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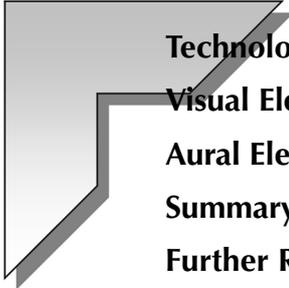
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CHAPTER 9

A History of Television Style

Gary A. Copeland



- Technological Manifest Destiny**
- Visual Elements of Television Style**
- Aural Elements of Television Style**
- Summary**
- Further Readings**

Radio comedian Fred Allen once observed, “Imitation is the sincerest form of television.” Allen never made the successful transition to television, so his remark may have been seen as sour grapes. But, as with many jokes, the humor in the statement comes from its ring of truth. Television has borrowed its visual and aural style from other entertainment forms. Where necessary, it co-opted and transformed these other media to produce the look and sound of the television we see.

Television did not develop a style in isolation from other entertainment traditions. Just as television networks borrowed many of their early programs from parent radio networks, TV also borrowed its style from such diverse entertainment forms as movies, theater, and vaudeville (Figure 3.16). Each of these contributed in some fashion to television style, but motion pictures and radio—the media most closely associated with television—provided its strongest influences.

The lifting of stylistic elements from the various forms of entertainment was often a matter of technological, economic, or aesthetic requirements. Each of these areas was important in the selection of elements from the precursors of television, and each has continued to influence the evolution of television style.

It is difficult to talk about one element—technology, economics, or aesthetics—without also discussing the other two. For example, original 60- and 90-minute live dramas were weekly staples of television in the 1950s. Such TV plays as *Requiem for a Heavyweight*, *Twelve Angry Men*, and

Days of Wine and Roses, which were later made into movies, were first telecast live (Figure 3.15). They were broadcast in this format for reasons that were technological (videotape was not in use at the time), economic (to film the plays would have been prohibitively expensive), and aesthetic (many of the actors and crew members came from Broadway productions, and brought to television some methods and goals of the New York theater).

This chapter explores how style has changed in television, and discusses the influence of these three key elements on style, mainly in narrative television. Non-narrative televisual forms have their own important stylistic histories, but they are so varied and wide-ranging that they extend beyond the scope of this chapter. Elements of non-narrative television style enter the discussion, however, when they pertain to the stylistics of narrative television under examination.

Technological Manifest Destiny

When we think of changes in television style, the first that come to mind are usually technological: color, stereo sound, computer-generated imagery (CGI), digital and high-definition television (HDTV). According to such a view, technology drives change. There is a sense of a manifest destiny within technological developments—a technological determinism. New breakthroughs, it is presumed, will instantly be adopted by the industry and accepted by the public—just as it supposedly was Europeans' destiny to conquer the western region of the United States.

This view of technology is, at best, only occasionally correct. For a technology to become accepted it must find an acceptance among consumers/audiences and producers/directors. In fact, technological changes occur only within economic constraints and according to aesthetic convention, which translates into consumer acceptance.

You may have experienced the fallacy of the technological determinism argument yourself. If you are the owner of a Divx player, you have experienced how new technologies may not survive. Assuming that you are one of the lucky ones who didn't purchase a Divx player from a Circuit City or a Good Guys store, let us explain. Divx was designed as a rentable DVD system and was aggressively marketed during the 1990s. The Divx player was about \$200 more than the cost of a low-end DVD player. The Divx player plugged into the owner's telephone line so that information about playing the Divx software and subsequent billing could be made to the owner's credit card. (The Divx name may be confusing because these Divx disc players are not related to the DivX video compression format—also known as MPEG-4.)

The owner of a Divx player could purchase movies or other programming on a Divx disc for about \$4.50. However, the disc was viewable for only 48 hours from the time that it was originally played. (It could be watched as many times as one wanted in that 48 hours.) Once that 48 hours was

up it was necessary to pay again for any additional viewing. These additional views cost about \$3.50 for another 48 hours or, for a much larger fee, one could purchase unlimited viewing.

The system was sold based on certain advantages — primarily over the rental of videotapes or DVDs from video stores. The *audio and video qualities* of Divx were superior to videotape, though it was not better than DVD as Divx used the DVD format for its discs. It provided *freedom* from late fees and returning tapes or DVDs to the video store as one purchased the Divx medium. It also claimed *flexibility* of when to view the purchased Divx medium. The 48 hour viewing period began when the viewer first pushed the play button. Actually, the flexibility advantage is just a re-dressing of the freedom advantage since it has to do with problems of rental periods. *Availability* of new releases was one of the suggested advantages. Stores would stock the number of Divx copies that the store believed could be sold versus a video rental store with a set number of copies available. *Convenience* was promoted through the ability to build a home library of Divx and only pay about \$3.25 to watch the programming again.

If you have one of these devices, you know that the system ceased operation in 1999. Training materials suggested sales people answer skeptical customers' questions about the viability of the system with an answer of "it's almost impossible to believe that Divx could go under. Divx is supported by major studios like Disney, Universal, Fox, Dream Works, Paramount and MGM." But the purported reason for Divx's demise — according to the company that created the system, Digital Video Express, LP — was that the company was unable to get sufficient commitments from the movie studios for content and other manufacturers declined to produce the Divx hardware. The economic model for such a format was not right even though the technology was available and its aesthetic qualities were superior (to videotape).

There are many such technological innovations that are introduced but are not viable. Sometimes, nonviable technology will reappear when it is repositioned in the market or a new, desirable use can be found. In other words, when the technology can be shown to be economically viable in a new configuration and at a new time it may resurrect itself. We may well be witnessing the resurrection of the Divx business model in new approaches to downloading video over the Internet, but, as this book is going to press, no one is quite sure how money will be made off these new services. Another clearer example of technological innovation that was ahead of its time is quadraphonic sound.

Quadraphonic sound was introduced in the early 1970s. Rather than the two speakers of stereo this system — as the name implies — had four speakers. In addition to front left and right speakers, the quadraphonic audio system also included left and right rear speakers. Quadraphonic records were produced though not in the numbers that stereo records were. One of quadraphonic's problems was that there were five competing incompatible systems — CBS's SQ, Sansui's QS, UHJ's Ambisonic, Electro-

Voice's EV Stereo-4, and CD4's Quadradisc. Consumers were concerned that if they purchased the wrong system, they might get stuck with a very expensive stereo with a couple of extra speakers. Another problem was that unless one wanted to hear the Black Watch play bagpipes and sound as if they were marching about in your room it wasn't seen as a very practical system. Most people expected musical performances to take place in front of them rather sitting in the center of the music. Was there really an advantage to be seemingly sitting in the middle of the Atlanta Tuba Quartet as they played John Philip Sousa's "Stars and Stripes Forever" (Golden Crest Records CRS-4173)?

Quadraphonic systems lasted for a few years before record companies stopped making quad records. The systems were dropped—but the concept was not forgotten.

Home theatres now use the old quadraphonic idea but call it Surround Sound (also known by trademarked names such as Dolby Pro Logic and DTS—Digital Theatre Systems). The growth of Surround Sound was encouraged by the introduction of the DVD (1997) and the marketing of the "Home Theater" concept. This time the technology, aesthetics and economics were aligned. Technologically, the DVD facilitates additional, high-quality sound channels because it easily accommodates more electronic information than a VHS videotape does. And Surround Sound systems didn't suffer from the incompatibility problem. The Surround Sound signal, unlike its quadraphonic progenitor, is encoded so that it is compatible with systems that are only two-channel stereo or—dare we mention it—one-channel monaural. There was also aesthetic justification for Surround Sound from motion pictures with soundtracks that emanated from speakers on the sides and in the rear of movie theaters. Cinephiles wanted TV equipment that would allow them to experience the movie just as one would in a theater—sound from the sides or the rear—in their home. Economics also stepped in to make the system viable. As the cost of the equipment was continually reduced, a greater number of people purchased Surround Sound systems. The amount of programming available for Surround Sound, and the number of releases and broadcasts that contain Surround Sound information also continues to increase. Today, Surround Sound is included on virtually every movie released on DVD and numerous television programs—especially sports programs—provide it.

These examples illustrate that technological determinism, or a manifest destiny driven only by technological improvements, grossly oversimplifies the process of change in the media. In addition to knowledge and the ability to build a device, there must be a supportive economic climate, an aesthetic motivation, and consumer interest for such technologies to be meaningful.

The two most obvious components of television are its sights and its sounds. Each has its own stylistic elements, which have evolved at varying rates since television became a viable narrative medium in the mid-1940s. To discuss how style has changed, this chapter is divided into elements of visual style and aural style.

Visual Elements of Television Style

The Birth of Video

The development of an all-electronic television system replaced earlier attempts, which used a combination of mechanical and electronic technologies. A German named Paul Nipkow devised the earliest patented device in 1884 as part of his research for a graduate degree that he never received. His television system used a rotating disk with square holes arranged in a spiral between the outside of the wheel and the hub. A motor turned the wheel and the spinning wheel broke the picture into bits (a process called **scanning**). Light coming through the hole hit a light-sensitive cell, which converted light into electricity. The television set receiving this signal had a similar wheel, which turned in sync with the camera. Nipkow himself never made his device work, but later inventors — most notably Scotsman John Logie Baird — were able to develop this electro-mechanical system.

Boris Rosing was the first to develop an all-electronic system using the cathode ray tube (CRT). Rosing, a Russian scientist, successfully transmitted an all-electronic picture by 1911. It was a relative of Rosing's CRT system that eventually developed into the electronic television system. The two inventors most responsible for television technology as we know it are Vladimir Zworykin, a Russian émigré and a student of Rosing's, and Philo Farnsworth, a Utah-born American inventor. Both Zworykin and Farnsworth invented a workable all-electronic television pickup tube — the piece of technology that actually changes light into an electronic video image.

Farnsworth's conceptual design for his "image dissector" was done while still a farm boy. He presented his idea for television to his high school class. It was fortunate for him that he made this presentation as his old school teacher was able to produce notes taken from it to later prove, for patent purposes, that the idea was Farnsworth's before Zworykin's.

The Influence of Radio on Television

The development of television was undertaken primarily by private industry rather than government. Electronics firms that had profited from the development of radio saw television as another potentially large profit center. One key player in the economic development of television was the Radio Corporation of America (RCA), owner of the NBC radio network led by David Sarnoff.

The corporate strategy for television was the same as the one that had worked so successfully for the development of commercial radio. Radio-set manufacturers became the pioneer radio broadcasters as a means of creating a market for their products. RCA's strategy was to begin broadcasting television signals so there would be a demand for the television sets rolling off the company's assembly lines. It and NBC's experimental

broadcasts of a wooden Felix the Cat doll (Figure 11.1) on W2XBS in 1928 were thus the inauspicious beginnings of U.S. television programming. The inexpressive doll slowly rotated on a turntable under bright, hot lights — unaware it was the forerunner of a major media industry.

The end of the 1920s found the new medium of television promoted by NBC, CBS, and a California based, West Coast regional radio network, the Don Lee Broadcasting System. The influence of existing radio-set manufacturers, their broadcasting divisions, and existing radio networks in the creation of television had far-reaching impact on the organization, and ultimately the style, of television. From an economic perspective, it was assumed that television, like radio, would be a commercial venture licensed by government but controlled by private enterprise. The configuration of a national broadcasting system designed around commercial networks and their affiliates was hardly questioned, because television was assumed by broadcasters and government to follow radio's pattern of networks and affiliated stations.

The creative processes, and thus the aesthetics, of television were also heavily influenced by radio. Much of the creative talent for television programming, for instance, came from the networks' radio divisions. This crossover from radio to television ensured that programming on television would be very similar to radio — though with pictures.

In the Beginning: Video

Early experimental television programming such as the Felix "broadcast" was produced exclusively in live video — that is, for immediate transmission. Neither film nor videotape (which was not introduced until the latter half of the 1950s) was used in the programs of the experimental period. The need for bright light to achieve a clear picture, the bulkiness of the camera equipment, and the general vulnerability of the video apparatus required that programs be broadcast almost exclusively from a studio. Thus, the primitive technology and the economic reliance upon radio professionals and their specific aesthetic resulted in a visual style delimited by the television studio. In 1931 experimental television programming consisted of such in-studio shows as *Doris Sharp*, *The Television Crooner* and *Roger Kinney, Baritone*, along with *The Art of Bookbinding*. Two decades later *The George Burns and Gracie Allen Show* went so far as to highlight the fact that it was shot in a studio. For example, Burns — a star in radio and, earlier, in vaudeville — draws attention to a studio camera in an episode from 1951 when he walks over to light the cigarette of one of the camera operators (Figure 9.1). Television's reliance on live, studio-based programming mirrored how radio was produced.

The importance of programming live rather than recorded telecasts carried over from radio, whose programmers preferred live broadcasts to electrical transcriptions, or recordings on acetate disks. This preference for



FIGURE 9.1 A kinescope from *The George Burns and Gracie Allen Show* shows Burns breaking the invisible fourth wall and talking to the camera operator.

live over recorded radio programs would even require some programs to be done twice — once for the East Coast and hours later for the West Coast.

Part of the preference for live television programming was technological. The means for cheaply and efficiently recording television programs had not been developed. The **kinescope** process (16mm motion pictures created by filming the program off a television receiver) permitted television programs to be recorded on film, but the images were blurry and of generally lower quality (Figure 9.1, 9.2, and see also, 3.15, 3.17–3.18).

Part of the preference for live programming was economic. During the early development in the late 1940s and the beginning of the 1950s, the television audience sizes were small, and the size of the audience did not justify large expenditures for programming material. In the beginning the



FIGURE 9.2 Arthur Godfrey pitching for Lipton soup/tea.

major movie companies were generally leery of “free” television, and hoped to develop their own pay-television systems. They had no interest in providing what seemed to be a potentially major competitor with programming help.

The influence of live radio on television was generally pervasive, but is most strongly indicated by the early network use of **simulcasts** of such programs as *Arthur Godfrey's Talent Scouts* (1948–58) on CBS (Figure 9.2, Godfrey doing a commercial for Lipton soup), *The Voice of Firestone* (1949–63) on NBC, and DuMont's *The Original Amateur Hour* (1948–60). Simulcasts, which began on the networks in 1948 and continued until the mid-1950s, were regularly scheduled network radio shows simultaneously broadcast both on radio and television. As a result, people with television sets saw the radio program being produced.

Even television stations not connected by cable to the networks provided the aesthetic of live programming, because of the method by which they received program material. These outlying stations were sent 16mm kinescopes by the networks as a means of broadening the program's audience. The distribution of kinescopes to nonwired affiliates served as some protection against the television station changing affiliations when wired access was available. This use of kinescopes of live productions also provided a transition from the live network television presentations to pre-recorded (filmed) programming.

One of the earliest network television programs to use films made specifically for television was *Fireside Theatre* (1949–63). First airing in April 1949, the program began as a mixture of live and filmed episodes. By September 1949, however, the program used filmed stories exclusively. A dramatic anthology filmed mostly at the Hal Roach Studios in Southern California, the series featured a different story and usually a different cast each week. *Fireside Theatre* and William Boyd's *Hopalong Cassidy* (1949–51) led the field in bringing film to serial television. Other, smaller, independent producers started producing filmed series for television and were joined by the major Hollywood companies in 1953.

How was the move to film and away from live productions greeted? A 1952 *New York Times* article, titled “A Plea for Live Video,” argued:

The decision of television to put many of its programs on film has turned out to be the colossal boner of the year. On every account – technically and qualitatively – the films cannot compare with “live” shows and they are hurting video, not helping it.¹

Despite the popularity of the increasing number of filmed network shows, a prejudice against filmed television remained. Notwithstanding this aesthetic preference, the amount of live programming steadily decreased during the 1950s. First film and then videotape were used to record television programs. The television program that did the most to shake television free of the myth of live programming and fix the elements of a television genre to this day concerned a Cuban bandleader and his (supposedly, for the program was produced in black and white) redheaded wife.

I Love Lucy

Programs with a studio audience were always performed live on the networks until 1951. That year, however, a breakthrough show appeared. The show was to have a significance to television that no one at the time could have imagined. One of the most successful television programs—perhaps *the* most successful—in the world, its popularity over five decades is not the main reason for its pivotal status. *I Love Lucy* is important because it encapsulated what television would become.

I Love Lucy was the first network TV series shot on film before a studio audience. CBS had wanted the show to be produced live, but Lucille Ball and Desi Arnaz believed that it should be filmed, even though, to help their comic timing, the two actors wanted a studio audience as well. Ball and Arnaz were the producers as well as the stars of the show; they spent \$5,000 of their own money to film the pilot episode and subsequent shows. This \$5,000 was the additional cost of filming the show before a live audience, and neither the sponsor, Philip Morris, nor the network wanted to spend the extra money for film. Arnaz agreed that he and Ball would pick up the extra cost but in consideration for their expenditure they would own the program. This investment for a filmed version of the show netted Arnaz and Ball millions and ultimately resulted in the creation of Desilu Studios.

The advantages of filming a television series instead of broadcasting the show live were numerous. First and principally, film facilitated **syndication** of *I Love Lucy* to local stations after the network's license period for showing the programs had expired. Programs that were broadcast live were difficult to reuse later. Some live programs, such as the early episodes of "The Honeymooners" on *The Jackie Gleason Show* (1952–59, 1962–70), were recorded on kinescopes, but kinescopes have poor resolution compared to programs originally shot on film. The production on film of *I Love Lucy* meant that any subsequent broadcast of an episode could look as good as the initial network broadcast.

Several film cameras shot the program while the audience watched from bleachers. Figures 9.3–9.4 show Ball and Arnaz on the set, addressing the audience. Ball appears next to one of the large film cameras, on a dolly that took three men to operate, which may be contrasted with the television (not film) camera on a pedestal in Figure 9.1. Also, the living room and kitchen sets are visible behind Arnaz. The cast performed the show as they would a play, running the scenes in the order that they would appear for the home viewer. This was not the first use of multiple cameras to film an event, however. Multiple-film camera techniques had been developed about a half-decade earlier, when Jerry Fairbanks created a multiple-camera system to shoot films for NBC newscasts. The camera technique may not have been new, but using it to record a performance before a studio audience was. Hence, Desi Arnaz has been credited with developing the multiple-camera technique for shooting television programs in front of a live audience.

I Love Lucy introduced the visual style of multiple-camera sitcoms that survives today (see chapter 7 for a full description of multiple-camera



FIGURE 9.3 Lucille Ball during the *I Love Lucy* pre-filming warm-up. Notice the film camera operated by two people—one to run the camera and one to run the motorized camera base.



FIGURE 9.4 Desi Arnaz during the *I Love Lucy* pre-filming warm-up. The audience is in the stands in front and the living room and kitchen sets are behind him.

production). Lighting is broad and even, to cover all of the actors in a scene. Camera movement is kept to a minimum. Action has to be limited to a restricted number of sets because of the audience. All sets reside on the same stage and should be visible to the audience (though that isn't always so); in most cases, sitcoms recorded before a live audience have one main set, with no more than three additional sets per episode (see diagram in Figure 5.7).

In many sitcoms the living room or the kitchen serves as the main set. For example, *I Love Lucy*, *Friends* (1994–2004) and *Frasier* (1993–2004) used living rooms as their main sets (see Figures 9.4, 2.6, 5.5–5.6). Main sets can also be a garage, as in *Taxi* (1978–83); a hotel lobby, as in *Newhart* (1982–1990); or even a bar, as in *Cheers* (1982–93). Most of a sitcom's action, which may be quite diverse, takes place on the main set. In *Cheers*, for example, the barroom has served as the site for wedding ceremonies, radio broadcasts, and even Diane's rendition of Shakespeare.

Filming before an audience does introduce some limits on the production, but many comic actors feel that an audience is essential for the success of their performance. *I Love Lucy* is thus further significant for introducing a studio audience to narrative television series. Although studio audiences had commonly been used for radio comedy, in television they had been restricted primarily to variety and game shows. The radio precursors had been produced on a theater-style stage, with a proscenium arch framing the action. By contrast, *I Love Lucy* was shot on a cinema sound stage, with the audience seated in bleachers.

Independent and Major Studios

I Love Lucy was the product of one of the many independent Hollywood production companies established to produce television programs

in the absence of the major studios. Desilu was formed by Arnaz and Ball to produce *I Love Lucy* and other shows. Other contemporary independent producers included Bing Crosby Productions, Flying-A Productions (Roy Rogers's company), General Service Studios, Mark VII (Jack Webb's company), and Ziv, which specialized in syndicated programs. After its start with *I Love Lucy*, Desilu lasted about fifteen years as a production company and provided shows for all three commercial networks; at the time Paramount bought it, Desilu was turning out episodes of *Star Trek* (1966–69), *Mannix* (1967–75), and *Mission: Impossible* (1966–73) for network broadcast.

Independent producers could make an impact in television in the early 1950s because the major motion picture studios were trying to ignore or impede the progress of television. The motion picture industry feared television would keep people at home rather than buying tickets at motion picture theaters. The fear was well founded; television did affect the attendance at U.S. movie theaters, which declined steadily for years after reaching its all-time high in 1948.

The major motion picture companies continued to pretend television did not exist until Walt Disney Studios signed with ABC to produce *Disneyland* in 1954. Disney originally agreed to the deal as a means to promote the new theme park he had carved out of some orange groves in Southern California. The show proved to be immensely popular, and profitable for both ABC and Disney. Later, the television network and the movie producer signed an agreement to produce *The Mickey Mouse Club*. After Disney broke the ice, other motion picture production companies began to produce programming for the networks, and by 1957 the big Hollywood motion picture corporations were the largest suppliers of television programming in the United States.

The increasing participation of Hollywood meant a greater volume of production in California and a concomitant reduction in work in New York City. Approximately two-thirds of the network's programming was being shot on film in Hollywood by the late 1950s. The migration to the West Coast continued through the 1960s, and by the beginning of 1970, 90% of television's entertainment programming originated in Los Angeles.

A comparable geographical shift in television production would not occur again until the 1980s, when many independent TV producers began to move their operations to Canada. Stephen J. Cannell, who produced such shows as *21 Jump Street* (1987–90), *Stingray* (1986–87), and *The A Team* (1983–87) discovered that he could take advantage of reduced production costs, more elastic work regulations in Canada and the favorable exchange rate between the U.S. dollar and the Canadian dollar. Basing his productions in British Columbia, he found locations that could represent U.S. cities, and established a large production facility in Vancouver.

In the 1980s, such Hollywood majors as Disney and Universal also began to produce television shows in their own newly constructed facilities in Florida. They had moved from California because of cheaper pro-

duction, fewer state regulations of the television and movie industries, and as a means to use and publicize facilities that double as theme parks and tourist attractions.

Such migration from Hollywood, however, has not affected the style of production. Most shows look similar, no matter where they are shot. The look of television programs had been set in the early days of television, when independent producers filmed shows using the single-camera technique that is also used to make theatrical motion pictures.

Television and Single-Camera Technique

The introduction of the Hollywood film companies into the creation of network programming introduced the aesthetic standards and conventions of film production to television. The standard mode of production in Hollywood was to use a single film camera and utilize a master-scene technique of production: First, shoot the master long shot of the entire scene; next, shoot the medium shots (for example, two-shots); and finally, shoot the close-ups. Then let the editor put it all together. (See chapter 7 for more on the single-camera mode of production.)

It was not until programs were filmed without an audience that the look of sitcoms changed. The use of a single camera without an audience provided a new freedom to the look of a comedy. A show no longer had to be limited to three or four sets; and exteriors, though more expensive, were as easy to shoot as interiors. To see the difference between multiple-camera, live-audience programs and single-camera productions shot without an audience, contrast *Will and Grace* (1998–2006) and *How I Met Your Mother* (2005–) as examples of the former and *My Name is Earl* (2005–) and *The Office* (2005–) as examples of the latter.

Perhaps more important, the use of film opened up a range of genres to producers and audiences. Police dramas were difficult or impossible to produce without using the single-camera system, and such popular police shows as Desilu's *The Untouchables* (1959–63) or Jack Webb's *Dagnet* (1952–59, 1967–70) relied on Hollywood-style film techniques.

Film production had at least one advantage over live video or early videotape in that film could be edited in post-production. The immediate broadcast of live video offered no opportunity to correct either performance or technical flaws. A live production might have at most one or two complex shots, because such shots take relatively long to block and rehearse. Thus, live production necessitated a Spartan visual style.

Film provided creative directors a means to gain greater control of the images and the performance than did live video. A scene might be shot several times until the desired performance is captured on film. The editor would then select the best, the most interesting, or at least the most suitable work of the creative team for the finished program. Through the editing process, film also allowed for a more quickly paced program than was generally possible through a live production. In sum, filmed programs could be more effectively manipulated.

Introduction of Videotape

The first videotape recorder (VTR) available to television stations was introduced in 1956 by the Ampex corporation, which had established a reputation for manufacturing superior audio recording equipment. (The company name is an acronym of the initials of founder Alexander M. Poniatoff and the first two letters of the word *excellence*.) (Figure 9.5 shows an early working model with the engineering team that designed and built it—including a young Ray Dolby who would later create the Dolby noise reduction system.) Ampex started delivering VTR equipment to networks and stations in 1957. Larger and heavier than an upright piano, these machines made it possible to record programs and replay them immediately. Programs that once had to be broadcast live or from film could now be replayed at any time. The quality of the first videotaped images was not as sharp as current pictures, but they were much better than the competing film-based kinescope technology, and VTR image quality quickly improved to the point where viewers could not tell if the show was live or on tape. Videotape significantly changed the appearance of network television for people living in the western regions of North America. Before videotape, television shows broadcast live by the networks to the East were recorded on kinescopes for rebroadcast to the western time zones. Recording live programs from New York on videotape provided the West with images as good as those seen by a live audience. NBC's *Saturday Night Live* (1975-) provides a current example of what was being experienced for the first time in the late 1950s. While the program is live for viewers in the Eastern and Central time zones, audiences in Mountain and Pacific zones see a live-on-tape version. Live-on-tape also allows the network to make changes for the replay—such as the deletion of Paul Schaffer's 1980, Charles Rocket's 1981, and Norm McDonald's 1997 accidental use of profanity on *Saturday Night Live*. The expletives were heard in the East and Central time zones but not in Mountain and Pacific.



FIGURE 9.5 The AMPEX engineering team that built the first video tape recorder along with their creation. What can't be seen is a rack of electronics that would have accompanied the visible transport unit.



FIGURE 9.6 Garry Shandling in *The Larry Sanders Show*, on the talk-show set. Shot on video, it contrasts with . . .



FIGURE 9.7 . . . behind-the-scenes shots, such as this one of Shandling and Rip Torn, which was shot on film.

There is, however, a difference in appearance between filmed and videotaped images – although the introduction of HDTV threatens to erase that difference. To compare film and videotape, you might find a copy of the television program *Max Headroom* (1987) at a video store; it contains segments originally shot in both media. So did the HBO series *The Larry Sanders Show* (1992–98), for which the talk show sequences were produced on tape (Figure 9.6), while all the backstage stories were shot on film (Figure 9.7). A *Monty Python's Flying Circus* (1969–74) episode, “Live from the Grill-O-Mat Snack Bar Paignton,” also provides a good example of the visual difference between film and tape; because of union labor rules everything recorded outside the studio was shot on film, and everything in the studio was shot on tape. The end of the Society for Putting Things on Top of Other Things skit has Graham Chapman walk out of the door on the studio set shot in video and then is seen stepping outside the door on film. “Good Lord. I’m on film. How did that happen?” He then is seen returning into the building, cut to his walking across the interior set on video, and going out another door to be seen exiting on film. He notices that it is film again and returns to the meeting of Society for Putting Things on Top of Other Things meeting shot in video. He announces to the assembled members “Gentlemen, I have bad news. This room is surrounded by film.” Everyone runs to the windows, and then the doors, to peer outside. Each time they look the exterior is shot on film.

Television movies have been almost exclusively shot on film. One major exception is NBC’s *Special Bulletin* (1983). This Emmy-winning made-for-TV movie tells the story of nuclear terrorism using news reports, and the exclusive use of videotape provides the program with the look of a newscast (Figure 9.8).

The choice of film for television movies and other high-end productions is one convention that is currently changing. High-definition equipment and transmission produce an image that is the near equal of 35mm



FIGURE 9.8 The fictional movie, *Special Bulletin* was produced totally in video, as if it were a real newscast.

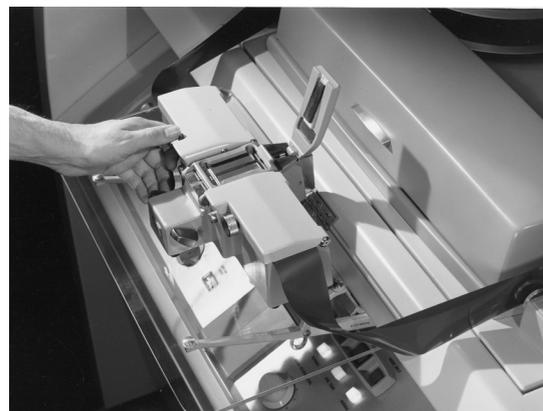


FIGURE 9.9 A manual VTR editor, designed to cut and then splice videotape.

film. Even major theatrical film producers such as George Lucas are making the transition to HD digital video. Shooting with video – in terms both of **production** and **post-production** – will become easier and cheaper as more of high-definition equipment comes into day-to-day use.

The introduction of videotape did not initially make video the equal to film in terms of artistic control. Many of the early videotaped programs were simply live shows recorded on tape, and post-production work (see chapter 7) on videotape was difficult, if not impossible, in the beginning. The earliest forms of videotape editing required that the tape be physically cut in the same manner as audiotape or film. The videotape was edited by cutting and gluing the pieces together, using a specially constructed videotape splicer, as seen in Figure 9.9. To prevent the television image from rolling at each splice, the cut and reassembly had to be made between frames, and to find those frames a chemical solution was applied to the bottom of the videotape, revealing the spikes that indicated frame changes. This method of editing was cumbersome, inaccurate, and time consuming. Added to these limitations, tape sometimes broke at the splices, damaging the expensive video record/playback heads of the VTR.

The medium took a leap forward when Ampex introduced the first electronic means of editing videotape: a system called **Editech**. The ability to edit electronically, rather than physically, made videotape a much more useful medium. Editing systems became increasingly sophisticated while simultaneously becoming easier to use. Editors could make more edits in less time; they had greater flexibility in pacing, and the capacity for complex organization of a program. For example, *Rowan and Martin's Laugh-In* (1968–73) – the first network series to make extensive use of electronic videotape editing – changed the pace of television thanks largely to the opportunities that evolving editing techniques offered. Its quick cuts, blackout sketches, and fast pace required electronic methods of editing, and the editors were awarded an Emmy for their stylistic innovation. For

example, the episode broadcast on 5 February 1968 began with the following sequence of shots:

1. Introductions of the cast (including Goldie Hawn, Figure 9.10).
2. Gary Owens parodying an old-style radio announcer while introducing the show (Figure 9.11).
3. African-American comedian, Flip Wilson, telling a very short joke: "I like colored people. In fact, a colored lady raised me" (Figure 9.12).
4. Gary Owens, continuing the introductions.
5. The hosts, Dan Rowan and Dick Martin (Figure 9.13), in long shot on the sound stage (no audience was used during the recording of the show).



FIGURE 9.10 A shot of cast member Goldie Hawn of *Rowan and Martin's Laugh-In* cuts to . . .



FIGURE 9.11 . . . Gary Owens, who played the announcer. Cuts to . . .



FIGURE 9.12 . . . guest star Flip Wilson with a joke. Cuts to . . .



FIGURE 9.13 . . . Dan Rowan (left) and Dick Martin, ready to start the opening dialogue.

Editing this quickly – particularly inserting the Wilson gag in between the shots of Owens – would have been prohibitively expensive and cumbersome before the Editech came along. It enabled *Laugh-In* producer George Schlatter to implement a basic rule: “Keep it short and keep it funny.”²

The fast-paced video editing introduced by the Editech can now be accomplished through **nonlinear editing (NLE)** on a computer. Figure 7.2 shows an example of an NLE system and Figures 7.3–5 illustrate the discussion of computer-based editing in chapter 7. Most television shows – regardless of whether they were shot on film or video – are now digitized for NLE, which is faster and cheaper than conventional, analog video editing on the Editech or film-as-film editing on a Steenbeck or Moviola (two brands of film-editing machines). Such developments blur the line between film and video. While the show you are watching may have been shot on film, it probably has been edited on computer to produce a videotape/video file as a final product and may never exist as a film that could be projected in a conventional movie theater.

This combination of technologies opens up a number of possibilities that film or video alone could not easily accomplish. Special effects (SFX) can be created and inserted much more simply and inexpensively into a digital rather than a film version of the program. The conversion to digital images for NLE also creates a version that can much more easily digitally manipulate an image. Moreover, digital **compositing** (the merging of two or more video, film and/or digital sources) has reduced the cost of special effects for television programs.

The conversion from analog images (created on video or film) to digital for editing and compositing also means that the computer may be used for image manipulation to create digital SFX. Digital technology is not limited to network or major productions. You probably have seen digital SFX on your local television station’s weather reports. The insertion of the reporter into a map of weather information in Figure 6.42 is accomplished with a computer.

Star Trek: The Next Generation (1987–1994), *Babylon 5* (1994–1998), the new version of *Battlestar Gallactica* (2003–) and more recent science fiction programs make extensive use of digital special effects. These developments have also influenced the look of non-science fiction narrative television. For example, the visual style of the crime reconstructions in *CSI: Crime Scene Investigation* (2000–) is only financially viable because of digital effects. In one such computer-generated shot, an extreme close-up of a book of matches appears to catch on fire (Figure 9.14). These special effects are produced more quickly, more cheaply, and more convincingly than if they were done using older, film-based processes, which results in more special effects per episode. This increased use of digital SFX has allowed television programs to mimic the visual style of more expensive motion pictures. And, to blur the line between film and video even more, expensive motion pictures such as Lucas’s *Star Wars Episode II: Attack of the Clones* (2002), which was originally shot on digital video and not film, have incorporated the creative possibilities of high-tech, computer-generated



FIGURE 9.14 Digital special effects: in *CSI*, computer-generated matches strike fire.

effects, which can be transferred from high-resolution video to motion picture film for theatrical exhibition.

Color Television

The date of the introduction of color television sets to U.S. homes is a little complicated. As will be explained, there were two introductions of color broadcasting in the U.S. The first, which was initiated by CBS, took place in 1951 but production of those sets ceased in the same year. The second introduction, from which today's color televisions trace their lineage, was in 1954. In that year, RCA introduced its home color television sets. RCA followed the pattern it had developed with radio by using its broadcasting arm, NBC, to create a market for RCA color receivers.

Color television took more than a decade to reach a significant number of households and to enrich RCA by sales of its color TV sets. Color came to predominate in 1966, when CBS converted from all-black-and-white to all-color broadcasting. Ironically, CBS had been both the last and the first of the commercial networks to transmit regularly scheduled programs in color. The irony stems from the way color television was developed.

CBS had proposed a hybrid electronic-mechanical color television system as early as 1946. The pickup tube of the camera and picture tube of the television were electronic, and black-and-white; but placed before each was a mechanical, spinning color wheel. The color wheel would spin so rapidly that through persistence of vision the eye would put the three separate colors together to form a properly colored image. In 1950, after a series of hearings and test demonstrations, the FCC approved the hybrid as the official U.S. color system.

The FCC approved the CBS system over the protests of RCA, which was scrambling to perfect an all-electronic version. The system RCA pro-

posed, but had not yet perfected, would provide color pictures, but would also be compatible with the existing black-and-white television sets. (The approved CBS system was not compatible with the existing sets.) This lack of compatibility upset all the current television set manufacturers, who, along with RCA, protested against the FCC decision. They vowed that they would not produce color television sets using the CBS hybrid system, but CBS promised that they would build the color sets themselves.

CBS began programming in color June 25, 1951. The total potential audience for its kickoff broadcast was small; the number of color sets capable of receiving the broadcast was estimated at fewer than 100. CBS began regularly scheduled network color broadcasts between 4:00 and 5:00 in the afternoon—the hour of the smallest television audience. Transmitting color programs receivable only by CBS color sets when the audience was smallest, network executives believed, would be least offensive to the overwhelming majority of viewers, who had black-and-white sets. CBS hoped that the hour would not hurt the network's audience figures for its prime-time schedule.

When the government issued an order to stop production of the color sets in November 1951, CBS ceased color broadcasting. The federal government ruled that color set manufacture used strategic materials necessary for the Korean War effort. (The order to conserve strategic materials, however, was not applied to manufacturers of black-and-white sets. This led some to suspect that CBS may have maneuvered the order so they could suspend broadcasting color programs and manufacturing color sets, which were losing the company millions of dollars.) After the CBS system had been accepted by the FCC, RCA and most of the other manufacturers of television sets formed the **National Television System Committee (NTSC)** to develop specifications for black-and-white-compatible color transmission and reception. The NTSC used RCA's all-electronic color system as its basis for development and standards.

The FCC accepted the NTSC color television system as the official standard on December 17, 1953. They authorized commencement of commercial broadcasting in color for January 1954. In the 1960s, ABC and NBC used this system to incorporate more and more color programming into their schedules—with NBC proudly trumpeting its use of it with an animated peacock at the start of color programs (Figure 9.15). CBS eventually followed suit. So, CBS had been the first network to broadcast regularly scheduled color programming—but eventually, the last of the networks to begin color broadcasting. Since then, the NTSC standard has been used by all broadcasters in the United States, as well as Canada, Japan, and about 45 other countries. It is only now being challenged by the switch to digital TV.

Color and Style

The initial introduction of color did little to affect the overall style of broadcasting. Early color programs were specials rather than series or

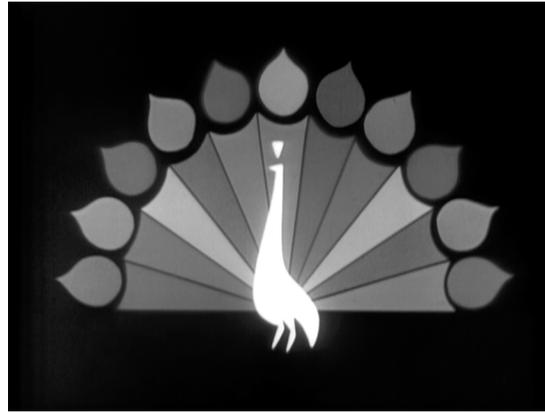


FIGURE 9.15 The NBC peacock, which introduced programs in “Living Color.”

serial television, but these specials did not necessarily exploit the abilities of color television by presenting particularly colorful events. One of the early color broadcasts in 1954 was that year’s World Series. The World Series coverage was exceptional because it was the first time color television cameras were taken outdoors for a network broadcast. Early color video cameras were very large and cumbersome, weighing around 400 pounds, and their color registration (alignment of the camera’s pick-up tubes) was easily knocked out of alignment. Their size was due to almost three times the number of parts as the black-and-white cameras of the time. While black-and-white cameras had been shrinking in size, color cameras returned television to earlier days of enormous, unwieldy technology.

The standard black-and-white camera of the 1950s had four lenses of different focal lengths mounted on a rotating turret (see the discussion of focal length in chapter 6). The introduction of the color camera resulted in the elimination of lens turrets and the subsequent adoption of the zoom lens as the standard. Before the zoom lens, the camera operator selected the proper lens for a given scene, but since each lens was of a fixed focal length, physical movement of the camera was often necessary to achieve the proper framing.

Zoom lenses replaced turrets on color cameras because each lens on the turret had slightly different color properties. With turret lenses, it would have been necessary to readjust the camera after each lens change; a zoom lens required only a single adjustment. The introduction of the color camera thus changed the visual style of television by substituting the zoom lens for a series of fixed focal-length lenses. And focal length has a major impact on the visual style of a shot.

In narrative television, black and white is virtually no longer an option. According to industry wisdom, viewers will not watch programs presented entirely in black and white. During the initial planning of *Hill Street Blues* (1981–87), it was suggested to the network that the show be shot in



FIGURE 9.16 Bruce Willis in the black-and-white episode, “The Dream Sequence Always Rings Twice,” of the series *Moonlighting*.

black-and-white with hand-held cameras as a means to emphasize its documentary, gritty quality. This notion was quickly axed by NBC, who felt that the audience wouldn't watch a black-and-white television show. However, black-and-white currently finds frequent use in commercials and music videos and in segments of narrative programs. Its difference from the norm of color is used for various narrative or expressive effects, as in “The Dream Sequence Always Rings Twice,” an episode of *Moonlighting* (1985–89) that parodied the shadowy style (Figure 9.16) of films noir such as *The Postman Always Rings Twice* (and was even introduced by director Orson Welles). Black-and-white images are thought to cut through the continuous clutter of color images that makes up so much of the current television fare.

Logo-mania

Network or station logos that appear in the corners of the screen are near ubiquitous in television. These logos are known as **bugs** within the U.S. television industry (the British call them a **digital onscreen graphic** or more commonly DOG).

They were introduced in the early 1980s as a means of combating the confusion caused by the proliferation of channels provided by cable systems. Because of the growing number of programming choices, it was discovered that many people were unaware to which network they were tuned. This could have a significant impact in the days when the diary method was used for television ratings in many markets. The diary method requires that the person write in the diary what program and what channel is being viewed. Cable networks such as USA were worried that people would not know or remember which programming service was being watched.

While bugs caused some outcry from viewers, the strongest complaints came from the subscribers to the premium movie channels such as Showtime and HBO. Thinking that one movie channel looks like another when a movie is showing, the premiums began using bugs to reinforce their name recognition with viewers. Needless to say, people who subscribed to movie channels did not like their movies being marred by these corporate reminders. Most premium channels no longer use bugs during their theatrically released motion pictures but commercial networks, whether over-the-air or cable, continue to use their bugs to remind people what they are viewing.

Networks generally justify the use of these bugs in terms of network recognition both for knowing to which station a person is tuned and for being able to find the channel while a viewer channel surfs. Bugs also help fend off video piracy. These electronic watermarks clearly identify the original source of stolen material and make it difficult for illegal duplicators to pretend that the tape was properly acquired. This is particularly true of the broadcast of sports events—the images of which are jealously guarded by their copyright and trademark holders.

The introduction of plasma flat screen television has renewed the controversy about bugs. New plasma television sets are particularly susceptible to “burn-in” for the first 200 or so hours of use. When an image is displayed in one place on a screen for a long time, a ghost of that image remains even when the signal does not contain the image. This effect is sometimes visible, for example, in airports where video screens display similar information for long periods of time. Some recommend that one shouldn't leave a paused DVD or DVR image on a new plasma screen for more than five minutes as longer may cause permanent burn-in of the image.

While stationary bugs aren't good for new plasma television screens, the viewer can generally ignore them. Thus networks needed to find a means to avoid the burn-in and attract viewer attention. The answer to both problems was movement. Movement catches both the eye's and the brain's attention. The first method to use movement to attract attention and provide information across the bottom of the screen—such as sports scores, weather updates or promotional announcements—is the **ticker**. Tickers are particularly common on such cable networks as ESPN, CNN, and The Weather Channel. The all-time winner for the most graphic information on the television screen at one time is probably Bloomberg Television (Figure 9.17). This financial news cable channel uses at least half of its screen for ticker information.

While a static bug will generally come to be ignored, the moving ticker information continues to draw viewers' attention. This is due to the human eye's photoreceptors. The eye contains both rods and cones. The rods are motion sensitive. When the brain detects motion it will reorient attention to the movement. This is a survival trick that was probably particularly useful when humans were hunting and being hunted. Networks now supplement their static bugs with animated bugs and program promotions. USA created a series of on-screen promos where the main characters from the promoted



FIGURE 9.17 Logomania rules Bloomberg TV where the image of the announcer fills less of the screen than print information does.

show walk onto and off the lower left of the screen as another program plays. The moving bugs and promos are becoming increasingly intrusive into the viewer's attention toward the viewed program.

In the early 2000s some networks such as E! experimented with an audio portion to the bug. Not only would there be action on the screen but a tone or musical note would play. The injection of this new audio stimulus may have been too much as the practice of using audio cues lasted only for a short period of time on E! However, sports channels such as ESPN still use an audio cue to signal the display of scores.

The increasing use of these text and symbols on-screen creates a competitive environment for the programming. You may have seen the *Saturday Night Live* "Newsforce" skit where the newscasters find themselves unable to continue because the screen has become filled with bugs and tickers. While it is an exaggeration, the humor of the skit comes from our understanding that the problem of non-program on-screen information continues to increase.

Remote Control

The history of the remote control for the electronic mass media appears to start with the Kolster Radio Corporation who developed a wired remote control for their radios in the late 1920s. The majority of these early radio remote controls had wires that ran from the shoe box-sized remote control to the radio. The remote push of a button would engage an electric motor inside the radio that would turn the tuner to specific stops. The system wasn't very reliable, the wire was a nuisance, and the remote was big and bulky. Radio remote controls were not very popular.

Remote control devices (RCD) for television began in the 1950s. Some of the earliest had names such as Tune-O-Magic and Remot-O-Matic. The

company that pioneered in the research and marketing of TV RCDs was the Zenith Corporation.

Zenith developed a number of remote controls for television using various technologies. The Zenith Lazy Bones was the first wired remote produced by the company in 1950. The wire running across the floor turned out to be both unsightly and a potential hazard.

Zenith introduced their Flash-Matic remote control in 1955. The brain-child of Zenith engineer Eugene Polley. It was the first of the wireless remote controls and used four photocells in the corners of the television set. One aimed the remote (more or less a flashlight) at one corner to turn the set on or off, another to change channels in ascending order, another for descending, and finally a fourth corner to mute the audio. One problem with this system was that sunshine falling inopportunistically on the set could turn the set off or on, mute the sound or send the channels rotating.

The first alternative that Zenith investigated to replace the Flash-Matic was radio waves. This system worked but the problem was that if you had a nearby neighbor with a similar remote control you could suddenly find your television being hijacked by the neighbor's remote. This system was abandoned without ever being marketed.

Zenith engineer Robert Adler led the team that developed the breakthrough remote. He created the Space Command remote control (so called as a salute to Zenith head and the man demanding the development of a TV remote control, Commander Eugene F. McDonald). This remote operated using ultrasonic sounds created by pressing one of its four buttons. When the button was depressed a hammer would strike one of four short aluminum rods producing a sound too high for the human ear. Each rod produced a different frequency – one for each of the four functions identical to those on the outmoded Flash-Matic. A receiver in the television set would detect which tones had been produced and carry out the appropriate function. The Space Commander met all the requirements of Commander McDonald for a remote: it was wireless, hand-held and required no power source. The ultrasonic Space Commander technology was the industry standard in wireless remote controls until the introduction of **infrared (IR)** remotes in the 1980s.

The first infrared remote control device – today's standard remote – was developed by General Electric. The infrared light is supplied by three light-emitting diodes (LEDs) that blink off and on to transmit a particular, binary-coded decimal. A receiving unit in the television, VCR, or other device receives the coded message and, if it is one that is recognized, will carry out the preprogrammed instruction.

The IR remote is very common in today's households. It has been estimated that 99% of all television sets and 100% of DVDs currently sold come with an IR remote. In fact, many devices now eliminate almost all buttons on the device itself in favor of a remote control. The penetration rate for IR remotes is beyond 90% of all households in the United States.

The remote control has contributed new concepts with which television programmers must deal. The new broadcaster or cablecaster "problems" or viewer "opportunities" of **zapping** (using the remote to tune to

another station to avoid commercials—called zipping when the remote is used to speed past commercials on recorded programs) and **grazing** (the switching between programs) face programming executives. This severely affects the audience **flow**—the movement of the audience from one program to another—that used to be a given in the television industry. Without an RCD, a person had to get out of the chair and change the channel or at least give instructions to one of the children to make the change. It was assumed that viewer inertia would deliver a good proportion of the audience from one program on a given network to the next. The RCD device changed that.

One result has been a change in how television programs begin and end. A decade ago programs began with a “teaser” segment to hook the audience, a theme song with the first set of opening credits and then a commercial break. Programs would end with the close of narrative, a commercial break, and then the program’s theme song played under the end credits. At the conclusion of network programming, networks scheduled time for local stations to broadcast their local commercials. Usually these times were at 28 and 58 minutes after the hour. This meant that from the end of one program’s narrative segments to the beginning of the next program’s first narrative segment three or four minutes could pass. In pre-remote control days, this was not considered a problem. The diffusion of the RCD into virtually all households has made it one. Consequently, current network programs are now scheduled to directly abut one another. Immediately after the end of one program’s credits another program starts.

Producers of programs may squeeze credits into boxes at the end of the program while post-dénouement dialogue or visual bits are seen on screen. For example, *Frasier* (1993–2004) episodes end with a silent segment with a visual gag timed to the very end of the credit roll at the bottom of the screen (Figure 9.18). When the gag and credits end, they are imme-



FIGURE 9.18 Kelsey Grammer, during end credits of *Frasier*, performs a final non-verbal gag.

diately followed by the next program's beginning of the narrative (its hook to pull viewers in).

Theme songs have also been shortened or removed to contend with hyperactive channel changing. In the early 1990s, the head of ABC programming ruled that none of the shows on ABC would have theme songs because theme songs with credits provided time for viewers to switch to see what was showing on other channels. This particular edict didn't last very long, but, it did cause many programs on ABC and elsewhere to shorten the traditional opening credits and/or extend the end of the program.

The latest innovation is to remove the traditional opening theme and credits entirely. Compare the opening of *Law & Order* (pick any *Law & Order* series) with its opening music, scenes of New York City, and shots of the principle actors with the opening of *Close to Home* (2005–) on CBS or *The Closer* (2005–) on TNT – neither of which has a traditional opening credit sequence. The credits for the stars of the show appear during the actual narrative of the program as guest star names had previously appeared.

Some programs that need more back-story so that new viewers will understand the concept such as *Ghost Whisperer* (2005–) or *Protocol* (2005–06) still have long opening sequences to explain the back story to the viewers. This need to understand something of the back-story is why Sherwood Schultz wrote the *Gilligan's Island* (1964–67) theme. CBS network executives were concerned that new viewers wouldn't understand how the castaways got into their predicament.

The recent changes of placing the end of one show directly abutting the beginning of the next and the reduction or removal of opening credits with theme music are directly attributable to the ease of changing channels afforded by the remote control. In this instance, a piece of technology has had a major impact on television aesthetics.

Aural Elements of Television Style

Dialogue

Most of the early writing and performing talent in television came from radio rather than motion pictures. Television performers and, particularly, writers who came from radio tended to emphasize the aural rather than the visual. As a consequence, radio conventions strongly affected the way television sounds.

Most television genres rely heavily on dialogue to drive the narrative. Sitcoms, dramas, and soap operas are usually very dialogue dependent. Action/adventure shows tend to be less dialogue centered, because, as the name suggests, the show's pleasures derive from action that must be seen. Compare, for example, the use of dialogue in *The Young and the Restless* (1973–) to that in *CSI* where there are sequences where nothing is said and we view the investigators doing science.

This reliance on the soundtrack has been especially exemplified in cartoons made specifically for television. Hanna-Barbera, the pioneer in made-for-television cartoons, was able to create and market-affordable cartoons for television by reducing the quantity of animation (the number of pictures used to create the animated image), along with some innovations in animation techniques that reduced some of their labor requirements. The reduction in the amount of animation—known as limited animation—corresponded with an increased investment in the soundtrack to carry the story line (see chapter 11).

Reliance on audio allows people to do other things while they “watch” television. Research has shown that many people are engaged in a simultaneous activity while they experience television. For instance, viewers may eat dinner, read the paper, do homework, or fold laundry while they “watch” television.

Music

Television’s use of music has changed over the years (see chapter 10). Early live programs with small budgets were often forced to use organ music (also performed live, of course) as their sole form of incidental, or nondiegetic, music. This device was adopted directly from radio programming. Producers of early, filmed shows could purchase the rights to generic, production music libraries for use as incidental music. When the major film studios entered into television production, however, they had their own music libraries, as well as composers who could write original scores for a series.

Soap operas are an excellent example of the changes in incidental music in television. When soaps began on television in the 1950s, organ music was used exclusively for incidental music, as it had been in radio soap opera. This association between organ music and daytime dramas became so ingrained that organ music continues to be a cliché associated with soap operas, even though no soap has used a solo organ in decades. Electronic pianos and organs and audio synthesizers, which provide a diverse range of musical sounds and styles, replaced the standard organ as the source of music for soaps. Moreover, the music is no longer performed live while the program is shot, but added to the soundtrack using recorded selections.

Today, soap operas and other network series have also licensed the rights to copyrighted popular music for occasional use in their episodes. Several soap opera episodes, for example, will accompany a visual montage of a young couple’s romance with a currently popular pop song. (And there have even been cases where a tune written as a soap opera theme has found its way onto the pop charts.)

In this way, soap opera music resembles the music of the style-setting police drama *Miami Vice*. Most of the incidental music that accompanied the adventures of Crockett and Tubbs was created on a synthesizer by the composer Jan Hammer, but the producers also budgeted enough money

for each show to include recognizable rock music by the original performers. The show licensed music from Glenn Frey, Phil Collins, Tina Turner, and others. They were to evoke, in former NBC executive Brandon Tartikoff's words, "MTV Cops."

While rock is an accepted and sometimes expected part of narrative television's sound track, this was not always the case. A classic example is *Dragnet*. Whenever "teen" themes were part of the narrative in the 1960s–1970s incarnation of Jack Webb's "realistic" police series, the "rock" bore a closer resemblance to Muzak than to Hendrix. For many adults of that time, rock music did not have favorable connotations. Since the majority of prime-time programming was aimed at adults or at the nuclear, middle-class family, rock music was relatively rare.

Perhaps ironically in this context, the first nonmusical television show to use rock music regularly was a family-oriented sitcom, *The Adventures of Ozzie and Harriet* (1953–66). Starting in 1957, Ozzie and Harriet's younger son Ricky (or, Rick, as he was later called) Nelson would perform a musical number at the end of each episode as seen in Figure 9.19. The presence of Ricky's music caused some controversy. Was rock and roll too decadent, too animalistic for a good clean family like the Nelsons? To dispel criticism about the music, in one episode Ricky asks his mother what she thinks of rock and roll. The real audience for Harriet's response is fairly clear; she tells us (Figure 9.20) that this music may be different from what she is used to (in real life, Harriet was once a singer in husband's Ozzie's and other bands), but there is nothing really wrong with it. She likes the energy of the music, she says.

Other family-oriented, domestic sitcoms of the period occasionally included a rock/pop tune within the diegesis. Shelley Fabares, who played daughter Mary on *The Donna Reed Show*, was ordered by the show's producer to cut the single "Johnny Angel." Fabares didn't want to record, because she felt she had no voice for singing. The producer suggested that



FIGURE 9.19 Ricky Nelson sings "decadent" rock and roll on *The Adventures of Ozzie and Harriet*.



FIGURE 9.20 Ricky's real life and TV mother Harriet Nelson explains to Ricky and the audience that there is nothing wrong with rock music; it's only different from what she knows.

if she liked her employment with the show she should record the song. The song was recorded and performed by Fabares on *The Donna Reed Show*, and the 1962 single “Johnny Angel” became a hit. At best, however, early television’s attitude toward rock was ambivalent.

While rock/pop music would occasionally invade family sitcoms, 1966 saw the introduction on NBC of a television show whose entire raison d’être was the marketing of pop music. *The Monkees* (1966–1968) was inspired by the success of the Beatles and other British Invasion pop groups and the Beatles’ film *A Hard Day’s Night* (1964). Each episode featured at least two musical numbers—most of which would go on to become marketing successes as singles or as parts of an album. The show was sufficiently “safe” that adults would tolerate their children watching the show even though it featured mildly risqué pop music.

Two years after *The Monkees* debut, ABC offered *That’s Life* (1968–69), which included original music and dance numbers similar to a Broadway show with, generally, Broadway (and not rock) sensibilities. Though pop/rock would also find its way into this show, the first episode did include pop group, the Turtles, playing in a “discotheque.” *That’s Life* was the first to be an original episodic musical program with the musical numbers integrated into the narrative. Musical series that followed all used roll-n-roll beats for their music; for example, *Fame* (1982–87), *Hull High* (1990), and *Cop Rock* (1990).

The decision to incorporate a more “modern” sound into television programs resulted not so much from the producers’ and networks’ discovery of rock, but from the reduction of the threat they felt the music posed. Rock forms that were once considered threatening, such as acid rock or heavy metal, can now frequently be heard in narrative programs—thanks to time and the baby boom generation being a major portion of the audience.

This has made it possible for current forms of “dangerous” modern music (for example, rap) to be accepted in narrative television but only when the narrative takes viewers into “dangerous subcultures” such as the inner city. Despite this limited play, the representation of this music is more authentic than Jack Webb’s attempt at rock in *Dragnet*.

The use of rock and roll music on TV sound tracks has become accepted over the years if not fully embraced. *Cold Case* (2003–) uses rock and roll as an integral part of its story telling. The show follows detectives attempting to close an unsolved case from the past. The viewer sees the past as described by the witnesses through flashback. These flashback sequences are accompanied by the rock/pop music of the time of the original crime. Rock music becomes an aural signifier for when in history the crime and the flashback takes place.

Laugh Tracks

Another device carried over from radio to television was the use of laughter on the soundtrack. Two forms of television laugh tracks have

evolved: (1) those labeled as coming from a studio audience, and (2) those incorporating recorded laughter, the show not having been recorded before a studio audience. Network executives say that canned laughter, as recorded laughter is sometimes called, is placed on a show's soundtrack to make us feel better about laughing at the program. One network executive claimed that people didn't like to laugh alone. Laugh tracks, according to this view, give us permission to laugh. The laugh track also serves as a signpost pointing to the jokes, which may be less than obvious. Moreover, laugh tracks serve to engage us in the television situation, enticing us to join the responding audience that we hear on the soundtrack, but never see (in narrative programs, although, obviously, they're quite evident in non-narrative shows such as *Late Night With David Letterman*).

During the 1950s and 1960s, one man added laugh tracks to all shows. He had a box containing tape loops of various kinds of laughter (titters, guffaws, etc.) with each type of laughter activated by a switch. He pushed what he considered the appropriate button on his box to elicit the correct demonstration of amusement for that part of the program. A particularly morbid commonplace in the business noted that the canned laughter heard on shows was the mirth of the dead. This was probably very true, because the laughs on the tape loops inside the box had been lifted from old, live radio shows.

Producers Gene Reynolds and Larry Gelbart tried to convince CBS to allow *M*A*S*H* (1972–83) to be run without a laugh track, but network executives became nervous at the thought of a sitcom without some type of laughter on the audio track. Tests were run to measure enjoyment of *M*A*S*H* with and without a laugh track, and there appeared to be no difference in terms of enjoyment between the laugh track audience and the non-laugh track audience. Despite these test findings, the network executives remained uncomfortable without a laugh track. Subsequently, the producers and network reached a compromise: no laugh track in operating room scenes, but all other scenes would have the off-screen chuckles and chortles. This distinction was not kept in the exported show, as *M*A*S*H* was shown in Great Britain without any laugh track.

More recently, it seems network executives are beginning to relax about sitcoms without laugh tracks. Fox's *Parker Lewis Can't Lose* (1990–92), ABC's *The Wonder Years* (1988–1993), and Fox's *Malcolm in the Middle* (2000–2006) are examples of comedies (and their audiences) that survived without laugh tracks. Not incidentally, all are, like *M*A*S*H*, single-camera productions.

Even shows with live studio audiences may **sweeten** the laughter. Programs performed before audiences are often taped twice in front of two different groups. The first time is usually called the dress rehearsal, and the second time the actual performance. Both performances are recorded, however, and the laughter from the dress rehearsal may be used to augment the laughter in the final production. Another way to augment the studio audience's laughter is to revert to the canned laugh track. The recorded track can be used to make the audience sound larger than it was,

or to fill in spots where the production team thinks there should be a laugh, even though the audience didn't.

Summary

The history of television style intertwines issues of technology, economics, and aesthetics. No single element explains sufficiently why television looks and sounds the way it does today. Though technology, primarily in video, continues to provide a number of evident opportunities for changes in style, technology alone is not sufficient to cause change. There must also be a perceived aesthetic need, and the change must not lose money for a network or a station.

Television drew from radio, motion pictures, and theater for its style. Radio was one of the biggest influences, because control of the television industry rested with those who controlled the radio industry.

Television began as a live medium, and live broadcasting was seen as more appropriate and, consequently, superior to the medium than recorded performance. Filmed programs gradually began to replace live ones, and then videotape was introduced, both to replace kinescopes for recording live programs for later playback and to serve as an original recording medium. The introduction and development of electronic videotape editing made videotape even more viable. Today that analog-style electronic editing has been replaced by computer-based nonlinear editing.

Some have argued that television is primarily an aural medium. Despite and in conjunction with the presence of pictures, television audio plays an important role in building both narrative and mood. Musical styles for background and incidental music have changed over the years; the use of laugh tracks has not, in any significant way. Networks seem to be comfortable with the conventional use of recorded laughter in comedies, although some recent television comedies—a small minority—have done without.

Further Readings

Historical development of the electronic media in general receive excellent treatments in most introductory broadcasting books. See Joseph R. Dominick, Barry L. Sherman, and Gary A. Copeland, *Broadcasting/Cable and Beyond: An Introduction to Modern Electronic Media*, 3rd ed. (New York: McGraw-Hill, 1996). These treatments are usually chapter-long highlights of how the technologies evolved and were implemented. Greater depth can be found in Christopher H. Sterling and John M. Kittross, *Stay Tuned: A Concise History of American Broadcasting*. (Mahwah, NJ: Lawrence Erlbaum Associates, 2002.)

For insights as well as interesting stories from the period that many of television's finest dramas were being broadcast live from New York, there is Frank Sturcken, *Live Television: The Golden Age of 1946-1958 in New York* (Jefferson, NC: McFarland, 1990).

Those more interested in the technical development of electronic broadcasting might want to read Thomas S. W. Lewis, *Empire of the Air: The Men Who Made Radio* (New York: Edward Burlingame, 1991). This was designed as a companion for the PBS series of the same name but holds up well by itself. See also Joseph H. Udelson, *The Great Television Race: A History of the American Television Industry 1925-1941* (Tuscaloosa: University of Alabama Press, 1982).

Notes

1. Jack Gould, "A Plea for Live Video" *New York Times*, December 7, 1952, sec. 2, 17.
2. As Schlatter explains in a booklet included with the DVD, *The Best of Rowan & Martin's Laugh-In*.