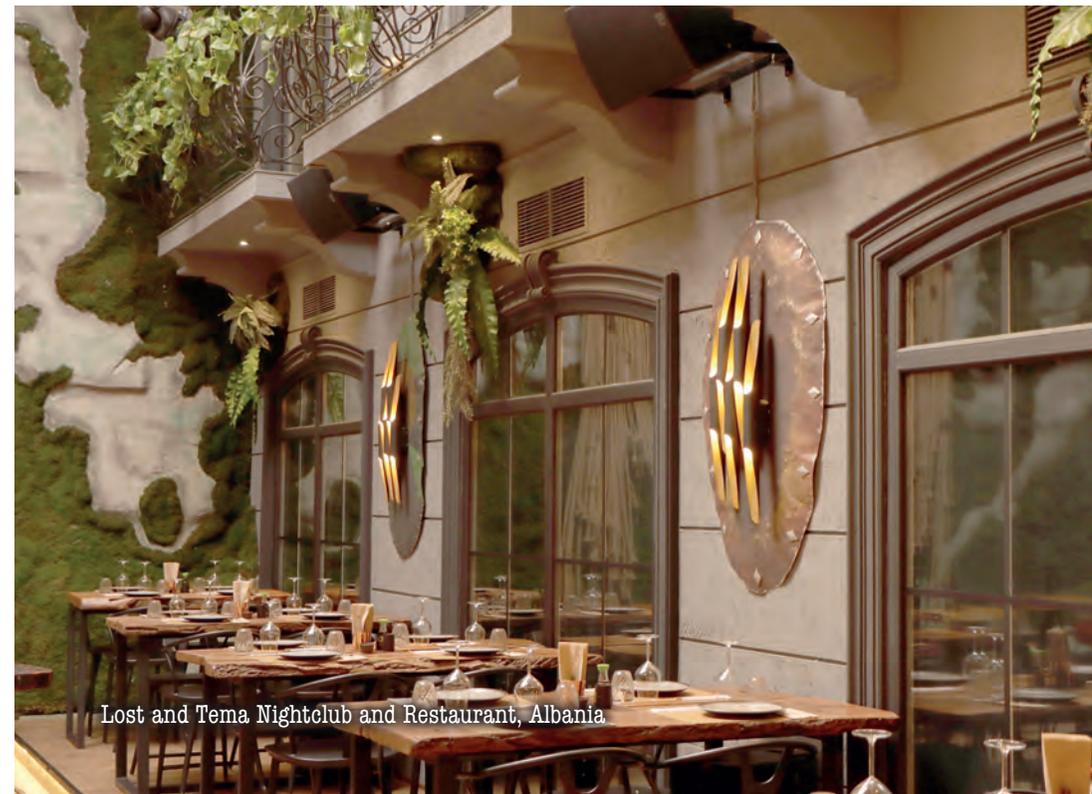
Dom Harter was certainly convinced BlacklineX had met its objectives. “Pound for pound, these are the best sounding speakers around.”



BlacklineX Series



Frozen Cherry and Dublin Room, Lebanon



Lost and Tema Nightclub and Restaurant, Albania

With the launch of the original Wavefront Precision™ Series (WPM and WPC) back in 2017, the concept of scalable resolution was born — harnessing the optimisation technology behind Martin Audio's self-powered MLA® Series systems in a new line array format with a scalable approach to external system amplification and therefore a more flexible approach to the control and optimisation required.

Because the amplifiers are external the resolution of the array can be increased as required simply by adding more amplifier channels to drive more array enclosures independently, increasing the level of control available to DISPLAY to fine tune coverage and reduce room influence.

Delivering signature sound quality, coverage consistency and control in an affordable package, this uniquely flexible and upgradeable approach has been rapidly adopted by sound rental and installation companies worldwide to become the company's fastest ever selling line array series.

Martin Audio then marked the start of 2019 by introducing Wavefront Precision Longbow (WPL) — bringing its scalable resolution optimisation technology to large-scale touring and installation applications.

But there was still more to come, and six months later the company played its master card, filling the 8" gap in the portfolio by setting a new benchmark with the WPS - a ground up engineering development.

WPS is a passive 3-way system which integrates a high density of drive units in a very compact enclosure. It features 2 x 8" LF drivers, 4 x 4" midrange drivers and 4 x 1" exit HF compression drivers loaded by a moulded HF horn which occupies the full width of the enclosure — defining the 100° horizontal constant directivity coverage pattern of both the HF and midrange sections.

The 4" midrange drivers are compression-loaded to raise efficiency and enter the horn walls via annular slots close to the HF throat to sum effectively with the HF wavefront. In the HF section, four 1" exit compression drivers deliver pristine high frequency sound without the harshness and distortion associated with larger format devices.



“The PA system sounded fantastic”

Ben Milton, FOH Engineer, Capital Sound –
Classical Spectacular



Wavefront Precision WPS



Wavefront Precision Series



The 8" LF drivers are set back behind the walls of the HF horn, with a small volume of air in front of each driver increasing the output at the upper end of its operating range. The LF exit apertures are spaced apart horizontally to provide useful LF horizontal pattern control.

Harter adds, "With WPS we wanted to overcome the deficiencies and compromises of other 8" line arrays available on the market today. That's why we have more drivers in WPS than anything else we believe in its class, with spacing, waveguide and crossover point engineered to deliver in particular optimum HF performance with exemplary mid and high frequency pattern control, even at higher SPL."

In 2021, Martin Audio was awarded the prestigious Queen's Award for Enterprise in Innovation for its Wavefront Precision optimised line arrays.

“The coverage is truly exceptional ... Now every seat in the house has even coverage, top to bottom, side to side.”

Nick McKinnon, Technical Manager, First Pentecostal Church



THE QUEEN'S AWARDS
FOR ENTERPRISE:
INNOVATION
2021





Soundworks and Southard Audio



Rokbox Entertainment



OSA

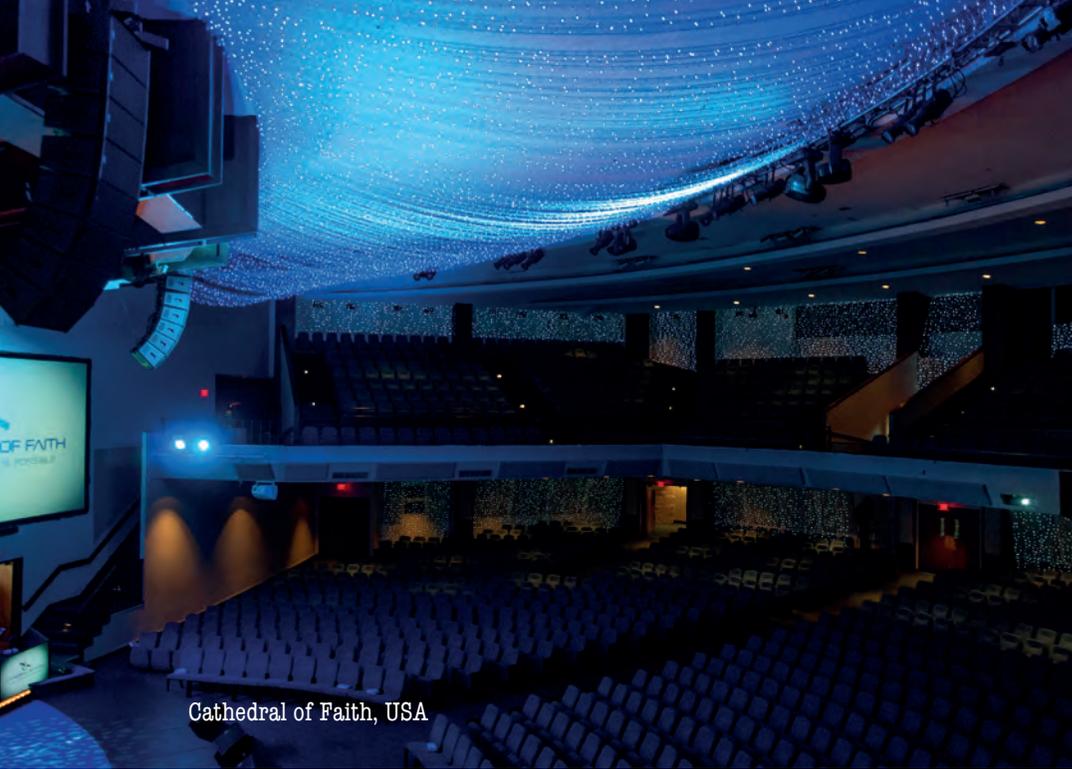


Such a result would not have been possible with a standard line array

Klaus Lehner, Production Engineer – Krone-Fest



Temple University Commencement, USA



Cathedral of Faith, USA



Springs Church, USA



Jonava Cultural Centre, Lithuania



Newcastle University, Australia



XE Stage Monitors – BST Hyde Park 2017, UK





XE Stage Monitor

The XE series continued Martin Audio's long tradition of producing industry standard reference monitors (historically via its classic LE series).

The range comprises XE300 (12") and XE500 (15") and feature Martin Audio's patented Coaxial Differential Dispersion drivers with an additional contour-moulded static third waveguide that increases the size of the horn mouth to maintain pattern control downwards and avoid spill outside the desired coverage area.



LE Stage Monitors



Marlow Regatta, UK

They enjoyed a high-profile debut in July 2017 in Hyde Park at the British Summer Time Festival.

Complementing this high-performance range of reference monitoring, at around the same time, Martin Audio extended its LE series, with the LE100 (12") and LE200 (15") bringing high-value engineering at an eye-watering price point, making them suitable for everyday use.

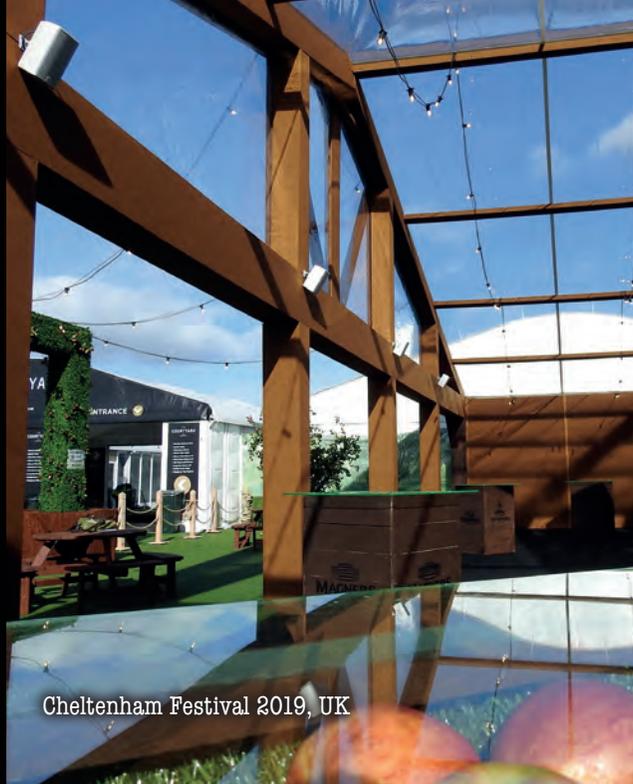


iKON Amplifier

By the end of 2018 Martin Audio was ready to announce its new ADORN range of ultra-compact on-wall loudspeakers, designed to bring class-leading performance, reliability and value to a wide range of commercial sound installations at the entry level.

Designed for distributed sound applications that require high performance from visually-discreet enclosures, it proved an instant winner, suggesting that the family would quickly become extended to embrace recessed ceiling applications.

Today the range is made up of several 4" and 5.25" low voltage and 100V line on-wall solutions, as well as 4" and 5.25" ceiling speakers, plus a 5.25" pendant speaker, filling an important gap in the product portfolio.



Cheltenham Festival 2019, UK



Grand Bar, Albania



Iiriti Cafe, Italy



ADORN Series



Martin Audio capitalised on its fastest-selling portable BlacklineX range by introducing a powered two-way version, in response to market demand.

The series integrated acoustic, DSP and amplifier technologies to achieve clarity, precision and richness of tone for the professional on the go. But that's not all. In addition, BlacklineX Powered offers optional Bluetooth control, streaming and a built-in three channel mixer, placing increased flexibility and features within easy reach of every user – from live venues, DJs and corporate events to permanent installs.

To put all these efforts of the R&D team into perspective, this five-year period represented a fivefold increase in product output compared to the preceding period, re-establishing it as one of the pioneers of the industry.

Moreover, it fulfilled Dom Harter's goal to grow the business, with revenue having increased by more than 50% by the end of 2019.



AFA Grammy Party, Los Angeles



BlacklineX Powered Series

The Continued Growth in Asia

Martin Audio began systematically building up a major presence in the APAC territories towards the end of the last millennium. The inspiration behind the surge into China's teeming karaoke bars and emerging nightclubs was Martin Audio's MD at the time, David Bissett-Powell, who ensured that business in the region would become a major contributor to turnover.

Since then Martin Audio has enjoyed continuing success, with a consistent distributor presence of Sino Huifeng Audio Group and continuing efforts in the noughties by then Director of Worldwide Sales, Simon Bull. Recently Guangzhou Guidance AV Technology has been added as a distributor, specifically to open up new vertical markets in China. This was largely at the initiative of pro-audio veteran Dave McKinney, who brought all his experience to bear when forming Singapore-based Generation AV in 2018. This was an enterprise promptly recognised by Martin Audio, who appointed them to handle its interests in the APAC countries. The move reunited McKinney with Martin Audio MD Dom Harter, with whom he had worked at Harman Professional

"At Generation AV, we are very proud to be partnering with Martin Audio," stated David McKinney at the time. "I have been impressed with how Dom has transformed Martin Audio into one of the global market leaders and I am excited to be part of this journey in Asia where there is great potential."

In parallel to its success in China, Martin Audio capitalised on its success in the Far East by setting up a new regional Japanese hub in Kanagawa. The new operation, Martin Audio Japan, was announced in early 2013, with Yusuke Karato, director of Martin Audio distributors, Audiobrains, fronting the operation.



bbR Club - Guangzhou, Huifeng

“I am excited to be part of this journey in Asia where there is great potential”

David McKinney, Generation AV







One Third Club - Hangzhou, Huifeng



Under the new structure, Martin Audio Japan would act as main distributor and Audiobrains would take on a dealership role. Almost immediately, one of the country's leading PA companies, MSI Japan, purchased a large number of MLA systems for its inventory — an investment that paid off when the award-winning system was adopted for the mighty Rock In Japan Festival (an event which later went further by embracing the new flagship WPL Longbow system in 2019, for its 20th anniversary).

Elsewhere in Pacific Asia it was the same story, with Martin Audio opting for experience with its representative companies. This is exemplified by the recent appointment of PT Goshen Swara Indonesia, exclusively for that territory. Equally at home in the rental and install segments, they immediately attacked the vertical markets to expand Martin Audio's brand profile.

And all the while, in Oceania Martin Audio maintained its strong Australian presence through its long-serving partner Technical Audio Group (TAG), whose origins date back to 1984. They permanently installed the first MLA at the Marquee Nightclub in Sydney as far back as 2012 and have undertaken many high profile contracts with Martin Audio solutions, ranging from places of higher education (University of Newcastle's Great Hall with WPM) to houses of worship (most notably supplying 140 O-Line elements in record time to Wizard Projects to enable installation at St. Andrew's Cathedral, Sydney, for the Easter Sunday visit by the Duke and Duchess of Cambridge).



Anthony Russo, Technical Audio Group



St. Andrew's Cathedral, Australia

Changing Ownership Through The Ages

There have been a number of ownership changes, including several MBO's, over the years, since Martin Audio first ceded its independence in 1990. At that time, it became part of TGI, a holding company that also owned the Tannoy and Goodmans loudspeaker companies (TGI). Dave Martin stayed on under the new management (along with David Bissett-Powell) until his untimely death in 1992.

In what could be described as serendipity, given what would happen some twenty-five years later, Dave Martin had approached Phil Dudderidge to help him sell the company to TGI.

“Having recently sold Soundcraft he thought I might lend my experience to the challenge. I had recently (April 1989) started Focusrite in Bourne End, just a few miles away so the Lincoln Road, High Wycombe address was quite convenient to visit. The company badly needed some management structure and completion of the demo room! So we spent about six months organising disparate individuals into a management team and got the building looking good. We worked on a business plan and once we were ready engaged with TGI. As I recall they never visited the company and took the business plan at face value and agreed to the asking price. Having sold the business Dave no longer wanted the burden of responsibility for running the business. As briefly chairman during the process, it fell to me to suggest



to TGI managing director Alex Munro that Tannoy sales director David Bissett-Powell (who I knew happened to live in Beaconsfield) take over the MD reins from Dave Martin. He did a great job of turning a cottage industry into a grown-up business.”

In 2002 the TGI Group (which now also included Lab Gruppen) was acquired by TC Electronic to form the TC Group. However, Martin Audio would not remain long in the Danish company's fold. By August the following year the directors of Martin Audio and TC Group announced a successful management buyout, supported by ISIS Equity Partners plc and The Royal Bank of Scotland and funded by private equity firm Livingbridge. The consortium also included Finance Director Anthony Taylor, who would go on to become Martin Audio's MD, eventually taking over from Bissett-Powell.

In April 2007 the company was again brought into a corporate structure, this time with US company, Loud Technologies, which already owned the EAW and Mackie speaker lines. There was a further structural change when all Loud brands were bought by the Transom Capital Group in October 2017.

This lasted until July 2018 where there was a management buyout of Martin Audio backed by mid-market equity company, LDC. While the move was expected to last a minimum of three years, the ongoing rapid success of the company brought Martin Audio to the attention of a new suitor, when in December 2019 Martin Audio was bought by their High Wycombe neighbours, Focusrite Group. Enter once again, Phil Dudderidge, Chairman of Focusrite. “Given my long association with both Dave Martin and briefly the company, I championed the Focusrite acquisition of Martin Audio from start to finish.”

Dom Harter commented: “We are excited by the transaction and what Martin Audio can achieve together with Focusrite. Focusrite is a strong brand in the industry and given the geographic proximity of both our businesses we know the team at Focusrite very well. There is a great deal we can do together and we look forward to working closely to develop the opportunities across both of our businesses.”

Tim Carroll, CEO of Focusrite, responded: “Martin Audio is an established brand with solid financials that can instantly add value to the enlarged Group. The Martin Audio team share our hunger to innovate and our passion as music and sound enthusiasts.”





Unite Your Audience
The Martin Audio Experience

“The Martin Audio team share our hunger to innovate and our passion as music and sound enthusiasts”

Tim Carroll, CEO – Focusrite





Photo by Sophie Houl. Lighting by Nigel Meddemmen.

Emerging from Pandemic

A history wouldn't be complete without some mention of the impact of Covid-19.

There is no doubt that the pandemic had a hugely significant impact upon the industry and most notably live events which was the first sector to stop working and the last to return. Nothing could have prepared any company for what they were to face, but arguably for Martin Audio it did draw out some of the best traits in the company.

“I've experienced my fair share of turmoil in different companies and industries over the years but nothing was as profound of this”, said James King, Director of Marketing. “But what struck me was the calmness about which we went about things and how everyone supported one another through. This has a lot to do with Dom's leadership and the clarity of direction he brought throughout.”

Dom Harter explains, “From the outset it was clear that so long as the Government supported and we could make it safe, we wanted to keep the UK factory and operations going so that the company had a fighting chance of sustaining its future. We issued PPE early on while mandating social distancing and had cleaning three times a day. Everyone else was sent home to work with regular communication ongoing via virtual town hall meetings to update on direction and progress of the business. We made significant savings across the business by cutting all non-essential spend and along with some extraordinary support from sales partners meant we were able to keep our heads above water throughout.”

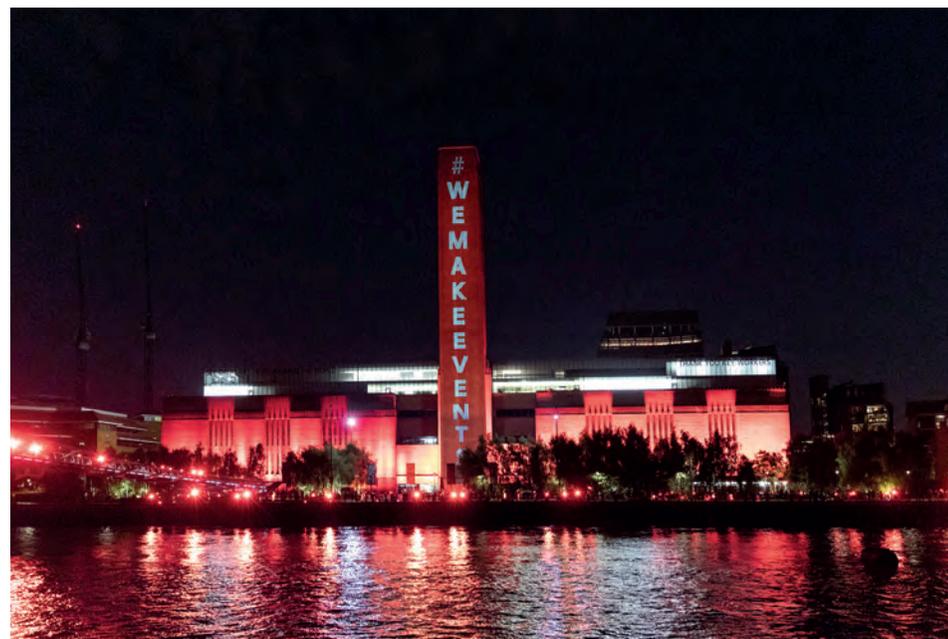
Our ability to do this with the unwavering support of our new owners, Focusrite, helped create the sense of calmness necessary so that everyone could focus upon what was needed to be done to help the company through.”

Martin Audio also felt a responsibility to support the wider industry, in particular the ‘live event’ sector, and campaigned consistently around the world to highlight their plight. This culminated in a day of action in support of PLASA’s #WeMakeEvents Red Alert Campaign where Martin Audio helped organise a full live TV production and Facebook stream of the activities in London. These included many of the capital’s major landmarks being lit up in red and up to 5,000 socially distanced people gathering along the banks of the River Thames, dressed in red.

Closer to home for Martin Audio, the company also supported the Wycombe Swan Theatre and High Wycombe Town Hall being lit in Emergency Red, alongside its own headquarters.

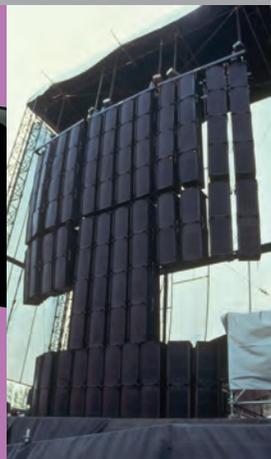
Martin Audio continued to support and contribute to #WeMakeEvents as it branched out into an international movement that brought the industry together as one, including a Global Action Day that saw over 25 countries take part.

Harter concludes, “The industry has been ravaged and it will be a long road back to some sort of normality, and sadly not all companies made it through. We count ourselves very fortunate, but given we continued to fund R&D throughout means we continue to believe Martin Audio has a bright and exciting future.”





Milestones in History



1971
THE BEGINNING

Martin Audio was founded by David Martin

1972
LEGENDARY 115 BASS BIN

Designed in original Martin Audio factory in Covent Garden

1978
LE200

First LE Stage Monitor, the precursor to the industry leading LE400 and LE700

1978
MH212 'PHILISHAVE'

The first loudspeaker with a dedicated midrange horn

1987
F2 SYSTEM

The F2 introduced a new level of sound quality while still retaining the versatility of a smaller system

1992
DAVE MARTIN KILLED

Tragically, Dave Martin was murdered, his body was never found

1993
EM SERIES

The EM Series marked Martin Audio's entry into the loudspeaker installation market

1996
WAVEFRONT W8C

The W8C was the next generation of touring sound, which reduced the number of compression drivers needed





**2000
BLACKLINE SERIES**

The Blackline Series became the benchmark for premium live music venues, nightclubs and installations world wide



**2002
W8L LINE ARRAY**

Martin Audio's first Line Array system used innovative horn loading techniques resulting in maximum dynamic impact



**2007
O-LINE**

A Micro-Line Array for speech and music



**2010-13
MLA SERIES**

A ground breaking multi-cellular array series, ranging from the large format MLA to the ultra-compact MLA Mini, providing unparalleled coverage and consistency for the touring market



**2015
CDD SERIES**

Engineering innovation to installed sound – unique Coaxial Dispersion to deliver class-leading performance, fidelity and coverage consistency



**2016
BLACKLINEX**

A re-invention of this much loved series went on to become Martin Audio's fastest selling ever portable series



**2017-19
WAVEFRONT PRECISION**

The world's first optimised line arrays with scalable resolution, ideal for both live sound and installation sound



**2021
TORUS / D3**

Martin Audio's first constant curvature array in tandem with 3D prediction and optimisation software

To the Next Milestone

50 years is an extraordinary milestone for any company, especially given the recent circumstances of the world.

But it is only that, a milestone.

Martin Audio is committed to always moving forward and laying the foundation for the future. Therefore, it is fitting that in celebration of its 50th anniversary, Martin Audio started 2021 with both a landmark new product entry alongside new prediction and optimisation software.

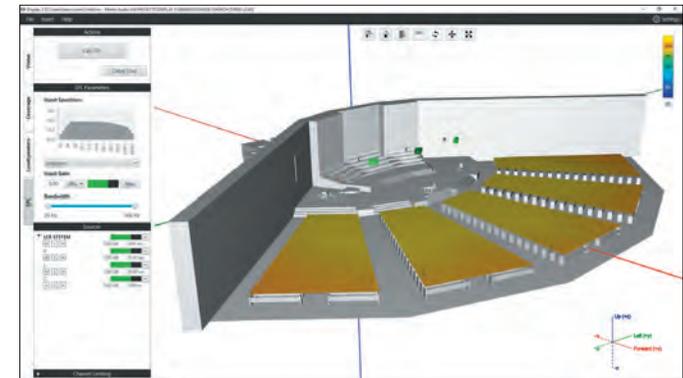
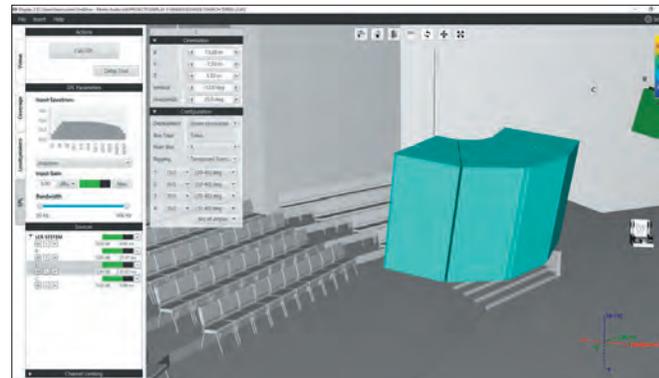
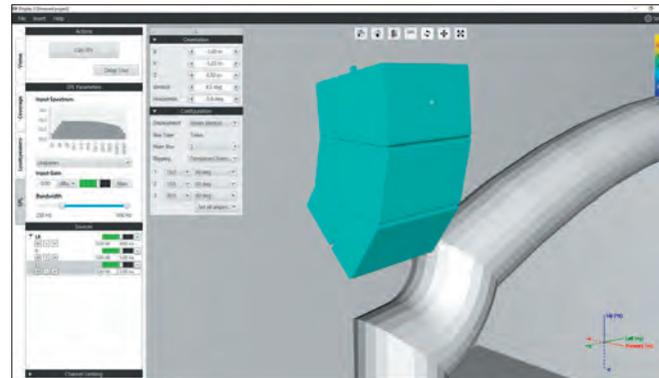
TORUS entered the world stage as the company's first constant curvature array for short to medium throw applications, combining optimised coverage, SPL and cost efficiency.



But TORUS is much more than just another constant curvature array. It was in development for three years in an exhaustive bid to further the acoustic concept and performance achievable.

As Dom Harter explains, “Typically, constant curvature arrays have adjustable horizontal dispersion but their performance can vary considerably in terms of tonality and effectiveness of coverage when different dispersions are selected. Equally, many lack sufficient sensitivity in the mid-band frequency, critically important for voice projection and clarity. They also can suffer from comb filtering. TORUS fundamentally addresses these areas and more.”





Each TORUS cabinet is designed for a flexible horizontal dispersion pattern and this can be manually adjusted between 90°, 60° or 75° (Asymmetrical) via the unique Dynamic Horn Flare™. This not only moves and locks the waveguide but also adjusts the horn mouth, including the low diffraction termination into the baffle, to ensure correct geometry and optimal performance in each of those settings.

A vertical pattern of either 15° or 30° is achieved via two separate cabinet types: T1215 and T1230, respectively. These cabinets can also be combined to fit venue and coverage requirements.

TORUS features a phase plug mounted in front of the 12" neodymium driver to increase mid-band sensitivity and long with three 1.4" HF Polymer dome

neodymium compression drivers, the sonic performance is not compromised even when driven at higher SPL.

TORUS is also the first product to take full advantage of DISPLAY 3, Martin Audio's all new prediction and optimisation software.

DISPLAY 3 is set to be a powerful tool for both live and installation projects. It works seamlessly with Sketchup for sophisticated venue modelling or allows for more simple venue and shape creation. Initially, DISPLAY 3 will natively support prediction and optimisation of TORUS, with line arrays being imported from Display 2. Over time, however, DISPLAY 3 will incorporate all Martin Audio line array, point source, ceiling and subwoofer solutions for a complete self-contained system design and prediction platform.

The future starts now.

#MartinAudioFamily

Martin Audio has witnessed tremendous change over the years: colourful characters have come and gone, as have owners, and leaders.

Unquestionably, one of the more notable characters was Rob Lingfield, for many years' sales and marketing director, and at the same time chair of the trade association PLASA. Rob tragically passed away in July, 2011, after a long fight with cancer. When the funeral service was held in the tiny, chocolate box village of Smarden, Kent, every seat in the 250-capacity church was occupied. Rob bestowed the company, and the entire pro audio industry like the proverbial colossus, his booming voice and larger than life personality meaning that he rarely needed to resort to a microphone when addressing trade show press conferences — despite the intrusion of so much ambient noise.



Rob Lingfield

But some things have to stay consistent. There has to be a soul to the company, a way of doing something that inherently feels the right thing to do, and a belief that the audience experience remains core to the company's competency and reason for being.

Perhaps it's for this reason that many customers and end users have been extremely loyal to Martin Audio over the decades.

Cooper Canady, owner of RMB Audio, and one of Martin Audio's longest serving customers gave his perspective on the enduring strength of Martin Audio:

"I would like to take this opportunity of reflection to emphasise an early phone conversation I had with David Martin in 1984. As I began building my company, the numerous conversations with David were tremendously valuable, and I want to share the following conversation because I still consider it to be one of the most significant. So much so, that it remains a major thread of my professional tapestry as a Martin Audio user and dealer.



Cooper Cannady (pictured left), RMB Audio



When I see how their speakers are constantly on the leading edge, that's very enticing”

Cooper Canady, owner RMB Audio



It really
makes me
feel like
part of the
company

Cooper Canady, owner RMB Audio

Duke University



UNC Memorial Hall - Chapel Hill, NC



“Human articulation was a main consideration for David. We discussed, that for example, we have an idea of the sound and quality of a ‘good, proper cello’, but generally, the untrained ear would likely not be able to differentiate between brands/makes. I shared this contrast with David. For example, if twenty women are placed in a room, and a single infant is brought to the room, the infant has the innate ability to distinguish his/her mother’s voice. Early life experience presents the unique acuity we share regarding the human voice. Martin Audio factory presets continue to deliver highly intelligible products. The goals, objectives, and desire to design audio systems which enhance the human voice and articulation experience remain alive and well 50 years after David Martin’s vision came to fruition.

“The foremost reason we’ve stayed with Martin Audio is based on my technological evaluation of the design and implementation of their products relative to the markets we work in—and we’re looking at over four decades with me. When I see how their speakers are constantly on the leading edge, that’s very enticing. And I get to balance that against my customer needs, my applications and usage, and Martin Audio’s gear always falls into line. One of the things with the brand is the support I’ve received from R&D, manufacturing, sales, marketing and across the rest of the company itself which means I’m necessarily going to be very much involved with all of that. I do get the opportunity to talk with Martin Audio about where the products are going, things that may be useful to us in the future, so there’s always a dialog. This isn’t just a sale down to a user.”

“The support has been exceptional; the products have been tremendously well received by my customers to the point where they’re very excited to have new Martin Audio products come in. Their speakers have been appearing on more and more riders in the last decade, and whenever we say we have Martin Audio gear coming it’s always well received and has never been declined, so my relationship with Sales and the Factory has been just wonderful. Recommendations from my end are considered on their end and if it’s possible the answer is reciprocated. I get to hear what they’re going to do and that ongoing dialog is tremendously important and it really makes me feel like part of the company, part of the #MartinAudioFamily.”

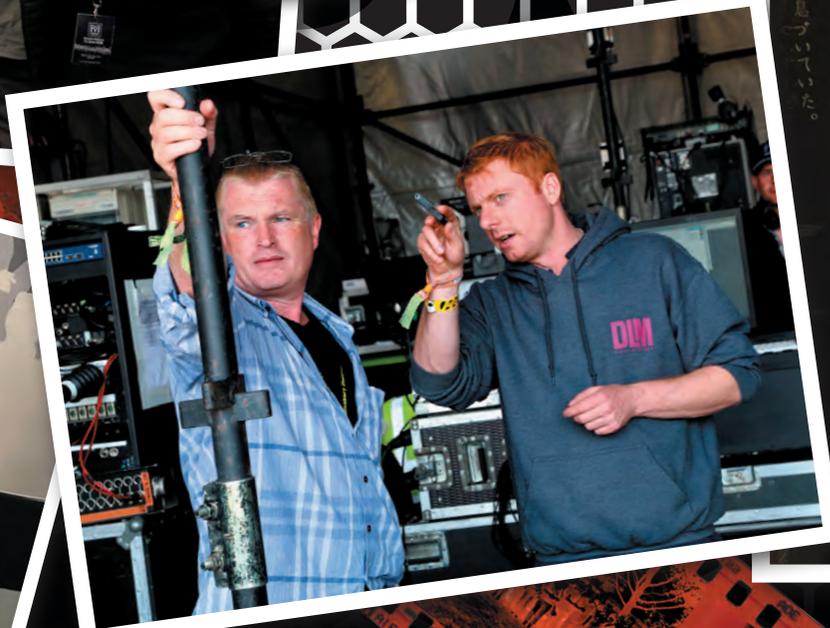


Big Enough To Matter, Small Enough To Care

#MartinAudioFamily









“uniting the audience”

With thanks to everyone that has touched the history of Martin Audio and to everyone that will help build its future.

Martin Audio Ltd
Century Point, Halifax Road, High Wycombe
Buckinghamshire HP12 3SL, England

Telephone: +44 (0) 1494 535 312
Email: info@martin-audio.com
www.martin-audio.com

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