## Introduction

Architects and design engineers have available today a wide variety of brick, stone, plastics, glass, wood, and metals from which to select materials of construction. The availability of this wide variety of materials has made it imperative that up-to-date information about these potential building components be published for use by the modern architect and engineer.

Architectural pioneers began using the stainless steels almost 40 years ago but surprisingly little useful information can be found in the literature on the use of stainless steel for architectural applications. "The Book of Stainless Steels," edited by E. E. Thum and published by ASM in 1933, contains a chapter "Architectural Uses" in which William Van Alen, the architect, describes the original use of stainless steel in the Chrysler Building and in the Empire State Building in New York City. Mr. Van Alen predicted a "wonderful future—for stainless steel in architecture—for it is probably the most permanent building material known."

Authorities in metallurgy, engineering, architecture, and art presented the papers published in this volume. These papers describe the corrosion resistance, the physical and mechanical properties of the stainless steels, present engineering and design concepts, and treat with fabrication and erection techniques. Also presented is a comprehensive report covering the inspection of architectural installations in buildings in the United States and Canada. Of particular interest are the papers on stainless-steel art forms such as murals and sculpture.

This volume does provide up-to-date information that can be utilized by architects and engineers who wish to consider these remarkable alloys for architectural applications.

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