

HANDBOOK OF
SPECIALTY
ELEMENTS
IN
ARCHITECTURE

ANDREW ALPERN, AIA

HANDBOOK OF SPECIALTY ELEMENTS IN ARCHITECTURE

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EDITOR IN CHIEF

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The editors for this book were Harold B. Crawford, Patricia Allen-Browne, Virginia Blair, and Ann Gray; the designer was Elliot Epstein; and the production supervisor was Sally Fliess. It was set in Souvenir by University Graphics, Inc. It was printed and bound by Halliday Lithograph.

To working architects, everywhere

Preface

The professions of architecture and interior design often demand of their practitioners a significant amount of knowledge in specialized fields beyond the normal realm of practice. Obtaining this knowledge for the infrequent projects that require it can mean timeconsuming research and the tracking-down and acquisition of an extensive library of reference books and manufacturers' catalogues.

This handbook obviates all that. It gathers together in one convenient volume the essentials of twelve specialty areas of concern to architects and designers. Presented in twelve chapters, this material gives the reader a sound general understanding of each subject specialty as well as offering a wealth of specific working data. From the information supplied, the design professional will be able to handle most situations unaided. For more complex projects the reader will gain sufficient working knowledge to interact productively with consultant specialists who may need to be retained.

The chapter subjects have been selected to encompass those specialty areas that are encountered sufficiently often to make this handbook one to which designers will regularly refer. The material complements other commonly used reference works, filling in the gaps where coverage has been thin or nonexistent. Each chapter is written from the point of view of the working designer, and presents its subject matter in readily understood terms.

Chapter 1, "Audiovisual Communications," presents the theory and practical application of integrating audiovisual communications and presentations facilities into interior architecture in a manner that makes the medium totally subservient to the message, and that enables the person presenting that message to concentrate on the presentation content rather than on its mechanics.

Chapter 2, "Exterior Plantings," presents a simplified approach to exterior plantings that relate closely to buildings, and includes specification data and good photographs of effectively executed plantings.

Chapter 3, "Trees and Plants for Interior Design," presents a similarly easy-to-understand approach to interior plantings for buildings, and includes a very extensive

encyclopedia of suitable plants, giving photographs, characteristics, environmental requirements, and specification data.

Chapter 4, "Sculpture," presents an approach to working with a sculptor and integrating sculpture and architecture. It includes data on pertinent characteristics of various commonly used sculpture materials and also includes a suggested form of agreement for commissioning a sculptor, as well as numerous photographs of sculptures used in conjunction with buildings and architectural interiors.

Chapter 5, "Interior Art," describes the types of art that are suitable for commercial interiors and discusses framing, lighting, insurance, and different ways of obtaining art. The chapter includes information about working with a professional art consultant, and is profusely illustrated.

Chapter 6, "Adult Outdoor Recreation Facilities," presents a theory of adult recreation and discusses the factors that must be considered in designing recreational facilities for adults. Data is given on construction materials that can be used, and planning and construction drawings are included for most commonly played varieties of recreational games.

Chapter 7, "Juvenile Play Areas," presents the essential background on how and why children play. It shows how the designer can create an environment conducive to play and discusses materials, construction techniques, and safety. Data on play environments for children of different ages are included.

Chapter 8, "Decorative Pools and Fountains," tells how the use of decorative pools and fountains can enhance architecture and the built environment. It shows how water features can be integrated with a building design and presents the technical data necessary to understand the design of a pool or a fountain. Included is a detailed case history of the development of a major public fountain display, complete with drawings and photographs.

Chapter 9, "Exterior Lighting," presents a simplified approach to designing the kinds of outdoor lighting such as would commonly be encountered by architects. The chapter discusses how lighting can be used as a creative tool for making the built environment more usable and enjoyable, and includes data and discussion of various light sources and how to use them. Costs, maintenance, suitability, and other pertinent factors are covered.

Chapter 10, "Flagpoles," tells you everything you ever wanted to know about flagpoles, in one conveniently usable chapter. Included are the types available, materials, costs, maintenance, sizing, construction details, and specifications.

Chapter 11, "Signage," presents the theory of signage and instant information communication. It shows how to plan a signage program for one or more buildings, both external and internal, and tells about the various types of signs available and when to use which. Detailed specifications for lettering sizes, sign materials, and construction details are given.

Chapter 12, "Designing for the Disabled," tells about the different forms of human disability and shows how the designer can compensate for them. It presents specific detailed drawings showing how various common architectural situations can be modified to suit the needs of the disabled.

The authors of these chapters are professionals in their respective fields, and have drawn on their many years of experience and practical knowledge in preparing their

material. The pragmatic information they present offers a useful support to an architectural or interior design practice and can serve as a constant ready-reference source of help and advice.

We have developed an excellent professional handbook, but of course we welcome suggestions for improvement. Letters offering comments or proposals for additional chapters will be well received by the editor in care of the publisher.

Andrew Alpern, AIA

New York
May 1981

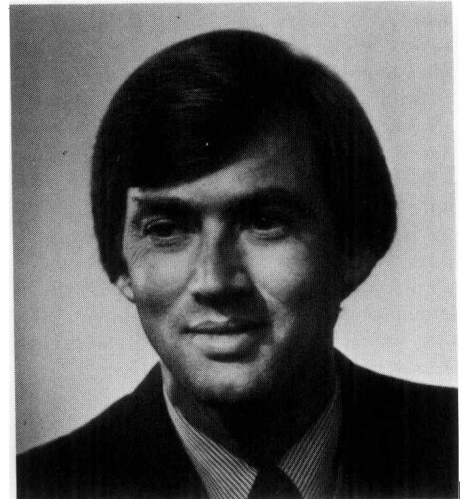
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Thanks are owed to Jeremy Robinson who conceived of this handbook and helped bring it to fruition. Thanks also to Harold B. Crawford and his colleagues at McGraw-Hill who patiently encouraged the book's development and saw it through the laborious production process. And of course the lion's share of thanks goes to the contributors, without whom the project could not have become a reality. The cooperation of others who provided material is appreciated.

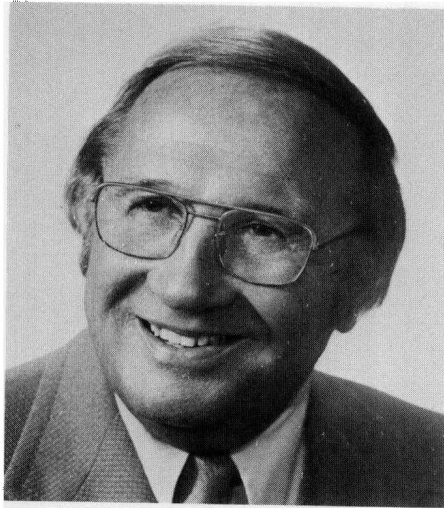
ABOUT THE CONTRIBUTORS



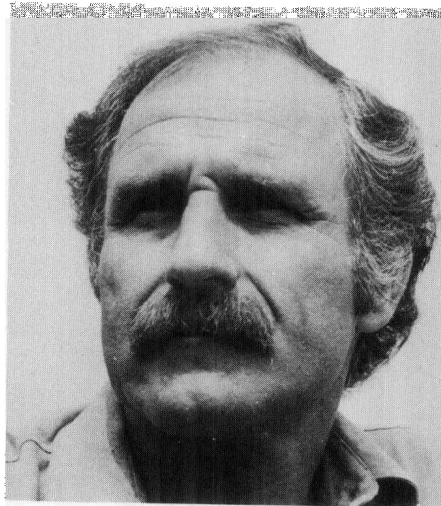
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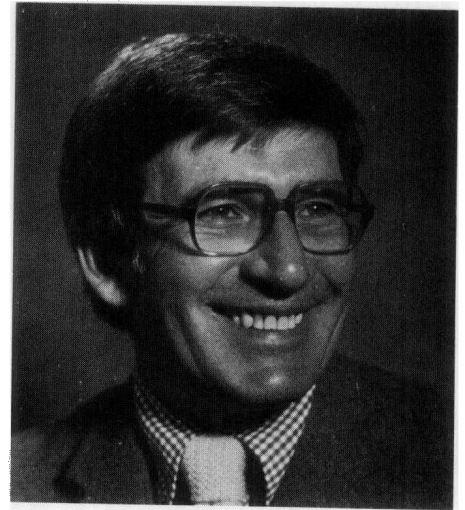
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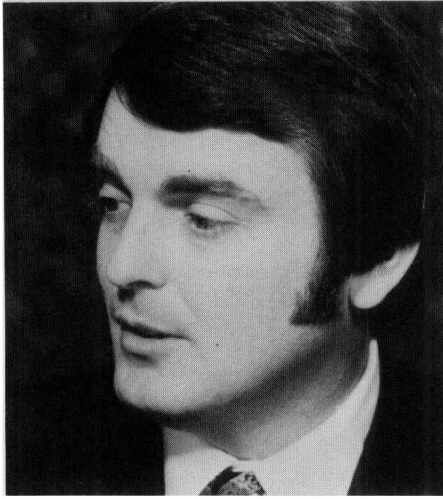
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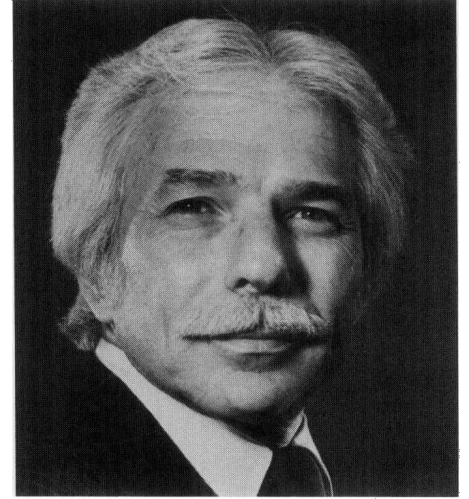
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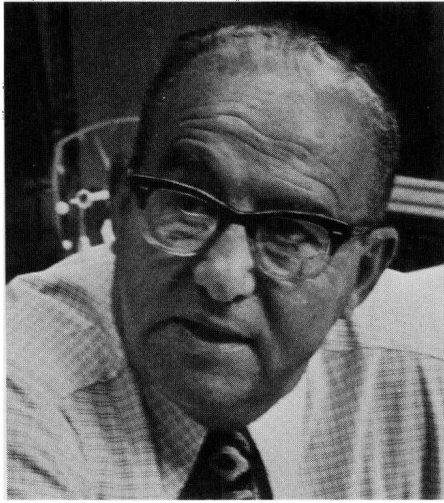
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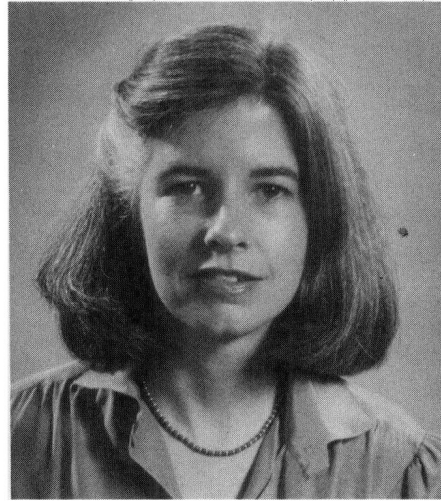
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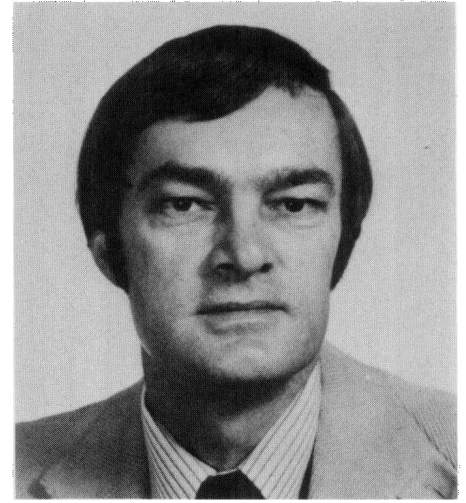
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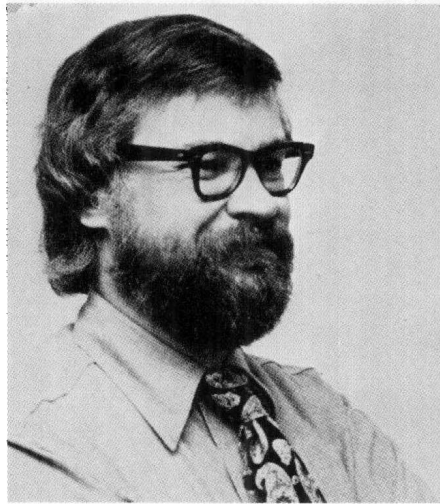
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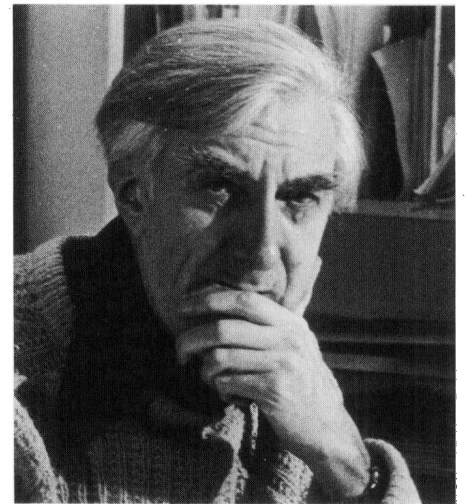
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CHAPTER ONE

AUDIOVISUAL

COMMUNICATIONS

Jerome Menell

INTRODUCTION

Audiovisual communications, commonly called A-V, is a simple way of referring to the variety of means for transmitting information via sight and sound. A-V systems can be as basic as a schoolteacher's talking while drawing a picture on a chalkboard, or they may be as complex as a sophisticated multimedia presentation using side-by-side image comparison, sound-synchronized slide shows with random access capability, front access and remote overhead projectors, videotape programs with projected images, and remote control with complete automation. Such systems can be part of a management communications center, an audiovisual facility, a presentation auditorium, a classroom, or just a simple conference room.

The range of problems that can be solved through the use of audiovisual communications is very broad, and solutions can be varied and complex. A-V facilities are capable of conveying ideas efficiently and effectively if they are designed, engineered, and installed utilizing a thorough knowledge of the available options and the capabilities of each. The increasing use of such facilities by educators and business people with little or no technical knowledge has produced a requirement that the systems' operation be logical, uncomplicated, and virtually foolproof. The equally increasing sophistication of those to whom audiovisual presentations are made calls for a level of quality in the presentation methods and material that is well beyond what was considered satisfactory only a short time ago.

It has now been recognized that the components of a well-designed facility include, not only the A-V systems' functional elements, but also the physical accommodations and arrangement for the viewers. Architectural design considerations and technical sophistication are not the sole components of a successful audiovisual system. Equally important is the human element. It is people who initiate the presentations and people who are the recipients of the information they are designed to convey. Regardless of the type of information being presented or the manner in which it is transmitted, the entire process must be people-oriented, with the technical aspects manipulated to suit the human needs, rather than such needs being maneuvered to match technical considerations.