

SEMI - The Early Years

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Introduction

In the late 60s, it was the custom for those companies serving the semiconductor industry to exhibit in the Wescon show on the West Coast (alternately in San Francisco and Los Angeles) and the IEEE show on the East Coast. These two shows were all encompassing in that I.C. devices were shown alongside semiconductor production equipment. They also included huge stamping presses used for P.C. boards such as later might be exhibited in an ISHM show. Nevertheless, it was becoming increasingly obvious that semiconductor production equipment and materials would eventually become the majority of the exhibitors and certainly occupy the most space. Shortly after Bill Hugle's company, Hugle Industries, was organized on February 3, 1966, it too became an exhibitor in the IEEE and Wescon shows. It became increasingly evident to him that a new show for semiconductor equipment and materials was needed. Consequently, at the IEEE show in March 1970, Hugle gathered together in his booth the representatives of the companies in this field to discern the problems.

I. The Threat

During the meeting at IEEE in March of 1970, the group gathered in Hugle Industries' booth decided they would ask for a section of the show to be dedicated to semiconductor equipment. The new show manager, just recruited from Wescon, refused the group's request for the meeting saying he would only meet the exhibitors one at a time. Thus, the threat of withdrawal was ignored and the battle ensued. Although Applied Materials was one of the most vocal complainants because of a large noisy press in the next booth, it later became one of only two companies to denounce the new associations.

II. Organizing a New Association

Following the failure of the initial meeting in New York, a second meeting was called in July 1970 to organize a new association. Fifty-five companies attended this meeting. In the meantime, Hugle had contacted Fred Kulicke, the president of Kulicke & Soffa, about the idea of the new association, originally called Semiconductor Equipment and Materials Institute, and show, called SEMICON. He gave his enthusiastic support and agreed to chair the first meeting. At this meeting, held in Palo Alto, Hugle was named president. An important additional supporter was John Dannelly, vice president and co-founder of Thermco.

Ben Beall, then president of Lindberg Heavi Duty, denounced the organization and its principal backers, saying anything attempted by the likes of Hugle, Kulicke and Dannelly is doomed to failure. This denunciation was seconded by Applied Materials.

For the record, it should be noted Lindberg Heavi Duty was the chief competitor of Thermco, and Applied Materials was the chief competitor of Hugle Industries.

III. The Principals

Much has already been said about Hugle, the principal founder and first president, and more will be said in the section "About the Author." If SEMI had two founders, the other would be Kulicke. He was the president of the largest semiconductor equipment company in 1970. He also put up \$5,000, as did Hugle, to found the organization. If SEMI had three founders, Dannelly would have to be included. He enthusiastically supported SEMICON, although he had differences with the others over both the show and the organization of SEMI.

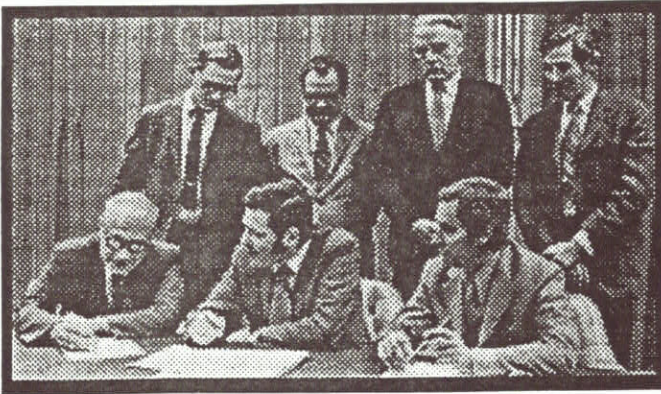
As one of the best salesmen ever to exist in the semiconductor equipment business, he thought SEMI's activities should be limited to the show alone. Even the technical program was considered superfluous. As the subsequent history of SEMI demonstrates, simplicity is always defeated by complexity. Kulicke had his own pet idea, which was that no exhibitors could appear in any other show but SEMICON. Although this principal was adopted, it was never enforced.

The Directors

Once the organization was in place and its principle objectives set, it was necessary to choose a board of directors. The first directors chosen were Bill Hugle; Philip Gregory, chief purchasing agent of Raytheon Semiconductor; Trevor Law, president of Galamar; Bob Shreiner, manager of Fairchild Test Systems; Fred Kulicke, president of Kulicke & Soffa; John Dannelly, vice president of sales and marketing for Thermco; and Howard Moss, vice president of administration for Texas Instruments. Later, Roger Borovoy, patent counsel of Fairchild, was added as a director and counsel of the organization, and Don Sutherland, DuPont vice president for semiconductor products, was added as a director.

The logic of this distribution was that Hugle and Dannelly represented front-end equipment, Kulicke represented assembly equipment, Law and Sutherland represented materials, and Schreiner represented test equipment. Gregory and Moss represented semiconductor equipment purchasing.

It should also be mentioned that Gregory and Moss were added with the certain knowledge that many exhibitors would come to the first show because of them. For this and other reasons, Gregory was chosen as the director responsible for the show. Finally, Borovoy was chosen as counsel and director because of his excellent legal and technical abilities.



SEMI Board of Directors, top left: Robert J. Schriener, Dr. William B. Hogle, Philip L. Gregory, Donald C. Sutherland; seated: Howard Moss, Trevor Law and John Dannelley.

A picture of this board with all but Kulicke and Borovoy is shown, together with a short excerpt from the board members about this picture. All of the original directors except Schreiner were friends of Hogle and chosen by him. Gregory, Moss, Law and Dannelley are now deceased. The board of directors set down the principles of the SEMI organization as follows:

- 1) Organize and operate annual trade shows that will serve to promote the sale of products of the Institute members.
- 2) Gather and provide to its members statistical information on the size and growth of our industry.
- 3) Promote better service to the microelectronics industry by encouraging the technical contributions of its members to the advancement of semiconductor and other microcircuit manufacturing.
- 4) Develop and promulgate the use of standards in equipment specification and nomenclature.
- 5) Cooperate with other business associations and industry organizations in all areas that would help to strengthen and improve the semiconductor and microelectronics industries.
- 6) Gather together those companies and individuals servicing the semiconductor and microelectronics industries to exchange ideas and work jointly toward solving common technical problems.

The Show

The board of directors at its August 13, 1970, meeting decided the first show would be held January 26-28, of 1971. On the advice of the original show managers, Freeman and Company, it was decided that the location would be the San Mateo Fairgrounds. Due to a number of delays, the show was postponed until its final date of May 25-27. These delays resulted in the show managers resigning the account, saying the show would be a major failure. Nevertheless, their recommendation of the San Mateo Fairgrounds remained, and one of Freeman's employees, Penn deRoche, remained to help Semi with its first show.

Gregory found a replacement for Freeman in Rich Banks, who had been a manufacturers' representative before he formed Golden Gate enterprises to produce the show.

Perhaps the greatest problem that SEMI faced was to get exhibitors to come to the first show and not wait to see how it went and then consider exhibiting in the second show. If the first show failed to get a good number turnout, SEMI and SEMICON would disappear. This probably was the biggest challenge SEMI faced in its entire history. Hugle called in many favors he had given to friends to get them to exhibit and, many early exhibitors were former employees of his. As mentioned earlier, Gregory and Moss were invaluable in pressuring their suppliers to join the exhibitors. Of course, there were many who exhibited because they shared the goals and objectives of SEMI.

There were many unusual incidents associated with the first SEMI show, but most of these involved the Royal Coach Hotel (now Dunfey's). Promises of transportation to the Fairgrounds never materialized. Long lines of attendees were everywhere waiting for non-existent buses. The hotel's buses were busy taking people from the airport to the hotel, thus taking people to the Fairgrounds was conveniently forgotten.

The layout of the hotel was so unusual that many an attendee had trouble finding his/her way from the bar to their room. One innovative guest tied a string to his room door knob and took the other end to the bar.

The show headquarters was only at the Royal Coach for two years before it was moved to the Villa Hotel where it remained for many years.

The hotel had double-booked all the rooms. This occurred because a hotel clerk became angry at the management and threw away a complete set of bookings. The hotel then made a second round of bookings. Therefore, there were 2 guests for every room. The hotel decided that it would follow the practice of first-in, first-out, so the first guest to check in was given the room. When the second guest arrived, the clothes and baggage of the first guest was put in the hall and the second guest moved in.

The show profits were forecast \$6,800 as a minimum with revenues of \$45,750 and expenses of \$38,950, The actual income was \$37,789 in exhibit receipts and \$8,603.70 in registration fees, for a total of \$46,392.70. Expenses were \$31,986.35, leaving a profit of \$14,406.35, more than double the initial minimum forecast.

Growing to Maturity

As time progressed and SEMI and SEMICON's profitability increased (SEMI was a non-profit organization!), it was possible to achieve many of the original goals. Law, the director who proposed and pushed the standards activities, was able to establish a firm base in his area. Joel Smith, who had edited Hugel's publication, *The Hugel Bugle*, became the first editor of SEMI-NEWS, started in the third year of SEMI's existence. Hugel and Kulicke organized a considerable government presence both in Washington and Sacramento. Schreiner organized and published the first reliable statistics on semiconductor equipment and materials. During the energy crisis, SEMI organized a separate division of semiconductor companies to cope with ways to reduce diffusion furnace energy consumption. After Moss (SEMI's second president) strongly objected to the inclusion of this group in SEMI, the participants formed their own group, the Semiconductor Industry Association (SIA) which resulted in a long, fruitful cooperation with SEMI.