

75 Years After Mole-Richardson Founded, Its Spirit is Still Young

Co-founder Peter Mole, SMPTE President
50 years Ago, Paved Path to Future

By Bob Fisher

Pietro Mulé was born in Sicily in 1891, the same year Thomas Alva Edison opened the Black Maria Studio and began producing short experimental motion pictures in Orange, NJ. Pietro's mother died when the boy was barely four years old, and, soon after, his father moved the family to Manhattan, where Pietro Mulé became Peter Mole. The boy's formal education only lasted through the sixth grade; afterwards, he and his brothers worked at odd jobs, including touring the vaudeville circuit with a bicycle act.

Mole enrolled in a two-year engineering program at a college in Buffalo, NY, when he was 20. In 1915 he was hired by Edison's General Electric Co. By then, Edwin Porter, Billy Bitzer, and other first generation cinematographers were controlling the use of light as a form of artistic expression.

Mole spent the next nine years designing lighting instruments, ranging from high-intensity carbon arcs used for motion picture projection to incandescent tungsten lamps for exposing images on experimental color films and 24-in. "sun arcs" for set lighting. He moved to Hollywood in 1923 to satisfy a craving for practical experience in lighting film. At Metro Goldwyn Studios, he worked as a "juicer," or lamp operator, and then joined the staff at Creco, Inc., the major provider of arc lighting instruments for film studios.

Mole-Richardson Company Created

At Creco, Mole met E. C. Richardson, the shop superintendent and a partner. In 1926, Mole and Richardson shared a vision for a new type of tungsten filament lamp designed to augment the transition from orthochromatic to panchromatic film. Orthochromatic black-and-white films were only sensitive to blue and violet light; every other color recorded as black on film. (That's why some characters in early movies seemed to have black lips.) Makeup, costumes, set design, and even lab work were all geared to compensate for limitations inherent in the camera film.



Peter Mole operating a Mitchell camera, ca. 1929-30.

Panchromatic film introduced in 1922 saw all the colors of the rainbow and faithfully reproduced each of them in gray tones that were equal to the brightness of the colors.

When their employer rejected their vision for a new type of light designed for panchromatic film, Mole and Richardson set up their own shop in a garage in Hollywood. They formally organized the Mole-Richardson Company in June of 1927.

The following year, at a meeting of the Society of Motion Picture Engineers (SMPE), Mole presented a paper titled "The Use of Incandescent Equipment in Motion Picture Photography." He cited 12 types of lamps that were being used by filmmakers to accommodate both the cost-efficiency and the controllability required for the artistic rendering of light. His paper opened

and closed with a discussion about the need for manufacturers to work closely with the Academy's new research council: producers, film laboratories, and members of the American Society of Cinematographers (ASC).

Incandescent Lamps Replace Arcs

In 1928, incandescent lamps invented and manufactured by Mole-Richardson quickly began replacing the more cumbersome arc lamps that proved too noisy for the transition to films with synchronized sound. "The carbon arcs made a popping noise, which caused big problems for the people responsible for recording sound on sets," explains Mole-Richardson Executive Vice-President Larry Mole Parker. "Mole-Richardson incandescent lights were relatively quiet.

"This transition was no small effort. In those days, it wasn't unusual for a cinematographer to use 300 lights on a single picture. Mole-Richardson designed, built, and rented equipment and also sold lights to the studios and other rental companies."

Mole-Richardson received a Technical and Scientific Oscar in 1928 for its incandescent illumination research.

That wasn't a bad start for a new company, but it was just the beginning. Peter Mole introduced other innovative lighting concepts in various papers presented at SMPE (there was no T for Television in those days) conferences during subsequent decades. In 1948, he received the SMPTE Medal of Progress, and he served as SMPTE's President from 1951 to 1952, a pivotal time when the organization was broadening its scope to embrace television. Peter Mole died in 1960 and Warren Parker became president of the company.

"My grandfather had a great love for SMPTE, because it was an opportunity to get together with engineers from different companies and figure out how to give the artists the tools they wanted."

—Larry Parker

"but I got ideas by watching Milt Krasner (ASC), Leon Shamroy (ASC), Joe Ruttenberg (ASC), Russ Metty (ASC), and other great cameramen light. We were just starting to make lamps with quartz bulbs in 1962; we called them Mickey Moles. We put a 5K quartz bulb in a lightweight housing designed for a senior 2K.

Later, we introduced our first soft light."

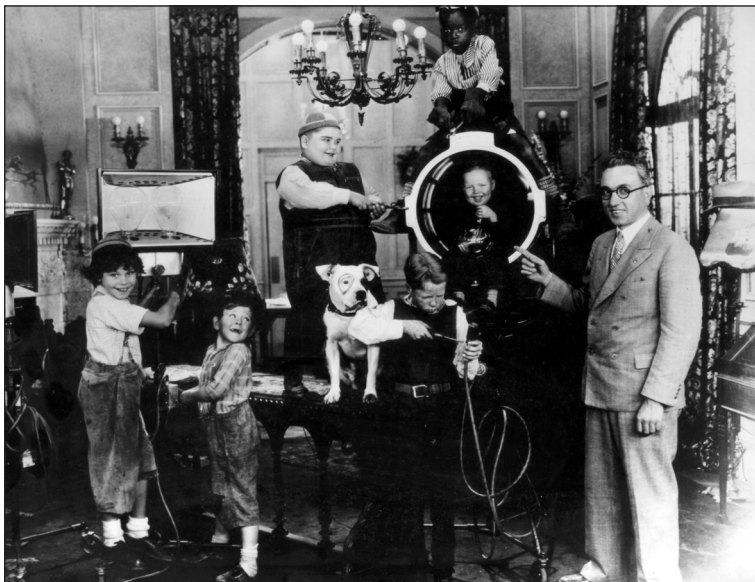
New Products Emerge

In those days, Parker was doing a lot of still photography with a makeshift bounce light. He experimented with putting cardboard on both sides and a hood over the top of a quartz lamp. That became a model for a soft light consisting of a quartz lamp with a reflector and switch for choosing four different settings for the intensity of the beam.

Many times, the line between the past and future blurred. When Shelly Johnson, ASC, was preparing to film *Jurassic Park: III*, he wanted to seamlessly match lighting in jungle sequences filmed in Hawaii with footage produced on a stage in Los Angeles. "We were building a new type of light that provides strong parallel beams," Parker says. "It was something my grandfather worked on during the 1920s. We were reinventing the wheel using lighter weight materials and newer mirrors with improved reflective qualities.

"But Shelly wanted something bigger with more output than the parallel beam projectors.

So we built beam projectors with 36-in. mirrors and two globes that were put in four large baskets to carry their lights...Each basket carried one 20K and about seven 10Ks. He could use them in unison or separately to get



Mole-Richardson co-founder Peter Mole on the set with the Little Rascals in 1929.

Larry Mole Parker Gets Involved

Larry Parker has a vivid memory of receiving his first still camera, at the age of 11, from his grandfather Peter Mole, who also taught him how to use it. At 15, he began spending his summer vacations working in the back shop at Mole-Richardson.

Parker's grandmother sent him to visit the Mole-Richardson companies of Europe after he graduated from high school in 1960. "I was in Germany the day they closed the border between East and West Berlin in August 1961," Parker recalls. "I saw it happen. I also visited sets and watched great cinematographers lighting scenes for *Cleopatra*, *El Cid*, *Billy Bud*, and *The Longest Day*."

Soon after returning to Los Angeles in 1963, Parker's father advised him to decide whether he wanted to be a filmmaker or design lighting equipment. "I had no formal training," he says,



Delivering Mole-Richardson lighting equipment to the movie set, ca. 1929-30.

“Peter Mole was President of the SMPTE from 1951 to 1952, a pivotal time when the organization was broadening its scope to embrace television.”

“Mole-Richardson records show support for the SMPE (later SMPTE) since 1928.”

shafts of light going through the trees. They were so realistic that no one could tell which shots were filmed on the stage.”

Parker says 75 years after his grandfather co-founded Mole-Richardson, the basics are still the same. There is still a bulb, a mirror, and a lens on some type of head. He notes that the components can be configured in different ways. Lamps can be made smaller or bigger, lights can be harder or softer, colors can be added or subtracted, and, someday, lights powered by solar cells may eliminate reliance on cables and generators. Parker also points out that techniques and aesthetics are constantly evolving.

Mole-Richardson Company at 75

Parker says that Mole-Richardson keeps its finger on the pulse of the future by conducting workshops for film students. The first session deals with the basics of electricity, safety procedures for grounding, and how to lay cable on a set. The second session is learning the names of lights and how they work. “We can’t teach aesthetics, but we can show them how to use the tools,” he says.

“Many cinematographers enthusiastically participate. One day we had a seminar going on and Vilmos Zsigmond (ASC) happened to walk in. If the biggest movie star were with him, the kids still would have flocked around Vilmos. They recognize that he is an artist...Some 600 students have participated in our seminars, and most of them are future directors and

writers who already appreciate the art of lighting.”


Parker points out that after his grandfather died, a tribute published in the *SMPTE Journal* noted that Peter Mole understood that technology should never call attention to itself...Mole was successful because he served the needs of the storytellers. Parker says that is still the golden rule for the company. “My grandfather had a great love for SMPTE, because it was an opportunity for him to get together with engineers from different companies and figure out how to give the artists the tools they wanted,” Parker concluded.

Seventy-five years after Mole-Richardson was founded, the company is still headquartered in Hollywood where it designs, manufactures, sells, and rents lighting equipment directly and through distributors in the U.S. and Canada.

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An early (1960) ad.