# The Control of Video Production



Leonard Shyles



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# Leonard Shyles Villanova University



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## A NOTE TO STUDENTS AND TEACHERS

The Art of Video Production provides a comprehensive guide for making television programs in the digital age in both studio and field. It covers the technical aspects of the production process but also provides relevant advice and insight on the nature of the audience and the importance of audience analysis to the production process.

The book emphasizes these two areas for several reasons: First, programs that remain unseen cannot be judged successful even if they are of high quality. Therefore, one job of the producer-director is to understand a program's intended audience insofar as is possible *before* the production process begins so as to maximize the chances for winning an audience's attention; a practical advantage of knowing your audience in clear terms (i.e., demographically, culturally, or otherwise) is that it makes every production decision easier.

Second, *all* productions must operate within inevitable constraints of time, space, equipment, money, and personnel. Therefore, it is critical to make the best use of facilities, talent, and crew, to maximize efficiency, program quality, and production values. For these reasons, *The Art of Video Production* emphasizes the conceptual foundations and underlying technical principles that govern the process rather than the latest models of equipment that can surely become outdated in a year or two.

The book presents each chapter in a logical order, but each chapter is written to be self-contained. For instance, since it is not possible to see a video image in total darkness, the subjects of light and lighting design precede the chapter on using the camera. As another example, while it is clear that the book emphasizes audience analysis principles throughout, the writing chapter is designed to be understandable on its own. Therefore, both teachers and students should feel free to use the book in line with their needs. It is meant to be a flexible handbook, designed to fit your needs without forcing a lockstep order.

Chapter 1, "The Video Production Process," gives an overview of how television programs and videos are made, including a description of the preproduction, production, and postproduction phases. It also includes a detailed description of the

jobs of the key personnel involved, telling what each crew member is responsible for during each phase.

Chapter 2, "Video as Communication," as mentioned, emphasizes conceptual foundations of audience analysis from both ancient and modern traditions. Chapter 3, "How Television Works," describes how radio energy makes television broadcasting possible, as well as the nature and role of both computers and telecommunications networks for producing and distributing programs. The chapter explains how sound and images may be converted into radio energy and then transmitted through space at the speed of light. The technologies used to accomplish this have undergone continuous refinement since the early 1900s, but the principles on which they are based have remained a constant since the inception of broadcasting and remain critical to understanding digital video today; without radio energy, much of the commerce in television content would be impossible. The chapter then explains how computers and telecommunications technologies have revolutionized video production, influencing all phases of the process, from shooting to editing to distribution to marketing.

Chapter 4, "Light and Lenses," explains how light interacts with lenses and how lenses and aperture settings produce their effects. Because it does not simply list a set of rules to follow about which lenses to use to achieve certain effects, you will better understand what lenses to use in *any* production situation.

One of the book's strongest features is its treatment of the aesthetic aspects of video production. For example, Chapter 5, "Lighting Equipment and Design," presents a unified rationale for lighting design beginning with a philosophy of *naturalism*. From this starting point, the chapter presents a reasoned approach to lighting in *any* production situation.

Similarly, Chapter 6, "Using the Camera," offers an aesthetic understanding of how cameras and camera mounts may be positioned for different programs. The chapter considers elements of both static and motion visuals and how images and image treatment shape meaning for audiences.

Chapter 7, "Understanding Sound and Microphones," and Chapter 8, "Audio Processing and Aesthetics," explain the physical and aesthetic nature of sound and the proper use of microphones and other sound sources to shape program content effectively for audiences.

Chapter 9, "Graphic and Set Design," addresses a fast-changing production area. While covering some of the latest approaches, including discussion of the more cutting-edge topic of computer-generated virtual sets, it again emphasizes relevant underlying principles referring to both audiences and enduring qualities of the medium. This emphasis affords you the best means of coping with rapid change.

For example, at this writing, the conversion to high-definition television (HDTV, or HD) in American homes has begun. HDTV features, among other

things, a wider 16:9 aspect ratio in place of the still dominant 4:3 screen standard. However, regardless of which format is viewed at any given moment, it is essential for producer-directors to understand how graphic content on any television system affects audience members in broader terms than just aspect ratio differences, including brightness and contrast, scanning area and frame rate, color compatibility, pace of presentation, and so on. All these factors influence how the audience interprets what is presented; emphasizing the relationship of such factors to the audience is one of the book's strong points.

Chapter 10, "Video Processing," and Chapter 11, "Field Production," simplify and organize two major areas of rapid change in the production field. Chapter 10 builds a video switcher from the ground up, starting with the simplest transitions among video sources and advancing logically to the more complex. Then it describes how digital processing has revolutionized the way video signals are handled. The changes brought by the digital platform have market and policy implications that extend beyond the technical aspects of television. Then, Chapter 11 introduces the practical concepts of reach, range, and interactivity to explain how electronic news gathering (ENG), electronic field production (EFP), and large-scale remotes are currently accomplished.

Chapter 12, "Editing: Aesthetics and Techniques," presents both editing theory and method. First, using a fictional sitcom treatment as a starting point, the chapter applies editing concepts to an actual example, thus making theory concrete. Then it discusses the technical side of editing, including the differences between analog and digital, linear versus nonlinear, and on-line versus off-line editing. This approach makes the chapter a current and comprehensive editing primer.

The first half of Chapter 13, "Writing and Script Formats," covers the basic principles of television writing, emphasizing how characteristics of both medium and market affect the writer's task; it also describes the relationship of pictures to words, as well as the value of having a strong sense of the audience. The second half presents clear examples of several script formats, each appropriate to a different production approach. Few comprehensive production texts cover basic writing principles for television in this much depth; some neglect the topic entirely.

Chapter 14, "Producing and Directing," focuses on two different jobs. First, to simplify your understanding of what television producers do, the roles and responsibilities of the producer are examined, stressing five key factors: space, time, material, money, and personnel. Then the chapter focuses on the director's job, emphasizing how good directors make critical decisions, often with little time to spare. The chapter presents directing techniques to make your directing clear and effective.

Finally, Chapter 15, "Performing," teaches you how to put your best foot (and face) forward as a television talent, describing how technical, social, and aesthetic

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aspects of television influence how you look and sound, and how to prepare your best possible performance. In addition, the chapter presents a clear rationale for selecting your wardrobe and using makeup.

Several other features of the book deserve attention. First, this is one of the few if not the only comprehensive production text that features an Industry Voices section, interviews with industry professionals, freelancers, and network veterans, giving their views on the state of the art, the latest trends, and where things may be headed in the future. All were eager to talk about the impact of the transition from analog to digital platforms; many have over 30 years of industry experience. The Voices include a major network chief operations officer, a freelance writer-producer-director, a network station assistant chief engineer and director of planning, a CEO of a video and big-budget film production facility, a video and film producer-director in charge of a digital video-editing lab, and a producer for field coverage in a major market news operation. In addition to sharing their insights, they tell what they look for in an intern or employee. For any student who wants to work in today's field of electronic media or broadcasting, the Industry Voices section is a treasure trove of invaluable advice from the experts.

Each chapter also contains a Professional Pointers section of boxed material, clarifying, where necessary, some of the finer points of technical information, and a list of key terms practitioners expect you to master to be able to work alongside them in the industry. *The Art of Video Production* covers all aspects of television production in both studio and field in the digital age, offering a brief, clear, up-to-date approach to the craft.

Len Shyles Villanova, PA

### PREFACE

Why a new book on video production? Changes in the production field demand a fresh look at the process as the television industry adapts to the greatest transformation in its history: the transition from analog to digital platforms.

Television has accommodated great change before, including the conversion from black-and-white to color during the 1960s and the addition of satellite and cable to augment regular broadcast programming and distribution services. But the current transformation to digital is the most deeply altering.

The adoption of digital platforms has changed not only television technology but also production methods and markets, altering the way television programs are produced, edited, and distributed. It has fundamentally transformed the nature and function of the television industry and the movie business while increasing public access to the means of creating and sharing television content, profoundly changing the relationship of content providers and audiences forever.

From a purely physical perspective, the chief catalyst of the transformation has been the marrying together of three once disparate technologies: broadcasting, telecommunications, and digital computers. The interconnection of these infrastructures enables users with access to a camera, a computer, and the Internet to create, edit, store, transmit, retrieve, and distribute television programs and video content to millions of audience members with unprecedented ease; it is no longer necessary for producers to go to a television station to shoot, edit, and distribute television programs; in short, television production has become more decentralized and democratized.

The purpose of this book is to present modern television production methods in the digital age. It provides you with a brief, clear, conceptual view of all phases of video production in both studio and field.

The Art of Video Production differs from other production texts in two important ways. First, rather than emphasizing the latest products, it explains the underlying principles that govern their operation. Presenting how systems work and their technical characteristics, and not just the procedures for operating a particular piece of equipment, is a central focus of the book. Understanding the enduring principles by which broadcasting, telecommunication, and computer systems work insulates you from feeling that your knowledge is doomed to extinction with the introduction each year of each new equipment model.

Second, the book presents a more in-depth treatment than other production texts of audience analysis principles in production planning, stressing the value of understanding a program's topic, content, and purpose, as well as the relationship of audience analysis to your program goals. Communication concepts from both ancient and modern traditions are therefore presented to clarify how the production process may be simplified and made more manageable when informed by such principles.

To bring greater depth and perspective to these subjects, in addition to chapters on all phases of production, the book also features interviews with industry professionals. These experts make it clear that while gaining mastery of the physical aspects of the production process is essential for making successful television programs, such mastery alone is not enough; rather, it is also critical to understand the underlying relevant principles of human nature for producing quality programs that people will want to watch. In short, to be a successful producer-director, you must know how to use the physical tools of the trade, *and* you must know your audience. *The Art of Video Production* explores these principles in greater depth than other production books.

This book follows the philosophy that if you give a person a fish, you feed that person for a day, but if you *teach* a person to fish, you feed that person for a lifetime. Put more simply, a guiding principle of this book is that *there is nothing quite as practical as a good theory*, and in today's rapidly changing world, understanding is the best tool for adapting to change.

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