

MiCon 90



Advances in Video Technology for Microstructural Control

George F. Vander Voort, editor



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Technology for Microstructural
Control***

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Dr. Halle Abrams
1938-1989

The **MiCon 90** symposium was dedicated to Dr. Halle Abrams, one of the most active E-4 members over the past two decades, who died unexpectedly on 15 October 1989 at age 51. It is fitting to recognize Halle in this way as he was one of the originators of the **MiCon** symposia and was active in all four, including this one. He was a co-editor of **MiCon 78** and **MiCon 82** and a member of the organizing committee for these two, plus **MiCon 86** and **MiCon 90**. He also published a paper in **MiCon 78**.

A native of New York City, Halle did his undergraduate studies in chemical engineering at the Polytechnic University of New York, graduating cum laude in 1959. He obtained M.S. degrees in chemical engineering from the New Jersey Institute of Technology and in metallurgy from Lehigh University. In 1968, he received a Ph.D. in metallurgy and materials science from Lehigh University.

Halle began his career at the former Western Electric Allentown plant where he worked for eight years. Of the seven papers he published during this period, two were on electropolishing - perhaps an indicator of future developments. In 1968, he became a research engineer at Bethlehem Steel's Homer Research Laboratory, an association that continued until his death. His research there centered on alloy development, chiefly with



George Luciw, staff manager, presents Halle with a Certificate of Appreciation plaque for his role as E-4 chairman.

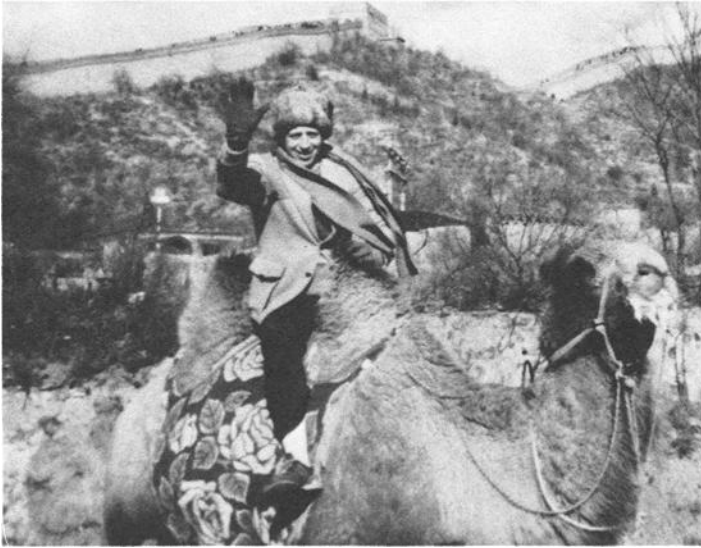
plate steels, quantitative metallography, strengthening mechanisms and structure-property-processing correlations. He developed BethStar 80, their 80 ksi yield strength plate grade. In the 1980's, he was heavily involved with linepipe orders, and headed HRL's involvement with the Northern Border and Trailblazer linepipe projects. His work earned him the D. J. Blickwede Research Recognition Award.

Halle's work led to four patents and he authored or co-authored thirty papers. Besides co-editing the first two MiCon symposia books, he also co-authored ASTM STP 557, **Metallography - A Practical Tool for Correlating the Structure and Properties of Materials**.

He joined ASTM and Committee E-4 in 1970 and was an extremely active member, devoting most of his spare time (and then some) to E-4. He was a subcommittee chairman and moved through the offices culminating in the chairmanship from 1982 to 1985. He will always be remembered for his refinements to the intercept method of grain size measurement, the "Abrams Three-Circle" method. A devotee of statistical analysis, he concentrated on optimizing the efficiency of intercept grain size analysis. This approach was added to E112 in the 1974 revision. He also was involved with the development and revisions of E-4's standard on manual point counting, E562. Indeed, his last major effort for E-4 was on the 1989 revision of this standard in which his round-robin conducted nearly twenty years ago (see STP 504, pages 138-182) was evaluated according to E691-87.

Halle's efforts on behalf of metallographic standardization did not go unnoticed. In 1983, he received the ASTM Award of Merit (fellow of ASTM); in 1977, he and W. W. Bayre, were named co-recipients of the first L. L. Wyman Memorial Award given by Committee E-4 on Metallography.

Halle was a dynamic, energetic individual who lived life to its fullest, whether at work, at ASTM meetings, or on the racquetball court. He worked hard and played even harder! He was enthusiastic, even to excess. He was brash but lovable. E-4 meetings, especially Sub 13 meetings, were never dull when Halle was there! We will miss him.



Halle at the Great Wall in China bids farewell to his friends.

Foreword

The papers in this publication, *MiCon 90: Advances in Video Technology for Microstructural Control*, were presented at the MiCon 90 Symposium on Advances in Video Technology: Materials Science Applications held 23–25 May 1990 in San Francisco, California. The symposium was sponsored by ASTM E-4 on Metallography. George F. Vander Voort, Carpenter Technology Corporation, presided as symposium chairman and is editor of this publication.

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