

# raymond cooke

The shift from loudspeaker design as black magic to that as science has been as fundamental (if not as precipitate or dramatic) as that from analog to digital media. And prominent among those who saw to it that science supplanted cut-and-try was the late and deeply missed Raymond Cooke.

Most of us knew him exclusively as the founder, Managing Director, and latterly Life President of KEF Electronics in Maidstone, Kent. Kent is a gently rolling, largely rural corner of southeast England, tucked between the Thames River estuary and the English Channel and dominated by the city of Canterbury, with its history-encrusted cathedral. In the quiet town of Maid-

stone, Cooke discovered a disused building owned by Kent Engineering Foundry, a maker of heavy equipment used in farm-

ing and orcharding, and there he set up his business. He found it more practical to preserve the pre-existing name (as KEF) rather than to invent a new one from scratch.

To some audiophiles, the KEF name has been epitomized by its utterly unique B139 oval design, with a flat diaphragm and concave surround, a version of which is still in production. Even more closely associated with Cooke himself is the use of

Bextrene plastic in building drivers, which he instituted. The company's growth, via a very successful, compact, near-field



*KEF's first home—what is known in Britain as a "Nissen hut." It was owned by Kent Engineering Foundry; hence, KEF.*

b Y K E N K E S S L E R





*As a tribute to its founder, KEF has reintroduced classic models as the Raymond Cooke Signature Series. These are the LS3/5A near-field monitor, co-developed with the BBC, and the radical Model 104/2.*

Model LS3/5A



Model 104/2



monitoring speaker and on to the triumphs of the 104, 105, 107, and 104/2, was to have been the subject of an *Audio* interview by Ken Kessler. Late last year, Kessler began the process by sitting down with Cooke to talk about the time before KEF was founded. Kessler was encouraged to see how much better Cooke looked than he had on their previous meeting. This first stage of the interview completed, they made plans to meet again for its continuation.

It was not to be. Raymond Cooke died on March 19th. He was 70 years old. Among the honors mentioned in his *Times* (London) obituary were Fellow of the Audio Engineering Society and Order of the British Empire.

What follows, then, is but a fragment of the interview that should have been, left the more piquant by its incompleteness. But the information it contains is particularly valuable because it delves into Cooke's years with Wharfedale and into his relationship with his employer there, the legendary Gilbert Briggs. Doubtless Cooke himself will rate that epithet, "legendary," in due course—if, indeed, he does not already. And those who want to understand the legend will want to know about these early years.

*Robert Long*

***Before you created KEF, you worked with the great Gilbert Briggs of Wharfedale. . . .***

*. . . and he was great.*

***Was he your mentor at the beginning?***

He was my mentor in the commercial sense, but not in the technical sense; Briggs was not an engineer and he wasn't a scientist. We got together to complement each other. He had very clear ideas about business. That isn't to say he was the world's greatest businessman or a tower of strength and expertise in the boardroom. But the things that he opined to me during the time that we worked together still come to mind, and they're still true.

For instance, Briggs was not a marketing man. But he once said to me, "The public confused buys nothing." And, of course, he was absolutely right. But what was even more extraordinary was how many of the big companies in our industry failed to heed that simple rule. When, for instance, the Japanese went into four different four-channel systems in the 1970s, they all lost. And look at the number of completely false starts that people like Sony have made. You'd think that they'd have brighter people on their boards to prevent that. But Briggs was always very clear. Every proposition and every move made by his

company was examined from the point of view of how it looked from outside.

***What kind of a company was Wharfedale when you worked there?***

Very solid. It had a high reputation, but it was quite small. When I joined, the turnover was less than half a million pounds a year, total. But the global reputation that Briggs fostered was so well founded that, in its restrictive way, it was highly focused at the prime people. He very quickly made friends with C. G. McProud [*Audio's* long-time editor, owner, and publisher], and it was through contacts like McProud that he came to take his delightful audio books to the States. He eventually arranged the distribution through British Industries Corporation. And that's how we got started; I eventually joined him in editing the books, as technical editor.

When I joined, Briggs was running the firm himself—head boss, production boss, leaflet writer. He was doing all the things in that firm absolutely right. Anybody who's got anywhere in the hi-fi business since, be it in Japan or in the U.S., has always done it his way. I joined to take the technical design off his back. Subsequently I was able to take over other things. When he reached 65 and was getting rather tired of the whole thing, I was the one who'd go off and see distributors. I took over the advertising. We were already writing the books; then he gave me the leaflets to do. I had a remarkable, unintended apprenticeship. When I eventually decided to quit the Rank Organisation after its takeover of Wharfedale and come and start KEF, I already had far more experience than I could possibly have had in the ordinary way in another industry.

How I came to leave Wharfedale. . . I could see high fidelity wasn't going to get anywhere unless a lot more science was applied. Gilbert Briggs was a bit suspicious of science. Or, shall we say, of scientists. He once wrote of the folly of employing technical people at the head of things because they tend to go after brilliant technical solutions rather than practical, commercial solutions. He had seen many firms go down that way.

It was great working with Briggs because, although he wasn't always right in all directions, he was right more than most.

***So what was Wharfedale's technological state at the time?***

When I joined them, extremely conventional. Gilbert Briggs had designed the drivers himself, and they were all paper-coned. Big magnets and so forth. The things worked well; they had high

efficiency. Wharfedale's best system was the three-way, sand-filled corner enclosure.

But Briggs' claim to fame was that from about 1955 onwards, he embarked on a series of lecture-

demonstrations, all over the world, in which the sound of live players was compared with recorded sound. The first one was in Canada, in a university hall, then St. George's Hall in Bradford, and then in 1955 or '56 he hired the Royal Festival Hall in London. You could hire it for a day for £140 [approximately \$300 at the time], would you believe, complete with all the stuff. . . .

**Was Wharfedale one of the most important British makes then?**

It was neck-and-neck with Goodmans.

**Were you starting to want to put your own stamp on a product early on?**

Yes. It seemed to me, being a scientist, that when I looked into sound reproduction—which wasn't my subject; I was originally a chemist, and then an electronics man—if only one could bring scientific procedures even to the experimental work, like listening tests, and then to the production work, we ought to be able to produce a better loudspeaker, smaller and cheaper. I think I was the first person to realize that you didn't have to have a 15-inch loudspeaker to get down to 20 Hz.

I wrote it up for Briggs, on one occasion, that we ought to be able to get that response from a 10-inch loudspeaker provided that the resonant frequency of the driver was sufficiently low. He wrote back that while what I was saying might be theoretically correct, he wouldn't have anything to do with it practically, because a 10-inch loudspeaker would very rapidly go out of alignment and get its voice-coil rubbing. And I

replied that that was true only if you thought of it in terms of the current suspensions. If the suspension were redesigned and made in other ma-

terials, like nylon, it would be possible. This correspondence goes back to 1950 to '51, before Edgar Villchur began building the drivers for AR loudspeaker systems this way.



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some vaguely defined ambitions in radio and TV. They could see a future in domestic entertainment. The notion was that if they could buy a

**Your remarks about the need for more science surprise me, because certain of your contemporaries—ones who are leery of subjectivists—imply that all of the designing back then was pure science.**

No. Very little science.

**Sort of wild 'n' woolly, seat-of-the-pants. . .**

The only people who were into science were Villchur, when he came along, and Paul Klipsch before that. Most of the other people who were great names in hi-fi in the States were just fumbler; they worked strictly on a cut-and-dry basis.

**But the BBC was so influential in the commercial sector, and the dominance of Wireless World. . .**

That was later. Even in the '40s, when I started into it, all development work was done subjectively. One cut a hole, had a listen, cut a bigger hole, had another listen, and so on. There were very few people around in the trade who fundamentally understood how it worked.

We got to the point where I took out a number of patents on enclosure design, as it was very clear that I wasn't going to get anywhere with drive-unit design. The firm couldn't afford the cost of the tooling, and every new design needed a diaphragm mold and die casting plus the magnet. I then finally came up against it in 1959, after Rank acquired Wharfedale. It was staring me in the face that we needed to do something about the design of our diaphragms.

Rank was trying to get into the record business and also had

KEF 104/2



KEF 105



KEF 107

**The first 104/2 was the showpiece of the Reference Series. The Model 105 placed a tweeter and midrange "head" atop the woofer enclosure. The Model 107 combined a "head" with a woofer system like the 104/2's.**

KEF



I got on my  
bike and  
went off  
to Europe;  
when I came  
back, I knew  
I'd got  
a business.

KEF

wholesaler, they'd have the whole thing down pat. Complete vertical integration. So they bought a wholesaler. Wharfedale had been a very successful, long-established firm run by its founders, but the whole thing was beginning to crumble.

In 1960, I thought, "I don't know what I'm going to do here." I was director of Wharfedale, but one never got to talk to the people in London. I wasn't being introduced to Rank and couldn't speak to the new bosses. It became clear that Briggs wasn't anxious to leave; on the other hand, he had turned 70, so he wasn't scintillating or looking to the future. He was just trying to keep his little company together for the benefit of the people who had worked there for a long time. There was no point in my talking about new ideas.

#### **Was it hard creating a hi-fi company in 1961?**

Because my relationships in the industry were so good, I had no problems starting up. At a meeting in Paris, at the Festival du Son, John Gilbert of *The Gramophone* said, "I'll go on record for the British press if you decide to start on your own. Call a meeting to explain your product, and we'll all be quite happy to take tea." And I did just that the following November, and everybody came. In

droves. Percy Wilson, Technical Editor of *The Gramophone*, said, "We'll support you—glad to see a new face." They were getting a bit tired of some of the older faces when they didn't seem to be doing anything.

We formed KEF legally in September 1961. We finally managed to get assembly started about the end of October and managed to put together at least two of everything we intended to offer. There was a three-way system in a thin box, the same again in a 4-cubic-foot cabinet, which had much better bass, a line-source speaker, and a very thin, flat speaker to go against the wall. We organized the meeting for the whole day. In the morning we set up, and in the afternoon everybody arrived—the press, wholesalers, that sort of thing. Ralph West actually took over the demonstration, and we went on through the evening. By the end of that day I knew we had no market in the U.K. at all. One by one, the wholesalers all said, "We need another loudspeaker line like a hole in the head."

#### **Too many brands even in the early '60s?**

Too much product, too few sales. And so in the end, I got on my bike and literally went off to Europe. And after a week in Europe, I came back and I knew I'd got a business. A

I first met Raymond Cooke about 30 years ago and later

worked with him for 25 years at the loudspeaker company he founded in 1961, KEF Electronics, Ltd.

Raymond was a stern but stimulating taskmaster who demanded from his co-workers the clarity of thought and attention to detail he so admired in his mentors. Half-formed hypotheses, masquerading as facts, were quickly challenged but not necessarily dismissed. He liked to say, "Your theory on the laws of gravity are interesting—now let's throw the stone and the feather from the top of the tower, and then we'll discuss it." Raymond valued action as much as he valued ideas, and he had financed one of the best-equipped acoustic laboratories so that pet theories could be

## CODA

by Laurie Fincham

put to the test. To him, hard scientific facts always far outweighed wit and opinion. An indefatigable con-

versationalist and raconteur, he loved to discuss and argue about his two lifelong passions, music and the science of musical reproduction, with anyone who would listen. Raymond influenced a whole generation of engineers. An excellent lecturer and writer himself, he encouraged others, including me, to follow in his footsteps.

Raymond was charismatic, catalytic, sometimes cantankerous but always compassionate. Knowing him, and working for him, was a rewarding experience. I would not have missed it for the world.

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