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Classic Gear: The Meyer UPA-1

Rob Halliday takes a nostalgic but instructive look back at the tools that have shaped the industry . . .

Turns out that it's audio manufacturer Meyer (pronounced *Myer*) Sound's thirtieth anniversary this year. An appropriate time, then, to celebrate one of their products, many of which could doubtless be considered classics. For now, let's consider one that's nearly as old as the company and, as such, helped to put them on the map: the UPA-1 arrayable trapezoidal loudspeaker.

Introduced in 1980, the loudspeaker was actually descended from another range, the JM-1, JM-2 and JM-3 designed, as the initials suggest, by Meyer founder John Meyer but while working for another audio company, McCune Sound Service in California. One of Meyer's colleagues there was legendary sound designer Abe Jacob, personal mixer to stars such as Jimi Hendrix and sound designer to a generation of new musicals from before *Hair* to beyond *Cats*.

Jacob used the JM loudspeakers, available for rental only, on *Evita* in London. For his next show in town, *The Best Little Whorehouse In Texas*, he instead requested a new loudspeaker called the UPA-1, designed by the same person but now working for himself. Andrew Bruce of sound rental company

Autograph recalls purchasing the loudspeakers with serial numbers 5, 6, 7, 8 and 9 . . . and being surprised to discover that these compact looking units were more than capable of filling the vast open spaces of the Theatre Royal Drury Lane.

The UPA-1's design came from work Meyer had carried out as director of the Acoustics Laboratory at the Institute for Advanced Musical Studies in Switzerland, funded by a philanthropist who gave him a free hand to research and design anything he wanted in the audio field. Meyer investigated everything from the sources of non-linearity in compression drivers to the best materials for loudspeaker cabinets before returning to California to form, with his wife Helen, a company intended to put theory into practice.

At launch, the UPA-1's unique, defining external features were its trapezoidal shape, and its outboard active Control Electronics Units. The patented shape, constructed from premium birch plywood protected by high quality, vastly expensive paint, allowed adjacent units to be tightly packed into wide-coverage horizontal arrays. The controller, a development of units first created to handle

subwoofers for the debut 70mm release of *Apocalypse Now*, was installed before the amplifier; there it acted not only as a crossover, but also aligned the phase and alignment between the patented horn-loaded tweeter and the 12" cone woofer, optimised frequency response and provided overload protection.

The result was a relatively compact speaker - just 370mm wide by 570mm high - with the performance characteristics of a much bigger unit. The speakers also benefitted from a rugged, high-quality construction and careful unit-to-unit matching, all carried out at Meyer's factory in Berkeley, that means units of all ages are still in use today. In inducting the product into its TECnology Hall of Fame, the Mix Foundation noted that 'the era of the modern sound reinforcement speaker began with the UPA-1'. Today, its successor, the UPA-1P, continues the tradition but in powered form to offer even higher performance.

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