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Contents

FOUR WAYS TO DRAMA

Introduction

WALTER K. KINGSON

WALTER K. KINGSON, Head of the Radio Division of the Theater Arts Department at the University of California, Los Angeles, was program chairman of the AETA-UCLA conference on television at which the demonstration here recorded was given. He is one of the editors of the *Hollywood Quarterly*.

Theater arts at U.C.L.A. mean theater first of all, then motion pictures, and radio. The two new arts have sprung from the other. They use its basic skills—words to create character, emotion, and idea, the voice to convey them to the audience.

THIS quotation from the description of courses at the University of California, Los Angeles, summarizes the view that motion pictures and radio are two extensions of the stage. A third extension has now appeared with the development of television.

To examine the qualities and potentialities of this latest addition to the theater arts family, the U.C.L.A. Theater Arts Department, in coöperation with the American Educational Theater Association and the University's extension division, conducted a Television Institute in the spring of 1949. Many phases of television were discussed: "Television and the Theater Arts Curriculum," "Facts and Figures of the TV Medium," "What Can Television Do for Education?" "Production Requirements of TV." The high point of the program was a demonstration in which a short dramatic episode was presented in three versions: for stage, radio, and television, respectively. Later a motion picture version was added, thus providing four treatments of a dramatic sequence, all using the same plot and characters, but illustrating the requirements of each medium for contrast and comparison.

The scripts for the demonstration were prepared by Phil Essman, Coördinator of Radio for the Los Angeles County school

system, in partial completion of his work toward the Master of Science degree in theater arts. The stage version was directed by William W. Melnitz, Assistant Professor of Theater Arts. The radio version was directed by W. David Sievers, who teaches radio production in the Department of Theater Arts. The television version was produced by Richard J. Goggin, Senior Television Director of the Western Division of the American Broadcasting Company, and directed by ABC's William Vandiveer. Norman H. Dyhrenfurth, acting head of U.C.L.A.'s motion picture division, produced and directed the motion picture script written by Arthur Mintz, a graduate student, who also acted as assistant director.

In the ensuing pages each script is followed by remarks in which the director or producer points out some of the specific problems encountered in that production of the episode, and at the same time comments upon the special qualities of the medium with which he is concerned.

One of the most revealing aspects of the various performances was the manner in which they demonstrated that television is a blend of techniques and conventions of stage, radio, and motion pictures, and equally, that it is a medium of its own, different from the other three. This is evident in some degree from the scripts and discussions which follow. However, since the action that goes on "backstage" in preparing and producing each of the versions must be seen for fullest effect, the differences among the four versions are brought out more effectively in the film that was based on performances of the following scripts. This film, entitled "Four Ways to Drama," has been prepared by the Motion Picture Division of the Theater Arts Department and will soon be available for distribution.

The following scripts and critical remarks have relevance for teachers of stage, radio, and motion pictures who are interested in the relationship of television to the older forms of theater. They serve, too, to point up the importance of a background in stage, radio, and motion pictures for the most effective use of the new medium of television.

The Stage Script

PHIL ESSMAN

(At rise, we see Sam Johnson, the father, sprawled comfortably on the couch allowing his Sunday afternoon dinner to settle. He has a large and somewhat bulky volume propped open on his chest. Sam, Jr., a lad of seventeen, is moodily pacing the floor opposite the couch, obviously worried over a matter of some importance. The mother, Martha Johnson, has just finished the tiresome task of clearing the table.)

MOTHER (*As she settles in her chair*): Whew!

FATHER (*Turning over on couch*): Why they make these books so darn big, I never could make out. (*Having trouble with book.*)

MOTHER: I never could understand why you read those big cumbersome books. It wears me out just to watch you holding it.

SAM: All encyclopedias are big books, Mother. (*Pause while Sam continues pacing.*)

FATHER: Stop that infernal pacing and light somewhere, son.

MOTHER: It's that drugstore job makes him so nervous. I wish he wouldn't go on with it.

FATHER: It's good for him. It's good for a boy to work. You know, when I was his age, all the boys . . .

MOTHER (*Interrupting; she has heard this same story countless times*): He doesn't need the money!

FATHER: He needs pin money—and for ulterior purposes! (*With a wink at Mother.*)

MOTHER: But why does he have to work for that Mr. Craig? He keeps him so late in the evenings.

FATHER: Well, *he* chose the job. Whether Lillian Craig has anything to do with it or not, I don't know. (*Changes the subject.*) Did you know that they're using subways in New York, Martha?

MOTHER: Isn't that terribly dangerous, Sam?

FATHER: Not if they're installed as it says here, dear. Y'see, Sam (*to his son*), that's the sort of thing you should be interested in. That's the new spirit—progress!

SAM: Progress! That's anarchism, according to Mr. Craig. (*Looks out of window and does a double take.*) Mr. Craig! (*Sam crosses to the kitchen door and exits hurriedly.*)

FATHER: What *is* the matter with that boy? Martha, you're going to have to take a hand with him! (*The doorbell rings. Craig charges into the foyer.*)

CRAIG: The door was open, so I . . .

MOTHER: Oh, Mr. Craig! Come right in.

CRAIG: Thank you. (*Enters living room; turns to Father.*) Mr. Johnson (*the two words are a symphony of spite*), it seems that you have been spreading your lawless, anarchistic ideas!

FATHER (*Calmly*): Take your hat and coat off, Leland, before you make any accusations.

CRAIG (*Sputtering slightly, but removing his hat*): This is a serious situation, Mr. Johnson, and your attempts at levity are out of place.

MOTHER (*Losing patience*): You two are always going at each other! What's so serious this time?

CRAIG (*Turns to her*): Mrs. Johnson, your son is a thief!

FATHER (*Becoming very impatient*): If you've got anything to back up this wild talk, spit it out; if not, get back to your drugstore and your cash register!

CRAIG: It's my cash register which is the point at issue here, Mr. Johnson!

MOTHER: What do you mean?

CRAIG: Just this. (*Vindictively*) Last night, your son, Sam, who *was* my employee, locked up the store for the evening. This morning, on my way back from church, I stopped by the store, and seven dollars was missing from the till!

FATHER: Must have been an inspirin' sermon, to make you rush to the store and count the till money.

MOTHER: Why, Sam hasn't a dishonest bone in his body! He couldn't have stolen this money.

FATHER: Of course not, Martha. (*To Craig*) Haven't you any better evidence to offer?

CRAIG: I don't need any better evidence. The boy's a thief. I knew it all along. He's just like the rest of you. An anarchist, that's what he is!

FATHER (*Threateningly*): Clear out, Craig! (*He advances on Craig menacingly.*)

CRAIG (*Backs away quickly, jams his hat on his head, and turns at the door*). Anarchist! Anarchist! Anarchist! (*Exits.*)

FATHER (*Looks at Mother shrewdly; raises an eyebrow*): Lillian, eh? (*Mother nods in confirmation.*)

FATHER (*Obviously disturbed*): Call Sam, Martha.

MOTHER: All right. (*She crosses to the kitchen door. We hear her offstage voice.*) Sam, your father wants to speak to you in the living room.
(*Sam enters. He has, of course, heard everything through the wall or portiere and is apprehensive. A long pause . . .*)

FATHER: Well, son . . . this is a serious charge by old . . .

SAM (*Blurting it out*): I did it! I don't care! I did it!

FATHER: Hold on a minute, son. Martha, I think you better leave us alone. (*Mother goes out.*) Now look here, son, you're a bright kid, way above average; but there's one thing you don't know how to do—you're a real bad liar. Now why not tell me the truth about what happened? It'll come out sooner or later.

SAM: But, Dad, I can't; don't you see? I can't tell you without involving someone else, and you wouldn't want me to do that, would you?

FATHER: No, I don't suppose I would unless it was someone bad. It was Lillian, wasn't it?

SAM: She had to have the seven dollars, Pa. She's class treasurer and she lost the money somewhere and she knows her father will never give it to her and she didn't think he'd miss it.

FATHER: That old skinflint would miss two cents. What kind of coins was the class treasury in, son?

SAM: Mostly quarters and dimes.

FATHER: Hmmm! Do you suppose, son, if Lillian got that money back she'd have courage enough to face her father?

SAM: Sure she would, Pa. It's just that she got real scared when she found the money was gone. If she had the money for the treasury, she'd go to him and explain the whole thing.

FATHER: Why don't you find it for her?

SAM: Find it, Pa? Where?

FATHER: There's one sure place to find seven dollars in quarters and dimes, son. (*He goes to an ornamental jar on a desk.*) Your mother's pin-money jar.

SAM: But, Pa, she'll know I took it.

FATHER: I'm taking it, son, not you. (*Counts out money.*) Besides, you'd be surprised how many times I've been short and made it up from this jar without her ever missing it. Now, here; go over to Lillian and make a deal with her. And, son, don't ever try lying again; you just can't get away with it; that honest face of yours comes from your mother's side of the family, I guess.

Production Notes on the Stage Version

WILLIAM W. MELNITZ

BECAUSE the script on which the radio, television, and motion picture scripts were based was written to serve the immediate purposes of the demonstration, it is, in a sense, necessarily undistinguished as drama. By the same token, however, it necessarily fulfills certain minimum dramatic requirements. It centers on the Johnson family, struck by a domestic thunderstorm on an otherwise peaceful Sunday afternoon. The suspense is provided by Sam, Jr., whose desire to protect his friend Lillian has got him into a jam. The girl's stern father, Craig the druggist, unpleasantly disturbs the after-dinner rest of the Johnsons with heated accusations that Sam, Jr., is a thief. Father Johnson, however, understands his boy's gallant motives, and after the intruder has left and Mother Johnson has retired, he finds in a heart-to-heart talk with his son a perhaps less exemplary than practical solution to the problem. He replaces "seven dollars in quarters and dimes," which the girl, protected by Sam, Jr., has taken from her father's cash register, by "borrowing" from Mother's savings bank, confiding to Sam that he has "borrowed" from it before without being found out. With this example of his own behavior before us, his paternal warning never to lie again does not sound very rigid. Declaring that Sam's honest face must come from "mother's side of the family," Mr. Johnson brings the scene to a happy end with a jaunty punch line.

As part of a full-length comedy the scene would presumably have been placed at the end of the second act, constituting the climax of a carefully contrived plot with father, son, and girl friend as leads and the other characters in supporting roles. The audience would have learned all about the plot and the characters in the preceding scenes and would have been assured that the last

act would summarize and explain the situation in the usual more or less satisfying comedy manner.

The same scene treated as a skit must be self-explanatory and calls for a specific dramatic technique. Plot and characterization have to be arranged in such a way that the brief manuscript presents the whole development of a given dramatic episode, its beginning, middle, and end.

Our episode reveals the greater part of the "beginning" and some of the "middle" retrospectively, a circumstance which, incidentally, has made it especially suitable for translating into a radio script. The "end"—climax and anticlimax at the same time—is acted out by the two leading characters, father and son, and made "happy" by implication (that mother's savings jar will reconcile the two houses) and dialogue (the light, well-phrased curtain line).

Although one cannot maintain that the dialogue is incessantly sparkling, it is at least adult and vivid enough to advance the action, and unquestionably aids in individualizing the characters.

The stage director's task is not unusual. Here, as in any play, he has to create a small world in itself—a world populated by human beings who can laugh and cry, love and hate, rejoice and grieve. He is to accomplish this in a given time without losing himself in details that would hamper speed of performance. He must suggest, indicate rather than paint in detail. Not having at his disposal the narrator of the radio broadcast, however, he must introduce the milieu in a painstakingly devised setting, leaving no doubt about the circumstances of the Johnson family. The living room must represent the dwelling of a happily composed, middle-class family offering comfort to parents and children alike. Father's cherished *Encyclopaedia Britannica* makes up the greater part of the library. Mother's cozy corner holds a huge knitting basket. The old-fashioned desk with its many drawers and pigeonholes inconspicuously holds the main stage property—mother's pin-money jar.

In this room, lighted as if the afternoon sun were dimmed by Venetian blinds, moves a cast carefully selected to portray a typical American family of the period, the Johnsons, and its antagonist, the druggist Leland Craig. Good casting—generally to be considered more than half the director's labor—is doubly important here because the author's necessarily sketchy characterizations have to be deepened by the actors. Type casting is called for. Thus, Mr. Johnson's appearance and make-up as well as his speech and gestures must suggest a type of good-natured relative familiar to everyone in the audience. Mother, small though her part is, must suggest her most pertinent qualities effectively, so that her savings jar is accepted without surprise as an established household article. The son must obviously be cast for the "honest face" that resolves the dramatic conflict and provides the curtain laugh. His speech and manner must confirm the casting. Craig must represent that frequent type of bourgeois pettiness which is devoid of any sense of humor, in order to account for his temperamental outburst.

After having created the milieu and chosen the cast, the director helps the actors build up their parts. As a medium for the actor, the stage has been, and probably will be for a long time yet, far superior to radio and motion pictures; television too, apparently. None of the other three media can offer the actor the same amount of rehearsal time for accomplishing this most important and in the truest sense of the word "creative" work. It is one of the prerogatives of the stage that even for this little scene of less than ten minutes playing time it can afford a great number of complete rehearsals. The precious hours devoted entirely to the actor's development of his part in relation to the other characters brings about that unique ensemble effect which alone makes theater a true art. If, as in our experiment, the original episode is brought to life on the stage first, so that all the characters are established, each knowing all about the others, familiar with their surroundings, fully adapted to the scene, it becomes relatively easy to trans-

late the scene into the terms of other media of communication. Once the actor has built his part during a long period of rehearsals on stage, he can easily adapt himself to either microphone or screen.

In the procedure followed in the demonstration, the ground work done on stage freed the cast from any pains of creation in front of the microphone and the camera. The actors could concentrate on the technical requirements of these media in a way rarely possible to commercial production. Incidentally to the purposes of the demonstration, the procedure revealed how valuable the long-established techniques of the stage can be to the newer media. Those who are primarily concerned with the theater should not forget, however, that the stage too has learned, and, it is to be hoped, will continue to learn, from radio and film.

Has not radio already taught our actors the importance of projecting so that theater audiences can hear and understand as well as radio audiences? And has not the "close-up" begun to challenge our conventional conception of theatrical architecture—to introduce the possibility that theater design will eventually permit the spectator to enjoy the subtleties of acting and facial expression on the stage as intimately as on the screen?

The Radio Script

PHIL ESSMAN

SAM: Things're a lot different now, I guess . . . now that Lillian 'n me're, well, sorta' engaged. But it was awful important when it was happenin'. Y'know, like a lot a' things that happen.

(MUSIC: *Low accent, under:*)

SAM (*Continuing*): It wasn't so long ago, either. I was still workin' part-time for old Craig in the Craig Drugstore. It was after closin' hours in the store on Saturday evenin'. Lillian, Craig's daughter, left an hour or so before, after helpin' me clean up. I was just lockin' the front door when I heard (*fade*) the register up front.

(SOUND: *Register "No Sale" pushed, and drawer opened.*)

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(SOUND: *Register "No Sale" pushed, and drawer opened.*)

SAM (*Off*): Hey!

(SOUND: *Footsteps running on.*)

SAM (*Fading on*): What're you doin' at that box? Get out!

LILLIAN (*Very much frightened*): Oh! (*A quick intake of breath*) I . . . I thought . . .

SAM: Lillian!

LILLIAN (*Incoherently*): I thought the store was closed, Sam; I didn't see any light, I . . . (*Weeping.*)

(MUSIC: *Comes up and covers her.*)

SAM (*Narrating*): It was the sort of thing you just don't expect from a girl. I didn't know what to say or do. It *was* her father's store, o' course, but old Craig was just not the kind of a guy to let Lillian out after nine o'clock . . . much less let her take any money outa' the till . . . I didn't know *what* to do. (*Fading*) She was cryin' awful hard.

LILLIAN (*Fading on*): Please, Sam, please don't let father find out about it.

SAM: Well, gee, Lillian, I'm not gonna tell him. After all, nothin' has been taken or anything.

LILLIAN: That's just it, Sam. I've got to have seven dollars, I've just got to! I lost the money for the class dance. (*Faster now*) Father won't be in till Monday, Sam! I'll have it back by then, I promise. I've just got to have it, Sam, I just got to!

(MUSIC: *Comes up.*)

SAM (*Narrating*): I didn't know what to say . . . but she was all kinda' breathless, and sobby, and . . . pretty. I guess I'd been stuck on her for a long time. . . . After all, it was partly *her* money, wasn't it? And she was right about her father not comin' in till Monday, and . . . well, that was the first part of it. . . . It all woulda' been all right, too . . . if old Craig hadn't left his cane in the store that week end. (*Fade*) 'Cause the next day, Sunday . . .

(MUSIC: *Organ and voices finishing hymn up to close.*)

PREACHER (*Off slightly*): Amen, and keep the words of the Almighty close to your hearts, my brethren. (*Fade back and under*) The Golden Rule . . .

MRS. CRAIG (*On*): Stop nudgin' me, Leland, What d'y'a want?

CRAIG: You'll have to walk home alone after services, Penny.

MRS. CRAIG (*Annoyed*): Why?

CRAIG: I've got to drop by the store, Penny. I left my stick there last night.

MRS. CRAIG: Mind you hurry home, or you'll get a cold luncheon.

PREACHER (*Fading up*): . . . and the divine precept, "Do unto others as you would have them do unto you," is the cardinal rule for all of us. Amen.

(MUSIC: *Organ up and down.*)

SAM (*Narrating*): 'Course, I didn't really find out about it till later that Sunday afternoon. The whole family was sittin' around after dinner.... Father was readin' his usual encyclopedia; Mom was tired, I guess; (*fading*) I was kinda nervous...

(SOUND: *Pacing back and forth.*)

FATHER (*Off*): Sam!

SAM: Yes, father?

MOTHER: Your father wants you to stop wearing tracks in the floor.

FATHER: Exactly, Sam! Why don't you sit down and read, Sam? Haven't you got any home work?

SAM: I've... I've finished it, father.

(SOUND: *Doorbell—twist type.*)

FATHER: Now who can that be?

MOTHER (*Slight fade*): I'll get it!

(SOUND: *Excited footsteps to door; door opens.*)

SAM (*Narrating*): I could see who it was through the window—and my stomach kinda' bounced a little. He was awful mad... his face was that flushed color. I went into the kitchen... too scared to face him, I guess. But I could hear what he was sayin' to Father through the door.

CRAIG (*Muffled*): Your son is a thief, Mr. Johnson!

FATHER: That's quite an accusation, Mr. Craig.

CRAIG: Anyone with your anarchistic ideas, Johnson (*to background*), ought to keep his son under constant watch. He obviously is not capable (*out*)...

SAM (*Over Craig*): He was pretty wild. Father was calm, but he was gettin' mad. After Craig left, Father called me into the living room. I thought to myself, I gotta keep her outa' this, I gotta! There was only one thing to (*fade*) say to Father: I did it! I did it! I did it! (*Wildly*) I did it!

FATHER: Take it easy, Sam. Let's talk this over quietly.

SAM: There's nothin' to talk over, don't you understand?

MOTHER: Well, that may be true, Sam, but I have at least one point I'd like cleared up. For instance, I thought that Lillian helped you close the store on Saturday evenings.

SAM: You leave her out of this!

FATHER: On the contrary, son, I'm beginnin' to think by the way you're actin' that she belongs *in* this.

SAM (*In desperation*): She wasn't there last night. She was home... ill. She's been *sick* all week. She doesn't know a thing about it.... (*Fade*) The money's gone, and I took it; isn't that enough?

FATHER: Hold on a minute, son. Now look here, son, you're a bright kid, way above average, but there's one thing you don't know how to do—you're a real bad liar. Now why not tell me the truth about what happened . . . it'll come out sooner or later (*fade*) and it might as well be sooner. . . .

(MUSIC: *Under:*)

SAM: There wasn't any use in tryin' to keep up the lie any longer. I guess I kinda broke down an' told them about it . . . all about how she was cryin', an' how she was class treasurer, an' how she needed the . . .

FATHER (*Musing*): Seven dollars, eh, son? What kind of coins was the class treasury in?

SAM: Mostly quarters and dimes.

FATHER: Hmmm. Do you suppose, son, if Lillian got that money back, she'd have courage enough to face her father?

SAM: Sure she would, Pa. It's just that she got . . .

FATHER: Never mind, son. Martha, hand me your pin-money jar.

MOTHER: Surely, Sam.

SAM: But Mother, that's the money for your . . .

FATHER: It's all right, Sam, it'll be replaced. (*Pause*) Thank you, Martha. . . . And now, if you'll excuse me, Sam, and Martha, I think I'll take a bit of a walk.

MOTHER: Any special place, Sam?

FATHER: Yep, Martha; I'm bringin' a present to a sick girl friend.

(MUSIC: *Comes up.*)

(MUSIC: *To tag.*)

Production Notes on the Radio Version

W. DAVID SIEVERS

RADIO has developed its own special qualities during its remarkably short career of less than thirty years. Although the radio industry is still hardly more than adolescent, it is likely now that it will never have the opportunity to mature fully. Its parents have produced another offspring, TV, to whom they have transferred their affection with such alacrity that the older medium already suffers feelings of rejection and inferiority.

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When one considers the complications of television production, one is tempted to look with nostalgia upon the simplicity of radio—"the good old days when all you had to worry about was audio." The A.E.T.A. demonstration made it amply clear that, of the four media considered, radio achieves its artistic effects with the greatest economy of means. Thereby it offers a kind of challenge to the imagination that the visual media do not afford.

From the first word of this little six-minute radio scene, we are aware of the added dimension. The focus has shifted, and we are no longer viewing a set of objective characters through the fourth wall of reality. We have taken sides; we are hearing the story through the character of Sam. We are "with Sam," as the radio director would say, and the microphone is within his brain recording his unspoken thoughts. Mr. Essman's script is an excellent illustration of radio's emphasis upon a character who is both participant and commentator. The writer might have gone much farther in utilizing radio's favorite devices, such as the echo chamber (in the church scene) and the filter mike. The latter is particularly useful in dramatizing subconscious motivations and conflicts. Radio is perhaps the medium most perfectly suited to recording the "stream of consciousness." Its peculiar ability to go not only within the individual, but within his unconscious, has a significance in teaching the meaning of human behavior that has never been fully explored by the radio industry.

To set the narration apart from the actual scenes, we surrounded it with music, established by a few notes, held in the background, and brought up for punctuation. This is radio's traditional way of taking the audience outside the picture frame of reality. It is the narrator's unique privilege to suspend the action temporarily while he comments upon it and interprets its significance. He may also, as Sam does, speed the pace and intensify the action by skipping to climactic moments and telling us in one bold stroke what the realistic theater and film would use an appreciable amount of expository dialogue to introduce.

It is the intimacy of radio that has fostered its subjective approach. When Sam stands six inches from the microphone and whispers into it his anguish over Lillian, he is whispering into the ears of his audience—whether it be ten or ten million persons. Unlike the enlarged volume of the stage voice, the blown-up, twenty-foot face on the motion picture screen, or the slightly lopsided and often unshaven-looking faces on a badly tuned television receiver, radio can deliver authentically the warm intimacy of the human voice, the human whisper and the human sigh. Each listener can visualize Sam for himself, and it is generally a more effective visualization than any pictorial art could hope to match. In this respect the therapeutic value of radio as a projective device has been underestimated by psychologists and critics.

Subjective storytelling is not unique to radio, of course. It had been a characteristic of the theater for many centuries, until the early realists banned the soliloquy and the aside. Although the theater and motion pictures emerge from simple realism occasionally in an *Our Town, Dream Girl,* or *Lady in the Lake,* the same theatergoer who rejects these as "experimental" will stay at home to hear and enjoy the selfsame effects on *Suspense, Pat Novak for Hire,* or *Young Widder Brown.*

Mr. Essman's radio script breaks down the four confining walls of the Johnsons' living room. With a few words from Sam and the jingle of a cash register we are transported to Mr. Craig's store. A moment later a few chords on an organ change the setting to the church. To complete the illusion, two new characters are introduced who are not used in the stage or television versions, the minister and Mrs. Craig. Thanks to radio's practice of doubling actors' roles, this need not increase the production costs.

In offering only three locales, this script barely illustrates the very great freedom that radio enjoys (or might enjoy if radio writers weren't restricted to formulas) in changing sets, a hundred times in an hour if necessary, taking us to Runyon Jones' dog heaven or to Curley's caterpillar world, or with a stroke of the

typewriter and a few sound effects transporting us from a teeming street in Pakistan to the planet Mars. Radio's advantage is that the ear is as gullible as the eye is skeptical.

The capacity to do all these things—to change time and place at will, to cover a thousand years in a quarter hour, or one minute in an hour—is not the exclusive property of radio. It is the economy with which radio can do them that gives it its special place in any evaluation of the four dramatic arts. To transmit or to receive radio programs requires a certain amount of relatively expensive equipment. But when these costs are written off, radio comes into its own as the least expensive medium for actual production.

Our six-minute scene required one microphone for the cast and one for sound effects. We used two turntables to play our previously recorded musical bridges. A mixer and a stop watch completed our mechanical requirements. Producing the scene took less than an hour and a half from the time I handed the scripts to the cast until the recording stylus finished the transcription. By contrast with television's high production costs, memorizing of lines, rehearsal time, props, costumes, make-up, scenery, lighting, composition, instantaneous editing, camera movement, titles, and effects—all of which must be accounted for in the budget of a television production,—radio is child's play indeed. Finding a way to finance all this on the same budget that radio finds ample seems to be television's basic problem today.

Television can do many wonderful things. But there are some things that it cannot yet do as well as radio. It may be many years before television finds a way to produce and pay for an educational or public-service program of the stature of *You Are There, The University Theater,* or *The Human Adventure.* These programs, which are low-budget, sustaining shows on the radio, would nevertheless be fabulously costly on television.

Moreover, television is many years from achieving the simultaneous transmission that makes radio the great journalistic medium that it is. The professional theater shrinks into an ever

smaller corner of Manhattan, the motion picture industry wrestles with its own problems of distribution, and television struggles to perfect the kinescope recording, but radio can join together virtually the entire civilized world to hear the homespun voice of a Truman or the mellow oratory of a Churchill; it can bring fifty million pairs of American ears within three feet of the President at the moment he is speaking; it can send us an *American Town Meeting of the Air* from Rome or Ankara. He is a remote and isolated American indeed who is not linked to his fellow citizens and his government by means of a radio set. To predict how many years will pass before as much can be said of television would be sheer crystal gazing.

Those of us who continue to teach radio in this video era believe that the person with radio training will have a sizable contribution to make to television. He will know how to tell a story consecutively, without stopping for retakes; he will know how to find a pattern or format so that he can tell an equally effective story again next week and the week after; he will know how to handle sound effects, music, voice levels, and the other audio techniques that television is apparently borrowing from radio; he will know how to organize his production so that a minimum of studio rehearsal time is taken up; he will know how to work against the exacting demands of the stop watch; he will know how to do his most creative work under the pressure of "Ten seconds—stand by!" He will necessarily be a person of quick decisions, keen sensory perceptions, cool nerve—and, very likely, peptic ulcers.

The Television Script

PHIL ESSMAN

CAMERA NO. 1: *Long shot* of exterior photo of Johnson home.

(MUSIC: *Up, down to:*)

NARRATOR (*o.s.*): A small, quiet sort of place . . . Kingsboro. Just a small town in Ohio with lots of nice people—that is, *mostly* nice people. You'll see what I mean. . . .

CAMERA: *Dolly in.*

This is where it all happened . . . the old Johnson home.

CAMERA: *Dissolve.*

CAMERA NO. 2: *Shooting through* Window Frame A. *Focus on three-shot* of the family in the living room. Sam can be seen pacing.

It was that one Sunday that was so important. It was just an ordinary Sunday for most everyone in the family . . . except Sam, Jr.

CAMERA: *Continuous pan. Start with medium close-up* of Sam.

That's Sam, Jr., who looks a bit nervous.

CAMERA: *Pan to mcu* of Father.

It's his father on the couch, with that heavy book . . . his required reading, the encyclopedia. (*Father wets finger characteristically, turns page, squints at it and turns back to preceding page.*) You'll find him there reading most any Sunday.

CAMERA: *Pan to mcu* of Mother.

And Sam's mother is there of course, this particular afternoon, with her usual busy work. (*Mother, in chair, is embroidering. She inadvertently pricks her finger with the needle. Quick reaction of pain, then a smile of resignation.*)

CAMERA: *Pan left* to center of family group.

FATHER: Sam!

SAM: Yes, father?

MOTHER: Your father wants you to stop wearing tracks in the floor.

FATHER: Exactly, Sam! Why don't you sit down and read? Haven't you got any home work?

SAM (*Lamely*): I've . . . finished it, Father.

FATHER: Well, sit down, anyway.

MOTHER: It's that drugstore job that makes him so nervous.

FATHER: It's good for him. It's good for a boy to work. You know, when I was his age . . . (*Stops as he notices Sam's face.*)

MOTHER: Why, Sam, you look as if you'd seen a ghost!

CAMERA: *Center on* Sam as he walks toward window, staring fixedly.

MOTHER: Lillian's father? Oh! Why . . . why what can he . . . ? He hasn't (*fade*) been here for months. . . . Why could he be coming here . . . ?

CAMERA: *Dolly in* to *cu* of Sam through Window A.

SAM (*Narrating over music. Sam's voice is filtered*): I was scared silly. Everything was kinda whirlin' around in my brain. Craig comin' here and . . . I kept thinkin' of what had happened last night at the store after closin' hours . . . when I caught Lillian takin' money from the register. It was the sort of thing you just don't expect from a girl, especially from Lillian. I didn't know what to say or do.

CAMERA: *Defocus* on Sam. *Dissolve.*

CAMERA NO. 1: *Defocused. Focus in* on *ms* of Lillian at cash register. She punches key of register and reaches in to grasp some coins.

SAM (*o.s.*): Who's there?

LILLIAN: Oh, Sam—where . . . what?

SAM (*Coming into frame at right*): Lillian, what are you . . . ?

LILLIAN: Please, Sam, please don't let father find out about it.

SAM: Well, gee, Lillian, I'm not gonna tell him. After all, nothin' has been taken or anything.

CAMERA: *Pan left* to center on Lillian.

LILLIAN: That's just, it, Sam, I've got to have seven dollars, I've just got to. (*Faster now*) Father won't be in till Monday, Sam! I'll have it back by then, I promise. I've just got to have it, Sam, I just got to! (*Audio fade.*)

CAMERA: *Defocus.*

Oh, if you only knew what I've been through (*Sam leaves.*) You can't imagine, Sam. If you only knew.

CAMERA: *Dissolve.*

CAMERA NO 2: *Focus in* on *cu* of Sam at Window A.

SAM (*Narrating over music. Sam's voice is filtered*): Standing here now, it's like one of those horrible dreams that seem so real . . . and then you pinch yourself and you're safe in bed. But last night wasn't a dream, because I'm here . . . and I can see Mr. Craig comin' up the walk. I feel like hiding . . .

CAMERA: *Cut.*

(SOUND: *Doorbell—twist type.*)

CAMERA NO. 1: *Three-shot* of Craig, Father, and Mother. Father and Mother stand as Craig enters.

CRAIG: The door was open, so I . . .

MOTHER: Good evening, Leland. Come right in.

CRAIG: Thank you. (*To Father*) Mr. Johnson, it seems that you've been spreading your lawless, anarchistic ideas!

FATHER (*Calmly*): Take your hat off, Leland, before you make any accusations.

CAMERA: *Cut.*

CAMERA NO. 2: *Full three-shot.*

CRAIG (*Removing hat*): This is a serious situation, Mr. Johnson, and your attempts at levity are out of place.

MOTHER (*Losing patience*): What's so serious this time?

CRAIG (*Turns to her*): Mrs. Johnson, your son is a thief!

CAMERA: *Dolly in* on Father.

FATHER (*Less calm now*): Look here, Leland . . . anarchism is one thing, but thievery is another! I don't mind what you call me . . . you've said it all before; but be careful what you say about my son!

CRAIG: There's no doubt about it; the boy's a thief, Sam.

FATHER: If you've got anything to back up this wild talk, spit it out; if not, get back to your drugstore and your cash register.

CRAIG: It's my cash register which is the point at issue here, Mr. Johnson!

MOTHER: What do you mean?

CAMERA NO. 1: *Ms* of Craig.

CRAIG: Just this. (*Turns to her, vindictively*) Last night, your son, Sam, who *was* my employee, locked up the store for the evening. This morning, on my way back from church, I stopped by the store, and seven dollars was missing from the till!

CAMERA NO. 2: *Three-shot.*

FATHER: Must have been an inspirin' sermon, to make you rush to the store and count the till money.

MOTHER: Why, Sam hasn't a dishonest bone in his body! He couldn't have stolen this money.

FATHER: Of course not, Martha. (*To Craig*) Haven't you any better evidence to offer?

CAMERA NO. 1: *Three-shot.*

CRAIG: I don't need any better evidence. The boy's a thief. I knew it all along. He's just like the rest of you. An anarchist, that's what he is!

FATHER (*Menacing*): Clear out, Craig! (*He advances on Craig threateningly.*)

CAMERA: *Follow* Craig as he leaves.

CRAIG (*Backs away quickly, jams his hat on his head, and turns at the door*): Anarchist! Anarchist! Anarchist!

CAMERA NO. 2: *Follow* Sam into a *three-shot* of group around couch. Sam starts to leave.

FATHER: Don't leave, son.

SAM: What do you want?

FATHER: Well, son . . . this is a serious charge by old . . .

CAMERA NO. 1: *Ms* of Sam.

SAM: I did it; I don't care; I did it!

FATHER: Take it easy, Sam. Let's talk this over quietly.

SAM: There's nothin' to talk over, don't you understand?

CAMERA NO. 2: *Three-shot.*

MOTHER: Well, that may be true, Sam, but I have at least one point I'd like cleared up. For instance, I thought that Lillian helped you close the store on Saturday evenings.

SAM: You leave her out of this!

FATHER: On the contrary, son, I'm beginnin' to think, by the way you're actin', that she belongs *in* this.

CAMERA: *Dolly in* to tight *two-shot* of Sam and Father.

SAM: (*In desperation*): She wasn't there last night. She was home . . . ill. She's been *sick* all week. She doesn't know a thing about it. . . . The money's gone, and I took it; isn't that enough?

FATHER: Now look here, son, you're a bright kid, way above average, but there's one thing you don't know how to do—you're a real bad liar. Now why not tell me the truth about what happened . . . it'll come out sooner or later.

SAM: But, Pa, I can't . . . don't you see? I can't tell you without involving someone else, and you wouldn't want me to do that, would you?

FATHER: No, I don't suppose I would unless it was someone bad. It was Lillian, wasn't it?

SAM: She had to have the seven dollars. . . . She's class treasurer and she lost the money somewhere and she knows her father will never give it to her and she didn't think he'd miss it.

FATHER: That old skinflint would miss two cents. What kind of coins was the class treasury in, son?

SAM: Mostly quarters and dimes.

FATHER: Do you suppose if Lillian got that money back, she'd have courage to face her father?

SAM: Sure she would, Pa. It's just that she got real scared. If she had the treasury money, she'd go to him and explain the whole thing.

CAMERA: *Dolly back to three-shot.*

FATHER: Martha, get me your pin-money jar.

MOTHER (*Rises, gets money jar, gives it to father*): Here you are.

SAM: I don't want to . . . I can't do that . . . Mother, that's the money for your . . .

CAMERA No. 1: *Ms* of Father. *Center on* him as he leaves room.

FATHER: It's all right, Sam, it'll be replaced. (*Pause*) Thank you, Martha. . . . And now, if you'll excuse me, Sam and Martha, I think I'll take a bit of a walk. (*Father begins to exit.*)

MOTHER: Any special place, Sam?

FATHER: Yes, Martha, I'm bringin' a present to a sick girl friend. (*Father crosses up to arch and exits.*)

CAMERA: *Pan left* for *two-shot* of Mother and Sam. Sam goes to Mother and takes her in his arms.

CAMERA: *Cu* of Sam, with his head on Mother's shoulder.

CAMERA: *Fade out.*

(MUSIC: *Up to tag.*)

Production Notes on the Television Version

RICHARD J. GOGGIN

RICHARD J. GOGGIN, Senior Television Director for the Western Division of the American Broadcasting Company, is teaching television in the Department of Theater Arts at the University of California, Los Angeles. He produced the television show, based on the foregoing script, which was presented at the AETA-UCLA conference.

THROUGH the fortuitous circumstance that television station KECA-TV was not yet on the air at the time of the AETA conference, the American Broadcasting Company was able to make its equipment and personnel available for the television demonstration. Experience with stations in the East, the Middle West, and on the Coast makes very clear that most operating stations, which now maintain full-program schedules and small staffs,

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could not have spared the manpower, the matériel, and the time necessary to participate as ABC did.

ABC's work started several weeks before the date of the conference. Well in advance of production, and even prior to any discussion of the script, came our technical and program survey of Room 170 in Royce Hall, the home of Theater 170 and U.C.L.A. central staging.

From ABC's standpoint, the television demonstration, being outside our studio, fell into the classification of a "remote" telecast, or, more exactly, a "closed circuit," whereby the picture and sound were to be fed to television receivers in areas adjacent to the cameras and no further.

In general, one-time remotes place certain immediate physical limitations upon the production of a program, especially a dramatic performance. They deprive producers and directors of the use of such equipment as slide projectors for titles, drawings, and photographs, special projectors for film sequences and montages, highly mobile studio dollies, and extensible mike booms. In addition, television remote trucks are seldom provided with turntables and always have very limited "control-room" space in which to work.

Room 170 posed particular problems, too. The electrical circuits in the room can supply a maximum of 100 amperes of current. Our electronic equipment alone—cameras, amplifiers, monitors, etc.—required so much of it that there was not enough left to light the set. Finally, a power outlet that could drive our gear was found in the basement, several hundred feet away, and the problem of power was solved.

Next was the problem of lighting. Theater 170 uses a series of small spots of approximately 250 watts each, and in no part of the playing area did this give us as much as 70 foot-candles of illumination. Our image orthicon camera tubes, which give higher definition but are less light-sensitive than the "field" or "remote" tubes, needed more illumination. Finally, four 2-kilowatt lights, sup-

plied by U.C.L.A. and ABC, provided the base light, and the regularly installed smaller spots aided in modeling.

Inasmuch as the date of the demonstration was also dress-rehearsal night for a campus production of *Ah, Wilderness!* we could not have the seats lining the regular playing area removed to give the cameras a fair amount of mobility. This disposed of the possibility of bringing in our larger studio dollies or mounting the cameras on the Motion Picture Division's dollies, and we reconciled ourselves to using two cameras rather than three. Nor was utilizing the Division's extensible microphone boom a practical possibility. There was no place to put it. Stationary microphones had to be suspended from the light grid, just out of camera range.

Having solved the problem of sound pickup for voices, we faced a new problem of music pickup. Recorded theme and mood music was required but we had no turntables. Fortunately, the turntables of the Radio Division were readily made available, and somehow this far from diminutive gear was squeezed into the room. The output of the turntables and the microphones was to be fed into the audio-mixing console in our truck, balanced, and then piped to the speakers in the viewing room. A secondary problem arose when the U.C.L.A. and ABC technicians found that the impedances of their equipment didn't match—U.C.L.A.'s were high impedance, ABC's low. Relatively simple use of a transformer finally worked it out.

With most of the problems of production, engineering, and equipment either solved or compromised, the survey turned to the staging. Because of the limitations of time and space, nothing elaborate could be planned. We agreed to use the one "wall" of the central stage and to place in front of it the main interior set of *Ah, Wilderness!* Any other sets would have had to be wild walls, or single five-foot flats for inserts.

The survey completed, script conferences began between Phil Essman, the writer, James Vandiveer, the ABC director, and me.

The episode previously selected for the three-way demonstration was by no means a highly dramatic one, but in the few minutes allowed it told a story. To clutter up this slight fragment with a multitude of production devices would have been out of place, yet we all wanted to illustrate in the television version certain approaches and techniques that are more or less specific to the medium.

A television script completely different in dialogue and action from the stage and radio versions might have better emphasized television's inherent differences, but the practical consideration that this would require the same cast to memorize three scripts concurrently (*Ah, Wilderness!* and the stage and television scripts for the demonstration) and to read a fourth (the radio script), overshadowed the advantages. We agreed to build the television version closely upon the other two. Anything in the stage and radio scripts that was incompatible with our version, we set aside; anything that was helpful, we accepted. The radio version, for example, sought to achieve variety and demonstrate one of the medium's effective techniques by not telling its story chronologically. It used two flashbacks. Our version, limited—as radio is not—by extra sets and costume changes, had only one flashback.

We used the audio device of prerecorded narration in making the transition in and out of the flashback. It gave a stream-of-consciousness effect as the camera came closer and closer to the actor's face and "looked into his mind" by means of a complementary visual device: one camera slowly went out of focus on the face, and the second camera, already defocused on the flashback scene, was cut in and then slowly brought into focus. A reversal of the same over-all device was used for making the transition back to the main scene.

There was no "scene setting" in the stage version other than that implied by the period furniture and clothing. The radio version necessarily relied upon sound alone to establish locale and mood. Wishing to set the scene both visually and audibly in the

telecast, we planned to get a miniature of a small-village street or just of a house typical of the period. The camera would dolly in on the miniature, backed by music and off-camera narration, come in close on a window, and then we would dissolve to a full-sized window set in a wild wall through which the second camera would shoot. The miniature would then be struck and the first camera would focus on the action.

A rough draft was written, rewritten, and polished.

The day before the demonstration, our technicians installed their gear in Room 170. The director started the dry rehearsal, blocking out the action and walking the actors through their business. Staging, unfortunately, had to be unduly confined because of the overhead stationary mikes and the limited mobility of the cameras.

When camera direction got under way, the director retired to the remote truck. Here, physically removed from his stage and his actors, he had to relay his instructions by intercommunication through the floor manager. Now began the difficulties always attendant upon initial camera run-throughs: starting and stopping; going back; setting camera angles and camera movement; changing, adjusting, or readjusting the lights; evaluating sound pickup and patterns; blending music, voice, and sound effects; scrutinizing costumes and make-up; estimating timing; working out electronic effects with the technicians. Very definitely, television is a director's medium, not an actor's.

The next morning we had the dress rehearsals and made necessary last-minute changes: no miniatures—use a blowup of a picture instead. We had the inevitable technical difficulties, too: a camera acted up. After a final check on costumes and make-up, and complete script run-throughs, the director returns to the stage, has a brief conference with the cast, and then it's: "Break until air time."

Television is not an art form in the sense that the theater is considered to be; it is an industry built upon a scientific "miracle," a

business based like radio upon the sale of its commodities—facilities and time—to practically any buyer. "Art" is at most a tolerated by-product.

Television is not a medium for the select or self-selected audience; it is overwhelmingly a mass commercial medium, as are the screen and radio. Like the screen, it delivers sight, sound, and motion to millions of people; like the radio audience, these millions of people are broken up into groups of three or four or five sitting in living rooms.

Television is not solely a theatrical medium; it is a communications medium delivering theatrical fare in addition to news, special events, sports, education, information, and advertising messages.

Television's effect is not limited to hundreds of thousands of discriminating theatergoers; it reaches the poor, the rich, and the in-betweens by millions upon millions. It comes into homes night after night, slowly changing family habits of leisure and recreation. It initiates chain reactions affecting the scope of the printed word, the spoken word, and the silver screen.

It lacks the slickness of motion picture production, which measures time in months, weeks, and days, allowing scenes to be reshot until relative perfection is achieved. Television's production time is measured, like radio's, in relentless and unexpandable hours, minutes, and seconds. The finality of "on the air" is absolute.

Television may lack the theater's physically present audience, radio's low production costs, motion pictures' perfection, but it offers the wonder of televiewing, or "seeing at a distance," in one's home. Radio with its one dimension—once so exciting—becomes pallid and unsatisfactory, and its national importance in the daily lives of millions is destined, I believe, to be usurped by television in the not too distant future.

I look for television's great and lasting achievements in the fields of public service and special events. Week in and week out program schedules wear thin, program formats have a high mor-

tality, and performing talent can very quickly be burned out. But seeing the limitless variety of the things about us, looking through a rectangular window on mankind at work and play, in victory and defeat, in glory and shame . . . *that* may prove to be the true genius of this child of light and electricity.

The Motion Picture Script

ARTHUR MINTZ

ARTHUR MINTZ is a graduate student in the Department of Theater Arts at UCLA. In addition to writing the motion picture version of the original dramatic episode, he wrote the script for the filming of the demonstration as a whole and acted as assistant director in the shooting.

Fade in.

1. *Ext. Craig Drugstore. Night.*
An old-fashioned street lamp glows in f.g. of a typical small-town turn-of-the-century street. Over this *shot* is a title: KINGSBORO, OHIO—1910. As the *camera dollies in* on the Craig Drugstore, the blinds of the shop are lowered.

2. *Int. Craig Drugstore. Night.*
Sam Johnson, Jr., is softly whistling "And Then You Row, Row, Row" as he finishes lowering the blind. He punctuates his actions by his whistling as he moves along the shelf, adjusting the patent-medicine bottles which have been nudged out of line. He scoops two scraps of paper off the floor. He takes the duster, which he has been carrying under his arm, and holds it on the counter while he jauntily moves along until he reaches the rear of the shop. There he switches off three electric-light switches in tune to the last three notes of music and exits into a little combination dressing room and storeroom.

3. *Storeroom.*
Sam whistles the tune again from the beginning as he removes his white jacket and examines himself in the mirror. He straightens his tie, lifts his hat from the clothestree, and claps it on his head.

4. *Mirror.*
Sam admires his image in the mirror as he tilts his hat rakishly to the side. There is an abrupt *offscreen* ring and grind of a cash register. Sam stops whistling. He turns his head toward the outer door, open-mouthed.

5. *Storeroom.*
Sam's back can be seen as he moves to the open storeroom door and looks into the darkened drugstore. He can see a vague figure. From the drugstore

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Sam's back can be seen as he moves to the open storeroom door and looks into the darkened drugstore. He can see a vague figure. From the drugstore

can be heard quick little scraping sounds and the clanking of coins. Sam turns and desperately scans the storeroom for a weapon. He lifts a cane out of the umbrella stand, tests its weight in his hand; and then, deciding against it, drops it back into place. He raises his head and starts to scan the upper shelf.

6. *Shelf.*

The *camera moves along* the upper shelf of the storeroom. Bottles of every size and description pass in review. The camera passes a bronze mortar and pestle and continues on its way. Suddenly the camera stops. It retraces its path and returns to the mortar and pestle. Sam's hand reaches into the picture and extracts the pestle.

7. *Storeroom.*

Sam clasps the pestle securely behind his back. He moves toward the door. His hand reaches around to the drugstore light switches. He raises the pestle high above his head.

SAM (*both menacing and trembling*): All right! All right! (*He turns on the lights.*)

8. *Int. Drugstore. Night.*

(Lillian, pretty and sixteen, is at the cash register. She is so startled that she gasps very audibly. Then she sees that it is only Sam.)

LILLIAN: Sam! (*Relieved*) You almost scared me to death.

SAM (*Walking toward her, perplexed*): What are you doing?

LILLIAN: I'm just taking seven dollars.

SAM (*Imitating her*): You're just taking seven dollars. (*Gruffly*) Give me that money!

LILLIAN: Stop! You're hurting me! You big . . . (*Nurses her wrist. Peevishly*) It was my money!

SAM: I don't know how you can distort things so. It belongs to your father.

LILLIAN: Well, it's the same thing.

SAM: Look, as long as I'm in charge of your father's drugstore, nothing goes out of it . . . especially money!

LILLIAN (*Quickly*): But I've got to have seven dollars, Sam. I've just got to.

SAM: Ask your father.

LILLIAN: You know him—he gets so angry! (*A brilliant scheme*) Sam, I could take the money from the cash register and put it back before Monday morning. Nobody would even know it was gone.

SAM: No! What do you need that much money for, anyway?

LILLIAN: It's the school dance. They entrusted me with the money for it, and I lost seven dollars. Everyone will think I'm a thief.

SAM (*Being witty*): Now why in the world should they think that!

LILLIAN: All right, laugh at me! (*Hurt*) And I thought you were my friend.

SAM (*Relenting*): Well, it's asking too much of friendship.

LILLIAN: All right, then, don't! (*Offhand*) And here I was, silly enough to save all those dances for you. (*She watches the effect this is having on Sam.*) And it wasn't as if Ned Lesser wasn't after me all week for the first two dances . . . and Millie said I should give them to him just to get rid of him . . . but no, I had to be silly enough to save them for you.

SAM (*He is being won over*): Well . . . if you make sure to get the money back in the cash register before the store opens on Monday . . .

LILLIAN (*Interrupting and embracing him*): Oh, Sam, you darling, you darling . . .

Dissolve to:

9. *Close shot. Piece of paper. Day.*
A piece of paper covered with doodles. A pencil is digging $7 into the paper. The pencil pauses, and then it hastily scratches out $7.

10. *Sam's Bedroom. Int. Day.*
Sam is at his bedroom desk. He finishes scratching $7 from the paper which lies on his desk, and throws the pencil down. Hands behind him, and then in front of him, he paces his room uneasily. The *offscreen* barking of a dog is heard. Sam goes to the window and looks out.

11. *Sam at window.*

SAM: Holy smoke! It's Mr. Craig!

12. *Ext. Johnson home. Day.*
Mr. Craig walks across the lawn. He is a thin, acid type, and at the moment is very busy fighting off a small bull terrier. He menaces the animal with his cane and tries to save the hem of his coat by tearing it from the dog's teeth; but the dog holds on all the tighter. He drags the dog with him as he turns up the path.

13. *Ext. Front door. Day.*
Shot looking up at Craig before the front door of the Johnson home. He manages, although it is a struggle, to reach out and ring the bell with his cane. He speaks down to something which is below the frame and which is jerking intermittently at his coat.

CRAIG (*His voice quavering with fear*): Good dog, good dog! Easy! Le' go! (*Between his teeth*) Get away before I hit you with this! Le' go! Le' go! (*He continues fighting the dog until the door is opened by Sam's mother, Martha Johnson.*)

MOTHER (*At the door; directs her remarks to below frame*): Down, Omar,

down! Get down! Now go to the back yard, you bad dog! Go on! (*To Mr. Craig*) I'm terribly sorry, Mr. Craig. . . . Won't you come in?

14. *Int. Johnson entrance hall. Day.*

CRAIG (*Entering; very irate*): Honest citizens keep vicious dogs out of the street or muzzle them.

MOTHER (*All apologies*): I'm awfully sorry, Mr. Craig. The dog should have been in the back yard . . .

(Sam's father, Sam Johnson, Sr., has emerged from his study.)

FATHER: What's going on out here?

CRAIG: Mr. Johnson, it seems you have transmitted your anarchism to your dog.

MR. JOHNSON (*Patiently*): Take your hat and coat off, Leland, before you make any accusations.

CRAIG (*Sputtering slightly, but removing his hat*): I have a serious matter to discuss with you, and your attempts at levity are out of place.

MOTHER (*Not understanding*): Serious?

CRAIG (*Turns to her*): Mrs. Johnson, your son is a thief.

15. *Upstairs hall.*

Sam is listening to the conversation through the open bedroom door. He slips through his door and edges to the banister, where he continues to listen, out of sight. During this action, the following *offscreen* voices can be heard.

FATHER (*o.s.*): Look here, Leland, anarchism is one thing, but thievery is another. If you've got anything to back up your wild talk, spit it out; if not, get back to your drugstore and cash register.

CRAIG (*o.s.*): It's my cash register which is the point at issue here, Mr. Johnson.

MOTHER (*o.s.*): What do you mean?

16. *Int. Johnson entrance hall. Day.*

CRAIG (*Vindictively*): Just this—last night, your son, Sam, who *was* my employee, locked up the store for the evening. This morning, on my way back from church, I stopped by the store, and seven dollars was missing from the till.

MOTHER: Why, Sam hasn't a dishonest bone in his body! He couldn't have stolen that money.

FATHER: Of course not, Martha. (*To Craig*) Haven't you any better evidence to offer than this?

CRAIG: I don't need any better evidence. The boy's a thief. I knew it all along. He's just like the rest of you. An anarchist, that's what he is.

FATHER (*Threateningly*): Clear out, Craig! Now clear out of here!
(He advances on Craig. Craig backs away hurriedly, jams his hat on his head, and turns at the door.)

CRAIG: Anarchist, anarchist, anarchist!
(The door closes on Craig, and the *offstage* barking of the terrier is resumed.)

CRAIG (*o.s.*): Get away from me, you mutt! Le' go! Get away! Get away!
The *offstage* barking and the *offstage* voice fade off.

FATHER (*Seeking confirmation*): Lillian?
(Mother shakes her head in agreement.)

FATHER (*Obviously disturbed*): Call Sam, Martha!

MOTHER: Sam! (*As she starts to call, she sees Sam coming down the stairs.*) Oh, there you are. Your father wants you.

FATHER: Come with me, son. I want to speak to you in my study.
(Father and Sam move toward the study.)

MOTHER (*Following them*): Now, Sam, don't be hard on him. Whatever he did, he must have had a reason for it, Sam. Now, Sam, . . . Sam!
(The door of the study is closed on her. Mother purses her lips and turns away, disturbed.)

17. *Int. Mr. Johnson's study. Day.*

FATHER: Sit down, son.

SAM: Thanks, Pa—I'd rather stand.

FATHER: Well, son, this is a serious charge Craig makes. (*Lighting a cigar*) Now, you're a real bad liar; so why not tell me the truth about what happened? It'll come out sooner or later.

SAM: But, Pa—I can't—don't you see? I can't tell you without involving someone else; and you wouldn't want me to do that, would you?

FATHER: It was Lillian, wasn't it?

SAM (*Explaining miserably*): She had to have the seven dollars, Pa. She's class treasurer and she lost the money somewhere and she knows her father will never give it to her and she didn't think he'd miss it.

FATHER: That old skinflint would miss two cents. What kind of coins was the class treasury in, son?

SAM: Mostly quarters and dimes.

FATHER: Do you suppose, son, if Lillian got the money back, she'd have courage enough to face her father?

SAM: Sure she would, Pa. It's just that she got real scared when she found the money gone. If she had the money for the treasury, she'd go to him and explain the whole thing.

FATHER: Then why don't you get the money for her?

SAM: Get it, Pa? Where?

FATHER: There's one sure place to find seven dollars in quarters and dimes, son . . . (*He goes to an ornamental jar at his desk*) . . . your mother's pin-money jar.

SAM: But Pa, she'll know I took it.

FATHER: I'm taking it, son, not you. You'd be surprised how many times I've been short and made it up from this jar without her ever missing it. (*Gives Sam the jar*) Now here—go to Lillian and get this thing straightened out.

SAM (*Swallows hard*): Thanks, Pa.

FATHER: And son—let this be a lesson to you,—just do so much for a woman and no more!

SAM: Yes, Pa.

MR. JOHNSON (*Taking his son by the arm*): And now let's get back to your mother before she imagines I'm beating you or something and calls the police.

(There is a feeling of comradeship between father and son as they exit through the study and . . .)

Fade out.

Production Notes on the Motion Picture Version

NORMAN G. DYHRENFURTH

IN THE early days of movie making, people were satisfied with the reproduction of vaudeville acts. This led to the more or less faithful recording of stage plays on film. But the obvious fact that film was unable to create the contact between actors and audience that is so important in the theater retarded the development of film for many years. The camera was completely objective and stationary, like a somewhat bored spectator in the last row. However, when watching a stage play, the eyes of even the farthest spectator do not focus on the entire stage, but concentrate on certain points of interest. The rest of the stage is not out of focus, but is indistinct because of spherical vision, which falls off gradually toward the

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margins. The camera lens, on the other hand, produces clear definition over the entire area of an arbitrarily proportioned screen, giving a totally different effect.

Motion pictures have certain advantages over the theater which were not recognized at first. The greatest of them all is that they are not restricted by space and time. In the past few years many of the successful Broadway plays have been produced as motion pictures, but most of them fell far short of the stage versions because the film makers tried to copy theater on the screen. They did not take advantage of the possibilities and freedom of their own medium.

When the problem of doing a cinematic interpretation of an original dramatic episode is faced, certain basic decisions have to be made. First, we must consider what we have to work with in the way of budget, space, and equipment. If we have a fully equipped sound stage at our disposal, we can shoot lip-sync dialogue and build sets that look more realistic than reality. If the budget is very small, we should consider the documentary approach, using real settings instead of a sound stage. Since very few real settings are acoustically adapted to good sound recording, we should not do any recording on location. Instead, we should use voice-over-narration, or thought-voice, or a combination of both. If dialogue within the scene shot on location is of vital importance, postsynchronization might be considered.

Perhaps the greatest advantage of film over radio, theater, and television is that we do not have to shoot in continuity. When breaking down a shooting script, we can plan the shooting order in accordance with such factors as camera setups and the availability of actors, space, and equipment. We may choose to shoot all the long shots of a scene first, for example, then all the medium shots, two-shots, medium close-ups, and close-ups. We break the action down into fairly short pieces in shooting and cut from one camera setup to another in the final continuity. This places quite a burden on the script girl, who has to make the very detailed

notes that are relied upon in matching action and spatial relations in the several shots of one scene. If the camera is to be fluid as in Hitchcock's *Rope,* however, much more preparation is needed and the burdens are greater.

The radio and television versions both made use of flashback sequences. The same device can be used effectively on film, with a choice of several treatments.

1) The hero tells his story to someone else, without any visual record to accompany his narration. This is very static, and is done much better on the stage.

2) As he starts to tell his story, the scene dissolves to the flashback sequence, while his voice continues as straight narration.

3) Same as (2), but his voice fades out, to be replaced by the voices and sound effects of the flashback sequence.

4) We see him go through the action of the flashback incident, with no lip-sync dialogue whatsoever. Only his thoughts are recorded on the sound track, on a lower and more intimate level.

There are many ways of leading in and out of flashbacks, aside from the usual optical effects such as dissolves or fades. Visual, ideological, or audio transitions, used either by themselves or in combination with optical effects, have been found effective.

The rest of the cinematic treatment should be as different from the other three versions as possible: it should have very realistic settings, good lifelike make-up, three-dimensional lighting that sets the mood of the scene, fluid camera movement which avoids making the audience camera-conscious. Photography in a motion picture is good only as it serves to tell a story. Should the audience become too acutely aware of the beauty of the photography or the virtuosity of the cameraman, the story is apt to suffer. This applies fully only to storytelling motion pictures in which character and plot hold the center of interest, and not at all to motion pictures in which the pictorial in itself is the film maker's concern.

The mere fact that the motion picture script makes use of a large number of different sets does not sufficiently point up the

differences between motion pictures and the other media. Subjective camera treatment, sound perspective, camera movement, overshoulder shots, close-ups, reverse angles, storytelling lighting and composition, and cutting may create a mood on the screen that is quite different from the writer's original conception. Some motion picture directors like to work with scripts that have been broken down to the last detail into camera angles and setups, whereas others prefer to use their own imaginations on the set, working—at the extreme—from a mere story outline.

Our motion picture script was fairly loosely written, leaving the director a good deal of freedom. Scene 10 is a good example: "Medium shot of Sam at his bedroom desk. He finishes scratching $7 from the paper which lies on his desk, and throws the pencil down. Hands behind him, and then in front of him, he paces his room uneasily. The offscreen barking of a dog is heard. Sam goes to the window and looks out." This scene could be shot in several ways:

1) The camera faces Sam sitting at his desk. He gets up, walking toward and away from the camera. As he stops at the window, we cut to an overshoulder shot.

2) The camera views Sam from the side at a sufficient distance to keep him in the same frame when he starts his pacing, without having to pan back and forth with him.

3) Same as in no. 2, but the camera is close enough to keep Sam in a medium close-up, thereby making it necessary to pan with the distraught hero.

4) Camera faces Sam as in no. 1, but the camera is mounted on a dolly or crane, maintaining the same distance from Sam by moving back and forth.

5) The camera is kept stationary during all of Sam's pacing, then dollied in to an overshoulder shot as he walks over to the window.

6) The entire scene is shot from a high angle, either with a wide-angle lens or following Sam's movements with the camera.

These are only some of the possible treatments. No. 1 is rather static, but has fairly good dynamic composition. No. 2 shows more movement and nervousness, but has bad composition and does not get close enough to Sam to show his frame of mind. No. 3 conveys a feeling of confusion and excitement, gets sufficiently close to the actor, but may become tiresome on account of the slightly blurred background. No. 4 would probably be my choice, giving good composition, closeness to the actor, and movement enough to convey his confused thoughts without the blur effect of a fast pan. No. 5 has all the advantages of no. 4, with the exception of the element of nervous tension. No. 6 is primarily intended to dwarf the actor into insignificance, making him pathetic and almost ridiculous. To achieve the opposite effect, we would shoot from a low angle.

Once the shooting is over, many things can be done to the film by means of cutting, recording, re-recording with music and sound effects, and other technical procedures which, again, may give effects entirely different from the ones originally planned and even an entirely different picture. Many films have been created in the cutting room, a fact which does not always point up the director's abilities, but which certainly places the motion picture in a category by itself.

Hollywood in the Television Age

SAMUEL GOLDWYN

SAMUEL GOLDWYN is a major pioneering figure in the history of the motion picture industry. This article, reprinted from the *New York Times* of February 13, 1949, may be regarded as the first fully developed, authoritative statement on the challenge of television to the industry.

MOTION PICTURES are entering their third major era. First there was the silent period. Then the sound era. Now we are on the threshold of the television age.

The thoroughgoing change which sound brought to picture making will be fully matched by the revolutionary effects (if the House Un-American Activities Committee will excuse the expression) of television upon motion pictures. I predict that within just a few years a great many Hollywood producers, directors, writers, and actors who are still coasting on reputations built up in the past are going to wonder what hit them.

The future of motion pictures, conditioned as it will be by the competition of television, is going to have no room for the deadwood of the present or the faded glories of the past. Once again it will be true, as it was in the early days of motion picture history, that it will take brains instead of just money to make pictures. This will be hard on a great many people who have been enjoying a free ride on the Hollywood carrousel, but it will be a fine thing for motion pictures as a whole.

Within a few years the coaxial cable will have provided a complete television network linking the entire country. Whether the expense that is involved in producing full-length feature pictures for television can possibly be borne by advertisers or will be paid for by individual charges upon the set owners, no one can say today. But we do know that with America's tremendous technological capabilities and our ability to adjust to new situations, nothing will stand in the way of full-length feature pictures in the home produced expressly for that purpose.

Even the most backward-looking of the topmost tycoons of our industry cannot now help seeing just around the corner a titanic struggle to retain audiences. The competition we feared in the past—the automobile in early movie days, the radio in the 'twenties and 'thirties, and the developing of night sports quite recently—will fade into insignificance by comparison with the fight we are going to have to keep people patronizing our theaters in preference to sitting at home and watching a program of entertainment. It is a certainty that people will be unwilling to pay to see poor pictures when they can stay home and see something which is, at least, no worse.

We are about to enter what can be the most difficult competition imaginable with a form of entertainment in which all the best features of radio, the theater, and motion pictures may be combined. Today there are fifty-six television stations on the air, with sixty-six additional stations in process of construction. The chairman of the Federal Communications Commission points out that by 1951 there may be 400 stations in operation. There are now 950,000 receiving sets installed, sets are being produced at the rate of 161,000 per month and next year that rate will be doubled. Soon there will be a potential audience of fifty million people or more.

Here we have the development that will change the whole entertainment business. Fifty million Americans will be able to sit at home and take their choice of visiting the ball park, the prize-fight matches, the wrestling bouts, the legitimate theater, and the motion pictures without stirring from their own living rooms. It is going to require something truly superior to cause them not only to leave their homes to be entertained, but to pay for that entertainment.

How can the motion picture industry meet the competition of television? Most certainly the basic business tactics—if you can't lick 'em, join 'em—apply in this case. If the movies try to lick television, it's the movies that will catch the licking. But the two in-

dustries can quite naturally join forces for their own profit and the greater entertainment of the public. Instead of any talk about how to lick television, motion picture people now need to discuss how to fit movies into the new world made possible by television. Here are some of the ways in which that tailoring process can be effected:

First, the reality must be faced that if the motion picture industry is to remain a going concern—instead of turning into one that is gone—it will have to turn out pictures several times as good as pictures are, on the average, today. Such recent pictures as *Joan of Arc, The Snake Pit, Portrait of Jennie, Johnny Belinda, The Search,* and *Miss Tatlock's Millions* are proof that Hollywood has creative capacities which are utilized all too rarely. Pictures like these, far above the average today, will have to be the norm in the future.

A factor on our side is that people will always go out to be entertained because human beings are naturally gregarious. But before the moviegoer of the future arranges for a baby sitter, hurries through dinner, drives several miles, and has to find a place to park, just for the pleasure of stepping up to the box office to *buy* a pair of tickets, he will want to be certain that what he pays for is worth that much more than what he could be seeing at home without any inconvenience at all.

Assuming that better pictures will be made, there remains the problem of how the motion picture industry is going to receive financial returns for pictures made for television. The greatest potentialities lie in a device called phonevision.

This device is not yet known to the American public because it has not yet been placed upon the commercial market, but to motion picture producers it may well be the key to full participation in this new, exciting medium of entertainment. Reduced to its simplest terms, it is a system by which any television-set owner will be able to call his telephone operator, tell her that he wishes to see *The Best Years of Our Lives* (if I may be pardoned for think-

ing of my favorite picture), or any other picture, and then see the picture on his television set. The charge for the showing of the picture will be carried on the regular monthly telephone bill.

Phonevision is normal television with the additional feature that it can be seen on the phonevision-television combination set only when certain electrical signals are fed into the set over telephone wires. No television set without the phonevision addition is capable of picking up phonevision programs, and no phonevision-television set can pick up such programs without those electrical signals supplied over the telephone wires on specific order.

The fee paid by the set owner will presumably be divided between the television transmitter, the picture producer, and the telephone company. The range of possibilities which this prospect opens to motion picture producers is almost limitless, for every television owner becomes just as much a box-office prospect inside his home as outside it.

It must be borne in mind that full-length pictures in the home are not necessarily something which will be realized in the immediate future. Despite the rapid pace at which we hurtle ahead, I am inclined to believe that the production of full-length pictures designed especially for home television will not become a practical reality for at least five to ten years more. Although phonevision seems to be ready for commercial adaptation today, it is obvious that no motion picture producer can risk the huge investment required for a full-length feature picture for television alone unless he has some reasonable assurance of recovering his costs.

In addition to producing for television, motion picture companies will undoubtedly make strenuous efforts to participate in the ownership and operation of television stations themselves. Already several of the larger companies have made extensive plans along these lines. An element which could blight the development of television would be the introduction into that field of monopolistic controls and practices similar to those which, in the

motion picture industry, have hurt independent production. But this possibility should be reduced to a minimum by the fact that television-station ownership by theater companies and their affiliated interests, as well as others, will be limited by the Federal Communications Commission rule which provides, in effect, that no single interest can own more than five television licenses.

What effect will the exhibition of films over television have upon the type of films produced? First, one must hedge by saying that until we know whether the use of phonevision can supply sufficient revenue, or until advertisers can bear the cost of such full-length productions—a remote possibility,—we will all remain in the dark as to the direction to be taken by pictures produced essentially for that medium. One can venture a few predictions, however, as to the reasonable probabilities.

There is no doubt that in the future a large segment of the talents of the motion picture industry will be devoted to creating motion pictures designed explicitly for this new medium. As today's television novelty wears off, the public is not going to be satisfied to look at the flickering shadows of old films which have reposed in their producers' vaults for many years. Nor will the public be content to spend an evening looking at a series of fifteen-minute shorts such as are now being made for television. There will be a vast demand for new full-length motion picture entertainment brought directly into the home.

I believe that when feature pictures are being made especially for television, they will not differ basically from those made for showing in theaters. The differences will be chiefly variations in techniques. The craving which all of us have to lose ourselves, temporarily at least, in the adventures, romances, joys, trials, and tribulations of characters created by storytellers does not change much, whether those characters are portrayed in a novel, on the stage, or on the screen—or whether that screen is in a theater or in one's own living room.

But in this new medium there will undoubtedly be a greater

emphasis on story values than exists today. A person rarely walks out of a theater before he has seen the picture he came to see, regardless of whether it lives up to his expectations. A variety of reasons are behind this—the admission price he paid, the fact that he has no control over the program, the fact that if he leaves it will probably be too late to go to another theater, etc. At most, only one of those factors—the equivalent of an admission price—will be present in the home. The knowledge that the spectator will be able to move from one picture to another by the mere turn of the dial is bound to make those who will produce pictures primarily for television concentrate on keeping the audience vitally interested.

I believe, too, that there will be a reversion, for a time at least, to a lustier, broader type of acting than we have seen since sound changed motion picture acting techniques. Because of the small viewing surface of present-day home television screens, the subtleties of underplaying which can be observed on the large motion picture theater screen are lost to the television viewer. Unless the home screen becomes measurably larger, actors will find that the emotions which they can portray today by nuances will have to be conveyed by much broader expression.

Along the same general line, I am inclined to believe that the pacing of feature pictures designed primarily for television will be found to be more rapid than the normal tempo of motion pictures in the theater. Feature television pictures will probably not run over an hour—a reduction of from thirty to fifty per cent of the running time of present-day features. The need for compressing the essential elements of the story will inevitably result in accelerated tempo.

All of this makes for an exciting and stimulating future even though it is impossible to forecast what the specific nature of the interests of motion picture companies or individual theater owners in television stations will be. Ultimately, a pattern will evolve out of the jumbled jigsaw puzzle of experimentation.

The certainty is that in the future, whether it be five or ten or even more years distant, one segment of our industry will be producing pictures for exhibition in the theaters while another equally large section will be producing them for showing in the homes. The stimulus of this kind of competition should have nothing but good results. The people best fitted to make pictures for television will be those who combine a thorough knowledge of picture-making techniques with a real sense of entertainment values and the imagination to adapt their abilities to a new medium.

The weak sisters in our ranks will fall by the wayside. But no one in our industry who has real talent need fear the effects of television. I welcome it as opening new vistas for the exercise of creative ability, spurred on by intense competition.

I have always been basically optimistic about Hollywood and its potentialities. I see no reason to change my views now. I am convinced that television will cause Hollywood to achieve new heights and that, as time goes on, above these heights new peaks will rise.

Television and Motion Picture Production—and Kinescope Recordings

RICHARD J. GOGGIN

RICHARD J. GOGGIN is Senior Television Director for the Western Division of the American Broadcasting Company. He is currently a lecturer in theater arts at the University of California, Los Angeles, and is engaged in writing a basic book on television to be published by Prentice-Hall.

RECENTLY, several views have been advanced by various executives and film makers in the motion picture industry about the future of television, and more specifically about how that particular future would affect the general future of the films. "Lick 'em," "If we can't lick 'em, join 'em," "People are gregarious," and "Phonevision is the only answer," have become recurrent watchwords in the face of a finally recognized threat to the motion picture industry's longevity, importance, and income.

What I have to put forth in this article is yet another view, another one man's opinion, which insists that television is more important to the motion picture industry as a partner than as a competitor, and which proposes a means for "joining 'em." It is based, I believe, on a minimum of crystal gazing, which, though often delightful as a pastime, is far from being a legitimate offspring of the science of optics. This by way of preamble.

The major motion picture studios say it is impossible for them to make a "quality" product for television now at a mutually acceptable cost. Several of the small independents and some of the office-in-their-hats boys have tried their hand at it. No matter how much they have cut corners in production, however, few of them have been able to meet the buying price, and in general the cut corners have been all too obvious.

The trouble as I, an admitted outsider to movies, see it, is that the major, minor, independent, and no-studio producers seem to

have thought that making films for television should automatically fall into the same basic procedural mold as making films for theater release.

A few minutes of film "in the can" each day is considered a good day's shooting. Generally, not much more than this has been achieved. Among the reasons are the interminable amount of time required to make each camera setup (which may result in only a few seconds of film) and the many minutes consumed in striking one setup and moving on to another position. The "lost" minutes of production swiftly mount into hours and days; the "gained" seconds of usable film creep very slowly into minutes. Then days or weeks must be spent in cutting, editing, scoring, and so forth.

That is established, time-honored, movie-production procedure.

Contrast this with current live television procedure: all the sets, cast, musicians, technicians are in the studio at the same time. Instead of the usual one camera of the movies there are two, three, or four television cameras—all very mobile and each having up to four lenses, each camera thus being capable of quick change of position and practically instantaneous change of width of field, from long shot to medium shot to medium close-up to full close-up.

The director sits in the control room, a veritable virtuoso (or, rather, he *should* be) who has prepared, in a few hours of rehearsal shooting, for a show that consumes thirty, forty-five, or sixty minutes of air time! He doesn't work in the dark, as a movie director does, never being certain of what is on his film until he sees the rushes that night or the next day. Instead, on "viewing monitors" before him the television director sees immediately what each of his many cameras is "photographing." And he hears immediately what each of his microphones is picking up: dialogue, music, sound effects.

Instead of staging and photographing his action in dozens of bits for future assembly, he stages continuous action and his cam-

eras photograph continuously. He is also his own editor, planning in "dry" rehearsals and confirming in subsequent camera rehearsals what shots he will take and when. Then, "on air," he integrates all the visual and auditory components into what he hopes will be a well-rounded, satisfying, entertaining program. This is not a boy's job, but a man's. And the man who does it must be quick, alert, decisive, and self-controlled—as well as talented.

Kinescope recording, for those who may not know the term, is a label given to a newly developed method of transferring a television program, both sight and sound, onto film. Briefly: a specially built motion picture camera (sometimes 35-mm., more often 16-mm.) is placed close to a kinescope—the viewing tube in a television receiver,—and what is seen on the tube is photographed exactly. What is heard on the receiver's speaker is fed to the camera, and also transferred exactly onto film, usually by means of single-system recording.

One quick qualification is in order. "Exactly" refers to the content of the program, not to its technical quality. Kinescope recording, as of this day in 1949, is inferior technically to live telecasts and standard motion pictures; yet I believe even its more biased detractors will admit that it has improved immeasurably in the past six months. That it will continue to improve sufficiently to receive widespread acceptance, I have no doubt.

Let me look beyond its present deficiencies and immediate uses and attempt to estimate its potentialities.

Most of the talk now about kinescope recording revolves around its use by television networks as a substitute means of getting program material to those stations which are not interconnected by coaxial cable or microwave relay. It is also used for air checks and auditions of programs. That kinescope recording can serve these functions, and serve them satisfactorily, is increasingly evident.

Will it mean no more than this in the future? Will the kinescoped film be strictly a photographed replica of a live program, a

facsimile which records any or all of the possible mistakes of actors, directors, and technicians, and the possible flaws or temporary breakdowns of video, audio, and recording equipment?

Will whatever is on that kinescope recording—good, mediocre, or bad—remain there? Will there be no re-recording?

You might ask: *Could* there be re-recording? The answer is: Certainly! There is no reason in the world why many programs have to be telecast live in the first place. They can be rehearsed in small but complete sections—one minute, three minutes, five minutes at a time—and piped to the recording room. From that point on, it is for the most part a matter of quick processing and assembling.

If an actor fluffs or the director calls the wrong shot, if a technician is late in changing a lens or the equipment momentarily acts up, the sequence can be stopped, the unsuccessful part of the kinescope recording marked for elimination, and the sequence begun over again.

There is no reason why this is not done in television now, except for time and money. There are other telecasts that have to originate in that studio, too. Most need rehearsal. All need air time. The day is just so long. And camera rehearsal beyond the minimum number of hours or minutes is an extra, out-of-pocket cost that stations and advertisers in general can now ill afford.

But if, in attempting to look beyond our noses at the unpredictable future, we do not see kinescope recording as something much greater in significance than a live program facsimile, and much vaster in scope, then the television industry—and its friends or rivals in the motion picture industry—may some day be justifiably labeled shortsighted and unimaginative.

With the crystal ball not too far removed, I suggest that a new approach to or a new utilization of kinescope recording is perhaps the answer to the present dilemma: alongside the realization that live telecasts and their kinescoped facsimiles must always have an inherent Achilles' heel of human and technical defects, is the very

great problem of making for television numberless motion pictures (in which one *can* guarantee controlled conditions and relatively perfect end results) at a price that television can pay and at which the film producer can buy a shirt instead of losing it.

Here, I suggest, is the motion picture industry's entrance cue. It can't lick television, so why not join it? Why not turn the disadvantage of competition into the advantage of collaboration?

Television, I believe, needs the motion picture industry. It needs its resources, its techniques, its creative, interpretative, and technical talent. But it needs only a small part of all this directly; the large part it needs indirectly through receiving for telecasting the end product of all their resources: films of quality in an abundance that will answer the devouring demands of television.

One network president predicted that television would require 5,000 hours of film a year. That is 96 full hours a week, 192 half hours. On a six-day-a-week shooting basis this estimate would require thirty-two different production units capable of putting thirty minutes of film in the can each day! Impossible? With present movie-production standards, by which two minutes a day is a lot, of course it is impossible. But in television's kinescope recordings may lie a partial answer for the present and a new technique for the future. Here is the method:

Let the larger movie companies set up subsidiary companies whose sole purpose is to make films for television, companies that would not be burdened with the 35 to 55 per cent continuing overhead that the parent companies have even when there is no shooting on the lot.

Key the salaries of executives, producers, directors, writers, actors, technicians in the subsidiary companies to radio-television rather than to motion picture standards: special agreements for this production situation with the unions; no relatives, friends, or other supernumeraries on the pay rolls.

Equip some of the sound stages with television cameras, control rooms and kinescope recording rooms. Arrange shooting sched-

ules as television does, but allow controlled conditions and the luxury of redoing a defective sequence. In actuality, it is no luxury.

Make pictures in segments of one, three, five, or more minutes, but, following *television* procedure (as outlined previously), shooting with many cameras, editing concurrently, staging the action continuously, with music, dialogue, and sound effects already blended. And pipe the finished output of these segments, both video and audio, instantaneously and simultaneously to the kinescope recorders. Preproduction planning and careful shooting schedules would be the keys to successful operation.

As I see it, the major motion picture companies have the most to lose if television should decimate their theater audience. Conversely, they may have the most to gain if, besides making films for audiences in theaters, they make other films for the audiences at home. Admittedly, this means a new conception of distribution and box office, for if the living room continues to exert its charm at the expense of the motion picture theater, or should ever hold sway over it, then the lessened ticket-window receipts can be augmented by the income from television stations and advertisers.

The motion picture producer would continue, in television, to make a product for people to see and hear, but he would alter his production methods to fit the needs of a screen measured in square inches rather than in square feet. He would adjust his films to what future research may reveal about the special requirements of an intimate audience. Finally, he would deliver many films of good quality at a relatively minor cost. He must realize, in my opinion, that in terms of physical reception, the attitude of the audience, and basic economics, the standards of television are now, and will continue to be, not those of the film industry, but rather parallel extensions of the standards of radio broadcasting.

There are many open questions in this proposal. One that comes to mind immediately is, What about the unions? Would they be willing to accept pay scales lower than prevailing motion picture

rates in this situation? I hope so; in return they could give their membership the chance to have year-round employment. There would be no unpredictable highs and lows. Television is not seasonal; it goes on, day in and day out. The crafts and guilds would have what many persons in the motion picture industry miss most—job security and a steady pay check.

Another problem would be the ever-present one of maintaining a high level of quality both in production and in program content. Some motion picture makers hold that speeding up motion picture production tends to lessen its quality. Apparently the horse was speeded up by whipping rather than by giving him less to pull. As I see it, speed would be achieved by lightening the load of high studio overhead, eliminating excessive personnel, and reducing salaries. Furthermore, so far as production and shooting techniques are concerned, the old horse would be retired to pasture, and a new one, adapted by nature to a fast pace, would be brought in to replace him.

What the quality of the programs on a week in, week out basis would be, is another open question in this proposal. But hasn't it been a major question in radio for more than two decades and in television ever since the end of the war? As each year leads into its successor, this will be an ever-increasing problem in television because the medium burns up material, man power, and talent so quickly.

Someone has to meet this problem because the television industry as it is now constituted cannot do it itself. The creative people in the motion picture industry and elsewhere are needed. Their ideas, talent, and *imagination* are needed for more than the single-program classification, the dramatic story contrived solely for entertainment. The program structure of television has far wider scope than this. Entertainment is only one facet.

Finally, there is the question of the financial gamble involved in an initial investment in television equipment and installation, starting at almost $200,000 for each production unit.

But these are not insuperable problems, creatively, economically, or operationally. Meeting these problems may well mean that movie producers have met the challenge of television, not by fighting it out or ignoring it, but by joining in a mutually advantageous partnership with another of this century's great mass media.

Theater Television Today (Part I)

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The opinions and conclusions expressed herein are the personal views of the authors. Part II of the article will appear in Vol. IV, No. 3.

I. INTRODUCTION

THERE ARE strong signs that the motion picture industry, in facing the problems created by the spectacular boom in home television and its impact on motion picture attendance, intends to "fight television with television." Primarily, this means that large-screen theater television may soon be brought out of the laboratory and private demonstration stage and revealed full-blown to the movie-going public.[1] The creation of what amounts to a new medium of mass entertainment and communication involves numerous technical, economic, and legal problems, and calls for broad vision, clarity of thinking, and inspired leadership. The purpose of this article is to discuss the principal problems in the light of present knowledge in an endeavor to contribute to a wider understanding by the motion picture and television industries of the nature and scope of these problems.

Theater television is the exhibition of visual and aural television programs on large screens (about 15 by 20 feet), in motion picture theaters. These programs are photographed outside the theater by regular television cameras; transmitted to the exhibiting theater by television techniques over microwave radio relays, coaxial cables, or telephone wires; and received in the theater by television receiving equipment. In the United States, two systems

[1] Other uses of television by the motion picture industry might include (1) ownership of television broadcast stations, and (2) development of pay-as-you-see television schemes such as Zenith Radio Corporation's "Phonevision."

of theater television equipment have been developed for installation in the exhibiting theater for the purpose of projecting the television program as received in the theater to the screen: the *direct projection system,* and the *intermediate film system.*

At the outset, theater television must be distinguished from television broadcasting or "home television." A television broadcast station, as contemplated by the Communications Act and as defined by the rules of the Federal Communications Commission, means "a broadcasting station utilizing both television and telephony to provide combination and simultaneous visual and aural programs *intended to be received directly by the general public.*" In other words, television broadcast stations licensed by the F.C.C. are intended to transmit television programs to the public generally, primarily for reception in the home. Theater television does not come within this definition, because its programs are beamed directly by means of closed circuit coaxial cables or wires or by directional microwave relays to the exhibiting theater and are not intended to be received by the general public.

II. Theater Television History

Large-screen projection television is nearly as old as the direct-view television that predominates in home television reception. In 1930, only two years after the Federal Radio Commission authorized the first experimental television broadcast stations, television on a 6 by 8 foot screen was shown by RCA at RKO-Proctor's 58th Street Theater in New York City. Large-screen theater television on 15 by 18 foot screens was exhibited in London in 1939, and by the end of that year five theaters were equipped for theater television. In 1941, a Madison Square Garden prize fight and a Brooklyn Dodgers baseball game were demonstrated to the public on a 15 by 20 foot screen in the New Yorker Theater by RCA. The onset of the war interrupted the further development and commercialization of theater television both in England and in the United States.

During the general hearings on the allocation of frequencies held before the F.C.C. in 1944 and 1945, Paul J. Larsen on behalf of the Society of Motion Picture Engineers appeared before the F.C.C. and requested an allocation to theater television.

At the end of the war, Paramount Pictures, Inc., under the direction of Paul Raibourn, directed its research to the development of the intermediate film system of theater television, which culminated on April 14, 1948, in the public exhibition of a fifteen-minute televised newsreel at the Paramount Theater in New York. The television pictures were transmitted via 7,000-megacycle microwave relay from the Navy Y.M.C.A., Brooklyn, to the top of the *Daily News* Building on East 42d Street, thence to the Paramount Building at Broadway and 43d Street, and from there down a coaxial cable to the receiving and film-making equipment. The pictures were filmed on regular 35-mm. film and, by use of the new rapid film-developing process, reached the 18 by 24 foot screen sixty-six seconds after the scenes were shot. On June 25, 1948, the same process was employed in a showing of the Louis-Walcott prize fight on the screen of the Paramount Theater, and since then a similar showing has been held in the Paramount Theater almost every week.

Meanwhile, RCA Laboratories, collaborating with 20th Century–Fox Film Corporation and Warner Brothers Pictures, proceeded with the development of the direct-projection system of theater television. In July, 1947, Earl I. Sponable, Technical Director of 20th Century–Fox, and Colonel Nathan Levinson of Warner Brothers, signed research and development agreements with RCA for joint participation in the development of this system. The three organizations sponsored a private showing of theater-sized television (15 by 20 foot) at Warner's Burbank studio in May, 1948, at the time of the National Association of Broadcasters convention, and on June 25, 1948, history was made by the public showing in the Fox-Philadelphia Theater of instantaneous television pictures of the Louis-Walcott prize fight, using an intercity

relay from New York to Philadelphia. The program was picked up at Yankee Stadium in New York City and relayed by microwave relays successively to WNBT, Empire State Building; WPTZ, Wyndmoor, Pennsylvania; and the Fox-Philadelphia Theater, a total distance of about 100 miles. From the roof of the theater the program was run to the receiving and projecting equipment by coaxial cable. The reactions of the audience in the 2,400-seat theater were described as highly enthusiastic. Recently, on April 4, 1949, the RCA-Fox-Warner system was demonstrated to the S.M.P.E. convention at the Statler Hotel, New York City, the programs being relayed in part via balanced telephone wires, supplied by the telephone company, from the Empire State Building to the hotel. The RCA-Fox-Warner group has also developed intermediate-film equipment.

III. Theater Equipment Required

The equipment required for theater television falls into two general categories: the equipment installed *in the theater* for receiving the program and projecting it to the screen, and the equipment used *outside the theater* for pickup of programs and relay to the theater.

The first problem tackled by the engineers in developing theater television was the development of equipment for installation *in the theater*. Equipment for the two systems mentioned earlier is reported to be substantially ready for commercial use.

The *direct* (or *instantaneous*) *projection system,* developed in the United States by the RCA-Fox-Warner group, consists of (1) the receiver-projector, which includes a projection cathode-ray tube as the source of the light image, and the optical system which projects the image to the screen by a reflective process; (2) a viewing screen; (3) a television-control console; and (4) a power-supply rack and high-voltage power unit.[2] If the television program is

[2] A similar direct projection system has been developed in England. See A. D. G. West, "Development of Theatre Television in England," *Journal of the Society of Motion Picture Engineers,* Vol. 51 (1948), pp. 127–168.

brought to the theater by a microwave relay system, the theater installation will also include a receiving antenna, a receiver, and a transmission line to carry the program from the antenna to the receiver.

RCA's new projector, demonstrated to the S.M.P.E. convention, April 4, 1949, utilizes a 12-inch cathode-ray picture tube enclosed in a barrel of about the size and appearance of a Bendix home washing machine. The optical system enclosed in the same barrel employs a 21-inch spherical mirror and a correcting lens, employing the Schmidt-type optical system. As installed, the picture tube faces the rear of the theater and projects the picture on the spherical mirror, which reflects it toward the screen. The picture passes through the correcting lens on its way to the screen. The picture tube operates with 80,000 volts, as compared with the 9,000 volts used in most home television receivers. The optical system is capable of projecting a screen image 18 by 24 feet, which is larger than the average motion picture screen. The entire projector unit weighs about 180 pounds and is designed for installation either suspended from the balcony or mounted on a platform in front of the theater mezzanine rather than in the regular projection booth. The "throw distance" can be varied from forty-five to eighty feet. RCA plans to manufacture pilot models before the end of 1949 for sale to theaters at a price under $25,000. The installation of microwave receiving equipment and a transmission line would cost approximately $3,500 at present prices.

The viewing screen is an important element of the direct projection system. The cathode-ray tube, which is the light source for the projection of television at this stage of development, cannot compete with the carbon arc, which is the light source in conventional motion picture projectors. Thus, while standard motion picture screens are generally not directional in distributing the light, much research has been devoted to the development of directional screens for theater television.

The Paramount *intermediate film* (or *film storage*) *system* consists of (1) television receiving equipment; (2) a specially developed recording camera, (3) rapid film-processing equipment capable of developing film in less than a minute, and (4) a conventional 35-mm. motion picture projector. If the program is received over microwave relay, receiving equipment and a transmission line must be installed.

The television receiving equipment is contained in one unit, which houses both video and audio equipment and high- and low-voltage power supplies. The receiver utilizes a 10-inch cathode-ray tube, aluminum-backed and with a flat-face screen, from which the picture is photographed. A 15-inch cathode-ray tube is provided for monitoring purposes. The special recording camera utilizes an electronic shutter rather than a mechanical one, and is synchronized at the standard film rate of twenty-four frames a second. Twenty frames after exposure of the picture, the sound track is impressed on the film. One of the amazing features of this system is the high-speed film-processing unit, into which the film passes by chute directly from the recording camera. The film is led by vertical chutes into solutions which develop, fix, and wash it, and into a compartment which dries it in a maximum period of sixty-six seconds. The processed film may be wound on reels or fed directly to the conventional 35-mm. film projector by chute. The equipment requires a room with a floor space measuring about 10 by 20 feet, which is usually placed directly above the projection booth. It has been reliably, and probably conservatively, stated that the cost of the receiver, camera, and processing unit will be approximately $35,000 plus installation. Units of this type have been installed in Paramount theaters in New York, Chicago, and Los Angeles. It is likely that the price of all three will be between $15,000 and $20,000 plus installation, when units are available in commercial quantities. The microwave receiving equipment and transmission line would cost an additional $3,500.

Theater television equipment has not yet achieved the perfec-

tion of Class A motion pictures, although engineering opinion supports the conclusion that such perfection is attainable. However, 20th Century–Fox recently advised the F.C.C. that, in its opinion, "the generation of a theater television picture of suitable quality is not only possible, but practical."[3]

The final arbiter of quality is the audience, and theater television has been received favorably by the public. There is serious danger that in waiting for technical perfection the motion picture industry may lose the opportunity to secure the radio frequencies and other transmission facilities that would make theater television possible.

IV. Distribution of Theater Television Programs

The most critical and urgent problems facing the proponents of theater television involve determination of methods and means for transmitting television programs to the exhibiting theaters. Essentially, theater television is a system of distributing programs by television. It is well known that they may be transmitted by radio relays, by coaxial cable, and by telephone wires for short distances. The opportunity to use these avenues of distribution cannot be had merely for the asking. The use of radio relays requires approval by the F.C.C. The use of coaxial cable and telephone wires requires the coöperation of the American Telephone & Telegraph Company and Bell System telephone companies. Applicants for transmission facilities for theater television must prove a demand for the facilities and must overcome strong competition for the same facilities by broadcast television networks and stations, and by other users of the same facilities.

Theater television may be carried out as an independent enter-

[3] The 20th Century–Fox report to the F.C.C. of its experimental theater television operations contained the tentative conclusion: "The quality of a television picture having a total of 525 scanning lines per frame and a horizontal resolution in excess of 600 lines, with good picture-contrast ratio, will approach that of 35-mm. professional motion picture film, provided there is good halftone reproduction, accurate line interlace, and specified minimum of geometric distortion. Such a value of horizontal resolution would require a video band pass of between 7 and 8 megacycles."

prise by one theater which provides or obtains all its own transmission facilities, or it may be carried out as a common enterprise by several local theaters sharing certain facilities. (A coöperative theater television group is described further on.) Since the capital and operating expenses of any television enterprise are substantial, it is assumed that some or all of the theaters in a city will form a coöperative group, and that this organization will be predominant in the theater television industry. The present discussion, therefore, is limited to description of theater television in cities where it will be promoted and carried on by one or more coöperative groups.

Theater television envisioning coöperative action by several theaters in a single city needs television transmission facilities for five purposes:

1) For distribution of programs from a central distributing point to groups of theaters. Such facilities may be described as "multiple addressee systems."

2) For transmission of programs from studios and regular origination points to the central distributing point. In broadcasting terminology such fixed circuits are termed "studio transmitter links."

3) For mobile remote pickup of programs and transmission to the central distributing point. In broadcasting terminology these mobile units are known as "remote pickups," and are used for the origination of programs such as sports events, parades, news events, and stage shows.

4) For transmission of programs to intercity relay points. These fixed circuits also may be classified as "studio-transmitter links."

5) For intercity relay of programs.

The use of transmission facilities by coöperative theater television groups is most easily explained by reference to figure 1, which is a diagram of a typical theater television system in two imaginary cities, City A and City B. City A is assumed to be on the A.T.&T. coaxial cable, and City B is assumed to be off the coaxial

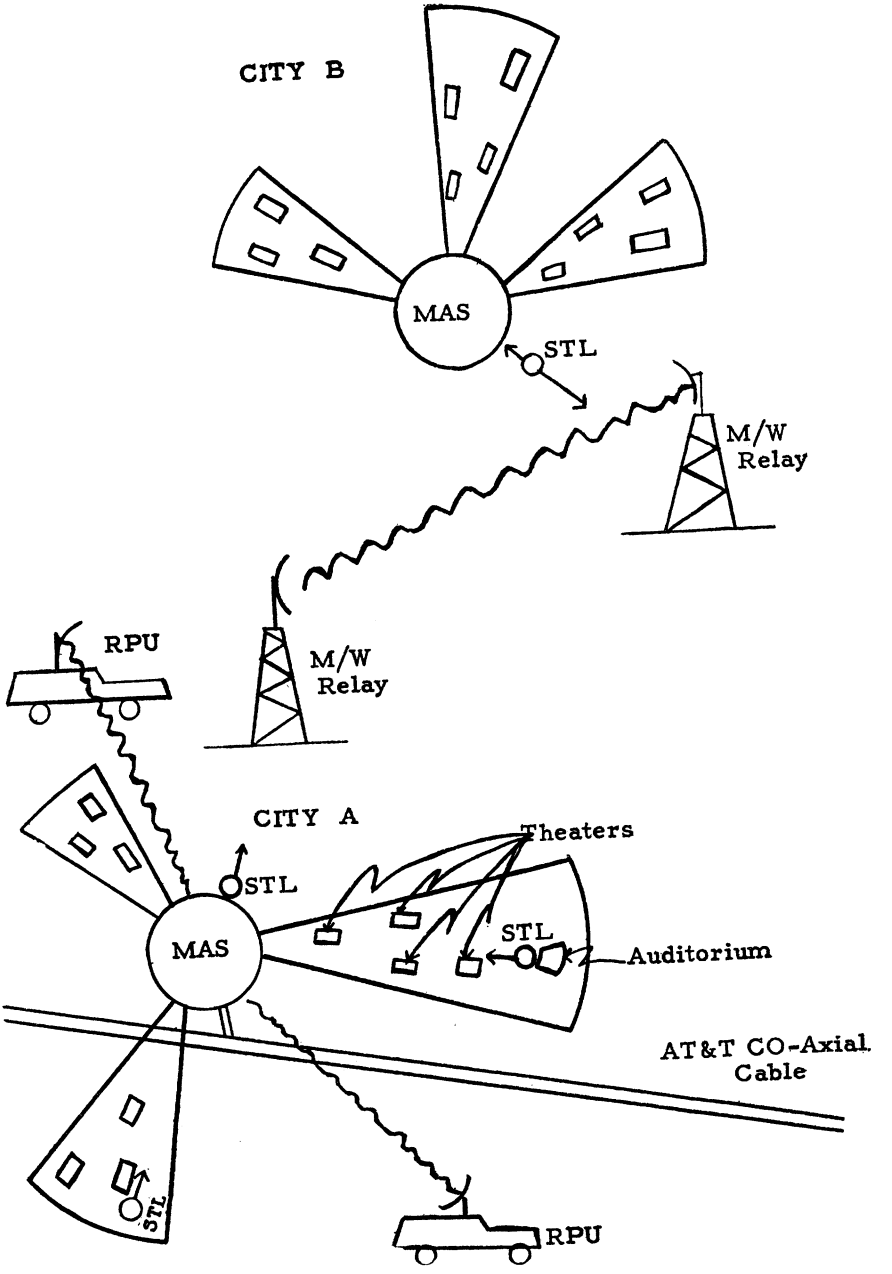
CITY B
MAS
STL
M/W
Relay
M/W
Relay
RPU
CITY A
STL
MAS
Theaters
STL
Auditorium
AT&T CO-Axial
Cable
STL
RPU

Fig. 1

cable about 35 miles east of City A. City A contains twenty-five theaters which are part of the coöperative theater television group and receive programs from it. City B contains fifteen such theaters.

In each city the key point of the theater television system is the central distributing point where the multiple addressee system is situated (in fig. 1, MAS). The coöperative group in City A maintains studio transmitter links (STL) from one studio or theater which produces a daily stage show, and from the Municipal Auditorium. It also utilizes two mobile remote pickup units, which are available for use in appropriate scenes of action throughout the area. It maintains a microwave relay transmitter (M/W Relay), which is used to transmit programs to City B on a one-way circuit. In City A a studio transmitter link (STL) connects the main distributing point with the intercity relay.

The coöperative group in City B, running a "barebones" operation and depending on City A and the theater network for substantially all programs, requires fewer transmission facilities. It must maintain a multiple addressee system (MAS) at the central distributing point, a microwave relay receiver (M/W Relay), and a studio transmitter link (STL) to connect the two points. It requires no other transmission facilities.

V. Capital Costs

What investment will be required to install the theater TV systems described above in the two cities? The price of the theater installations required in each theater has been estimated above to be approximately $25,000, irrespective of whether the direct projection or the intermediate film system is used. The following discussion endeavors to fix estimated costs of the equipment required by the coöperative group of City A.

1. *Multiple addressee system.*—The basic elements of this system are a television transmitter, associated control and power equipment, film recording and film camera equipment, and a multibeam highly directional antenna array. If live programs are to be produced locally, stu-

dio video camera equipment and studios with proper lighting must be provided. Programs would be beamed in the necessary directions to permit reception by each of the associated theaters. Three directional beams are pictured in figure 1 at City A. In the frequencies involved, a low-power video transmitter would provide satisfactory signals to cover the area in which the theaters were situated. Although no such multiple addressee television system is in operation in this country, the engineering princples underlying it are not new, and it could be designed and manufactured within a reasonably short period after order. With the exception of the directive antenna, the other equipment could be readily adapted from television broadcast equipment now in use. The directive antenna presents no exceptionally difficult problems, although it would have to be engineered for each city in accordance with the location of the participating theaters. The capital cost of such a system, excluding studio camera equipment and studios, is estimated at approximately $175,000. This includes $25,000 for instantaneous film-recording equipment and $50,000 for the directive antenna array. With studio camera equipment and studios, about $100,000 would be added to the cost. These estimates do not include expenditures for acquiring or remodeling buildings or land.

2. *Studio-transmitter links.*—The facilities necessary to connect studios with the central distributing point would be substantially the same as those used by television broadcast stations to link studio and transmitter. These connections may be made by microwave relay, coaxial cable, or by balanced telephone wires over distances from one or two miles. If studio-transmitter radio links are deemed desirable, their cost would be approximately $15,000 per installation. If coaxial cable or television wires are used, the telephone company will provide the service at regular rates, and capital costs to the theater television system will be nominal.

3. *Remote pickups.*—The two remote pickup units contemplated for City A would cost approximately $50,000 apiece. This includes two portable camera units, audio equipment, a small truck, and the video link equipment. The audio link is a telephone circuit. The video relay may be used over distances of ten to fifteen miles, but only over line-of-sight in the high frequencies. This equipment may be owned-and-operated, or it may be leased from the telephone company, or perhaps from local television broadcast stations.

4. *Intercity relays.*—The one-way intercity relay circuit from City A

to City B, contemplated in figure 1, is estimated to cost from $25,000 to $50,000. This figure includes both the transmitting and the receiving units. As described above, the relay transmitter in City A and the relay receiver in City B would be connected with the central distributing point in each city by studio-transmitter links costing approximately $15,000 each. However, given appropriate location of the relay units, coaxial cable connections might be provided by the telephone company.

On the foregoing basis, a rough estimate of the capital investment required by the coöperative theater group in City A would total approximately $445,000, consisting of: (1) multiple addressee system and associated equipment including studio equipment, $275,000; (2) three studio-transmitter links, $45,000; (3) two remote pickup units, $100,000; and (4) half of the cost of the intercity relay installation, $25,000.

The capital investment required in City B would be substantially less. The cost of the multiple addressee system, eliminating the $100,000 for studio equipment and studios that full-scale program production requires, would come to $175,000 or less. If an intermediate film-recording unit was not used in City B, this cost would be reduced by another $25,000. The studio-transmitter link and intercity relay receiver installations would add approximately $40,000. Thus, the total investment at City B would approximate from $190,000 to $215,000.

Availability of relay facilities.—Theater television programs may be relayed by microwave radio relays, coaxial cable, or balanced telephone wires. The telephone company in certain areas is already equipped to supply all three types of transmission facilities, and is supplying these services on a rental basis to certain television broadcast stations and networks. The services provided by the telephone company include intercity transmission of programs by coaxial cable or by microwave relay, and studio-transmitter links and remote pickups by cable, relay or wire. Other organizations also are equipped to provide intercity micro-

wave relay service in certain areas. The principal problems concerning the three methods of relay will be briefly described.

A.T.&T.'s coaxial cable.—By May, 1949, the A.T.&T. coaxial cable provided the primary means of transmitting television programs from New York to Richmond on the east coast (through Philadelphia, Baltimore, and Washington); from Philadelphia to Chicago (through Pittsburgh, Cleveland, and Toledo); from Cleveland to Buffalo; and from Chicago to St. Louis. By the same month, A.T.&T. also had in operation microwave radio relays for transmitting television programs from New York to Boston, Toledo to Detroit, and Chicago to Milwaukee. Before the end of 1949, A.T.&T. plans to complete network links (either coaxial cable or radio relay) from Boston to Providence; New York to Syracuse (through Schenectady and Utica); Buffalo to Rochester; Milwaukee to Madison; Philadelphia to Wilmington; and from Toledo south to Dayton, Cincinnati, and Columbus. Likewise, in 1949 a radio relay between San Francisco and Los Angeles is planned.

At present the Bell System does not contemplate extending its television relay facilities across the continent in the near future. Nevertheless, the means for a transcontinent television network exist, since the coaxial cable, equipped for long-distance telephone service, has been completed between St. Louis and Los Angeles. Telephone company officials have recently stated that a television channel from New York to Los Angeles could be made ready in about a year from the time the service should be ordered.

The Bell System coaxial cable, first authorized by the F.C.C. in 1936 on an experimental basis,[4] is primarily used for multiplex telephone transmission. Four hundred and eighty telephone conversations can be transmitted simultaneously on a single channel of each eight-channel cable without mutual interference. The relay and terminal equipment installed was originally designed for this purpose. However, it was recognized from the first that the

[4] See 2 F.C.C. 308.

band width of each cable channel was sufficient to permit television transmission. New terminal equipment must be installed to convert the cable for television transmissions. The equipment now used on the coaxial cable for television transmission will permit transmission of a television band of 2.7 megacycles. This is not sufficient to carry the full requirements of the present 525-line, 4.5-megacycle, standard television broadcasts, but recent developmental work will make possible wider-band television transmission (up to 8 megacycles) when the demand arises. Current theater television has adopted the 525-line standard used by television broadcast stations, but full utilization of the possibilities of theater television may require the use of higher definition and wider band transmissions, which would raise the problem of the suitability of the coaxial cable for intercity transmission of theater television. No extensive intracity coaxial cable system is now available, but some links are in operation in New York and other cities.

The current coaxial cable television rates filed by the A.T.&T. and associated Bell System telephone companies and effective May 1, 1948, contemplate charges which raise a serious economic question both for television broadcast stations and for theater television. A single television channel between two cities costs the user $35 a month per airline mile for eight consecutive hours each day, and $2 a month per mile for each additional consecutive hour. Thus, for 240 hours of service in one month the rate would be $35 per airline mile. For occasional or part-time service the rate is $1 per airline mile for the first hour and 25 cents per mile for each additional consecutive fifteen minutes. Additional charges are made for the use of terminal equipment. A charge of $500 a month is made for a connection to the television network for eight consecutive hours daily. The interconnection charge for occasional service is $200 monthly, plus $10 for each hour of use. To complete the service, a Bell System sound channel must be used, at the regular rates applicable to FM service. If two users share time on the same channel, $25 a month per airline mile is charged

TABLE 1

Monthly service

Service points	Video allocated (4 hours)	Audio	Total	Video nonallocated (8 hours)	Audio	Total
Boston–New York	$ 5,450	$ 1,290	$ 6,740	$ 7,650	$ 1,290	$ 8,940
New York–Philadelphia	2,775	648	3,423	3,905	648	4,553
Philadelphia–Baltimore	2,950	690	3,640	4,150	690	4,840
Baltimore–Washington	1,600	366	1,966	2,260	366	2,626
Washington–Richmond	3,150	738	3,888	4,430	738	5,168
Richmond–Charlotte	6,900	1,638	8,538	9,680	1,638	11,318
New York–Pittsburgh	8,500	2,022	10,522	11,920	2,022	13,942
Pittsburgh–Cleveland	3,550	834	4,384	4,990	834	5,824
Cleveland–Detroit	2,975	696	3,671	4,185	696	4,881
Detroit–Chicago	6,600	1,566	8,166	9,260	1,566	10,826
Chicago–Milwaukee	2,725	636	3,361	3,835	636	4,471
Chicago–St. Louis	7,450	1,770	9,220	10,450	1,770	12,220
St. Louis–Kansas City	6,575	1,560	8,135	9,225	1,560	10,785
New York–Los Angeles	61,650	14,778	76,428	86,330	14,778	101,108

Occasional Service

Service points	First hour in month			Each additional hour in month		
	Video	Audio	Total	Video	Audio	Total
Boston–New York	$ 610	$ 72.00	$ 682.00	$ 210	$ 32.00	$ 242.00
New York–Philadelphia	503	55.95	558.95	103	15.95	118.95
Philadelphia–Baltimore	510	57.00	567.00	110	17.00	127.00
Baltimore–Washington	456	48.90	504.90	56	8.90	64.90
Washington–Richmond	518	58.20	576.20	118	18.20	136.20
Richmond–Charlotte	668	80.70	748.70	268	40.70	308.70
New York–Pittsburgh	732	90.30	822.30	332	50.30	382.30
Pittsburgh–Cleveland	534	60.60	594.60	134	20.60	154.60
Cleveland–Detroit	511	57.15	568.15	111	17.15	128.15
Detroit–Chicago	656	78.90	734.90	256	38.90	294.90
Chicago–Milwaukee	501	55.65	556.65	101	15.65	116.65
Chicago–St. Louis	690	84.00	774.00	290	44.00	334.00
St. Louis–Kansas City	655	78.75	733.75	255	38.75	293.75
New York–Los Angeles	2,858	409.20	3,267.20	2,458	369.20	2,827.20

for four consecutive hours of daily service, with an interconnection charge of $350 for each user. Table 1 gives these charges for the service between certain principal cities. These same charges apply to intercity relay of television programs over microwave relay facilities.

Returning to our typical theater television operation in Cities A and B, and assuming that City A on the coaxial cable is eighty-nine miles from the nearest network city, and that City B is thirty-five miles from City A,[5] the monthly charges for use of Bell System facilities for receiving television programs would be as follows: City A would pay a monthly charge of $4,840 for the use of 240 hours at the rate of eight hours a day, or $3,640 for 120 hours used at the rate of four hours a day, if the channel were shared with another theater television group or a television broadcast station in City A. If the theater television group in City B utilized a Bell System microwave relay system to obtain programs from City A, it would pay $2,626 monthly for the use of 240 hours at the rate of eight hours a day, or $1,966 for the shared use of the channel four hours a day.

Concern over the economic problems raised by the A.T.&T. coaxial cable rates led the Television Broadcasters Association to file a petition with the F.C.C. requesting suspension of the rates. A hearing on the reasonableness of the rates has been postponed indefinitely.

Meanwhile, in the same proceeding (Docket 8963) the F.C.C. has taken evidence and is considering one of the issues which also is of concern to theater television. This issue involves the validity of the provision in the A.T.&T. tariff that a customer may not connect *intercity* channels of the telephone company with *intercity* channels of others except where the telephone company cannot make facilities available upon reasonable notice.[6] If sustained

[5] The airline distance from Philadelphia to Baltimore is about 89 miles; from Baltimore to Washington, D.C., about 35 miles.

[6] By A.T.&T. tariff filings made on January 14, 1949, effective March 1, 1949, this restriction on interconnection was relaxed somewhat. For example, if the customer orders

by the FCC, this provision would preclude the use of *intercity* radio relay facilities built by theater television groups, such as the radio relay contemplated in figure 1 between City A and City B. It would also limit the use that theater television might make of the radio relay facilities offered on a common carrier basis by Western Union.

The substantial capital costs of constructing intercity coaxial cable installations, together with other difficulties, appear to make it improbable that theater television will undertake to construct its own intercity coaxial cable to provide a national theater television service. According to A.T.&T.'s own figures, submitted to the FCC, by the end of 1949, about 4600 miles of intercity television channels had been put into operation at a cost of approximately $20,000,000. These figures include the A.T.&T.'s intercity radio relay circuits described hereafter.

Intercity radio relay services.—The second method available today for intercity relay of television programs is afforded by microwave radio relays. Radio relays constructed by A.T.&T. extend the coaxial cable system from New York to Boston, from Toledo to Detroit, and from Chicago to Milwaukee. A.T.&T. has a radio relay under construction between New York and Chicago, and has applied for F.C.C. consent to construction of radio relays between San Francisco and Los Angeles. In addition, Western Union has a radio relay system available for use between New York and Philadelphia, and contemplates an extension of its system to the Midwest and South. These radio relays are operated on a "common carrier" basis and are open to use by television broadcasters under tariff schedules filed with the F.C.C. The

service for a period longer than three months, in an area where the telephone company has no interexchange channel facilities, the customer must give the telephone company twelve months' notice. But he will be informed within three months whether it will have facilities between the service points within a year. If such facilities will not be available, the customer may connect his facilities with those of the telephone company until three years from the service date, and he may continue to connect thereafter until the telephone company has facilities, subject to three months' notice from the telephone company. However, the FCC has suspended this tariff provision pending its consideration of the restriction on interconnection.

A.T.&T. rates are the same as those in effect for coaxial cable intercity service. The Western Union rates are somewhat different. Other privately owned and operated radio relays are in operation in various localities.

The A.T.&T. intercity radio relays operate on the frequency band 3,700 to 4,200 megacycles, and the Western Union relays operate on 5,925 to 6,425 megacycles. Both these bands are allocated by the F.C.C. to "common carrier fixed circuits." The A.T.&T. relays provide a band width of 3 megacycles; the Western Union New York to Philadelphia relay is equipped to provide a 5-megacycle band width. Intercity television relays are based on line-of-sight transmissions from station to station, with intermediate stations separated by about thirty miles between cities. The problems involved in theater television's using intercity relays are substantially the same as those stated above in relation to using the coaxial cable.

Bell System telephone wires.—The third available system for transmitting television programs is the use of so-called "balanced" telephone wires. A network of such telephone wires extends under the streets of our cities, and across the continent balanced wires are operated by the Bell System telephone companies. Over moderate distances, of from one to two miles, these telephone wires may be adapted to the purpose of television transmission. They are thus useful for intracity transmission, including remote pickup, STL, and possibly as the basis for a multiple addressee system. Telephone wires may also prove the most economical method for distributing theater television sound.

(To be continued)

You and Television

LYMAN BRYSON and EDWARD R. MURROW

LYMAN BRYSON, educator and CBS counselor on public affairs, was joined by EDWARD R. MURROW, CBS news analyst and commentator, in discussing television on CBS's regular fifteen-minute series (6:15 E.S.T.) devoted to topics of popular interest. Edited excerpts from the ediphone script of the discussion appear below.

BRYSON: Some of my colleagues in the educational world have asked me recently: What are you going to do with television? What are you going to do to make the world a more enlightened and pleasant and intelligent place with this new weapon? If you accept my theory, Ed, that news is one of the most important branches of education—and you do, I believe . . .

MURROW: Yes, enthusiastically, Lyman.

BRYSON: Then, let's start out with what television is going to do to news coverage.

MURROW: Well, I have strong opinions on television and news. It seems to me that finding either pictorial or animated material to support or sustain the news broadcast is emphasized at the expense of sound news judgment and therefore that television is in some danger of failing to present the news fully and in perspective.

BRYSON: Do you mean that the pictorial devices used to maintain interest will distort the meaning of the news, or that news is more effectively broadcast without the distraction of visual material, or do you mean both?

MURROW: I mean both. For example, several times at the Philadelphia conventions of 1948 the television camera suddenly focused on a weary delegate who was sitting there with his mouth open, sound asleep, while a speech was being made. This certainly detracted at least somewhat from the impact of the speech, and although it may not have been deliberate, it was certainly an editorial distortion.

BRYSON: Does this mean, then, that the cameraman suddenly enters the news field as a commentator and an analyst, in effect?

MURROW: Well, I think the cameramen must learn news values, and the newsmen, on the other hand, must learn something about pictorial values. How this is to be brought about I don't know, but I am convinced that it is necessary. Basically, however, the news must come first and pictorial support second. I believe in pictures, but they should not be allowed either to dominate or to distort the news content.

BRYSON: You don't expect much help from pictures, then, in trying to tell people what the news means?

MURROW: Oh, yes; certainly. There are whole vast areas of news that cannot be covered effectively in sound broadcasting alone. For example, I doubt that anyone can make a national budget understandable or meaningful through a microphone. I think that with the proper charts and graphs it could be made more meaningful in television. In spot news and eyewitness reports also, certainly, television pictures are a tremendous advantage.

BRYSON: What about television's effect upon politics in general, upon political destinies? Are persons who aren't "telegenic" going to be handicapped politically? You remember when we started saying that no one could be President of the United States again unless he had a good baritone voice.

MURROW: Well, we were wrong there, it seems. I would think, Lyman, that television is not going to change political fortunes, political oratory, or voting very much, although there are many who say that it will. I am not certain that the individual voter will make a better appraisal of a candidate just because he has an opportunity to see him, nor do I believe that the individual viewer will be wiser or better informed just because his eyesight, his vision, is extended so that he can see things the breadth of the country. . . . But you are especially interested in the educational

impact of new techniques. What do you think the educational impact of television will be?

BRYSON: I can be a little more optimistic about television in the classroom than you are about its effect upon politics and upon news, Ed. I should think that it is one more device that a good teacher can use to change the pace of the classroom, to interest the students, because, after all, kids that are tied to seats—and they are, more or less, even in the most advanced schools—like something that gives them a new way of getting at information. But television won't make good teachers out of bad, any more than it will make good politicians out of bad, or statesmen out of politicians. It will be subject to exactly the same difficulties that you indicated in talking about news. You can distract a child from the meaning of a lesson by giving him a picture that isn't really relevant to what the lesson is supposed to teach him. I wish I could feel confident that we shall not fumble adult education in television as we have by and large in the other great media of mass communication. One would like to look forward, Ed, to an enlightened and informed American people who had only to sit in their own living rooms and turn on the radio and the television machine and understand the world in which they live!

MURROW: What is going to happen to group relations? Are we all going to sit at home and look at receivers?

BRYSON: I think we will use television as we learned to use radio—as one more extension of our senses. We'll use it to get entertainment. We'll use it to find out what's going on. We'll use it in education, in politics, and for news reporting. But there is a basic problem here that I'd like to ask you about. You know perfectly well that as a reporter you can select a fact which is unquestionably a fact, and you can state it as a fact, and you can completely distort and misrepresent a situation. But with pictures you can do it far more effectively than you can with words; that is, you can completely deceive people about what actually happened or about

a condition by publishing a picture that is a camera picture, and you can say, "This is what happened," and it isn't what happened at all. There is no illusion like the illusion that, being an eyewitness, you know everything that happened. Now, do you think there is even more danger of manipulation of the stream of information than there has been?

MURROW: I don't know. I should think that as the power of a medium increases, its possibilities of distortion increase, and that the possibility of distortion in both pictures and the spoken content will have to be watched very carefully in television. But I don't know the relative dangers, Lyman.

BRYSON: Well, isn't it true that the more tools we have, the more possibilities there are for us to misuse them and the easier it is to do so? With television, we have a more delicate and complex tool than we have had before—and therefore a more dangerous one.

MURROW: Unquestionably.

BRYSON: Surely, you have never believed that the microphone in front of you had any wisdom of its own . . .

MURROW: No, I've maintained all along that a speaker whose voice reaches from one end of the country to the other is no wiser or more prescient than he was when his voice would carry only across the living room or from one end of a bar to the other.

BRYSON: It seems to me that at a time like this, when television is beginning to take its place alongside the other great media of mass communication, we have to remind ourselves that wisdom and nonsense are found in human beings and not in the machines that they use.

Television: A New Idiom

FLORA RHETA SCHREIBER

FLORA RHETA SCHREIBER directed a summer workshop in radio and television, entitled Television: A New Idiom, in the Center of Creative Arts at Adelphi College. The procedure of the workshop was to evaluate the students' ideas about television with the assistance of a panel of critics, writers, and producers. Miss Schreiber's critical articles on radio and television have appeared in a number of journals, including the *Hollywood Quarterly*.

THIS IS a letter rather than an article, for an article, in some measure at least, implies that the writer has made judgments. A letter, on the other hand, carries with it the informality of impressions. Frankly, at this stage of television's development and of my necessarily limited contact with it, I prefer to record impressions rather than judgments.

The impression, of course, depends on what one is seeking. I am seeking an idiom that belongs peculiarly and uniquely to television. I am not interested in a program that is illustrated radio, or miniature movies, or a photographed stage play. Television must have its own unique personality if it is to justify its existence creatively. It must be an entity, distinct and incorruptible.

Looking for this idiom just now is rather like asking a child to write *Hamlet*. The child is too busy cutting teeth to be interested. So, too, the industry is too busy with the labors of its early childhood to be concerned with its own artistic identity.

Yet, even though the child is unaware of the process, his uniqueness is evolving even while he cries out only because of the pain in his gums. And so, too, the blueprint of television's future is even now imperceptibly present.

An idiom that is unique implies a synthesis, of course. Though television cannot be radio, or films, or theater, it does assume some of the character of each of these media. But it must also go beyond, re-creating radio, films, and theater in its own image.

Television is more like movies than like any of the other media. But in one very essential way it differs markedly: movies are

geared for a mass audience, and television, like radio, is designed for an audience of ONE. It follows, therefore, that there are subjects more suited to movies than to video, and vice versa. As an illustration of suitability or the lack of it I should like to cite Studio One's *Battleship Bismarck,* written by Maurice Valency, directed by Paul Nickell. This play was superior television because it was adult, literate, and in a restricted way imaginative. But essentially one felt the limitation placed on an imaginative expression by the medium. To stage a battle at sea is a big assignment for video. Nickell was courageous to make the attempt, but the sea never became anything but a restricted sea. The epic quality that the subject demanded was lost. Yet Nickell, by way of compensation, wisely stressed subjective values, though not sufficiently. Here, too, the execution called for a more searching expressiveness. Valency's portrait of Schneider, the recalcitrant and idealistic member of the crew, was full of revealing poignancy, but the poignancy was fleeting, unsustained because of the generally cramped effect of the production.

Movies can achieve ubiquity, broad effects in space; small-screen, home television is more dependent on the old classic unities. Movies can be epic in scale; television achieves more naturally the lyric. Movies have played on the fantasy life of audiences en masse; television invades the fantasy life of the individual when he is alone.

The fact that the video audience is an audience of ONE has its effect not only on subject matter, but on techniques. The TV screen should be thought of as a very personal revealing mirror or window. Looking through this window, you see part rather than the whole, and the part becomes the reference point around which the viewer's imagination can focus and go to work. This should lead naturally to a technique which is by definition impressionistic.

The lavish montage of Hollywood is impossible in video, but the poetic montage described by Pudovkin is definitely feasible.

It is, however, as yet untried. The kind of symbolism so far used has been merely on the Hitchcock level of twiddling a gun as a symbol of an obvious danger.

It has been recognized that intimacy and immediacy form the foundation on which good TV scripts are based, for where immediacy and intimacy have been lacking, there has been accompanying failure.

Lack of intimacy was effectively illustrated in an Amherst College production of Shakespeare's *Julius Caesar* on NBC-TV. The intention was to present the play in its true Elizabethan habitat. The camera panned around the audience at the Folger Shakespeare Library and then around the stage. This framework made for remoteness. The effect was that of watching the audience watch a play that was far away. This technique made passive viewers of the television audience and unreal characters of the actors. Just as radio in its early days merely broadcast a stage play, this production merely photographed one.

In Worthington Miner's production of *Julius Caesar,* on the other hand, the conventional walls of the playhouse were swept away and the viewer was taken directly on the stage, directly into the story. This production was in modern dress, but there was no attempt to tamper with the poetry. The producers showed an extraordinary sense of compositional values, of building a screen picture. The crowd scene stands out with particular vividness. There was Mark Antony talking in praise of the dead Caesar. The crowd, having just heard Brutus, was restless and only half listened. Gradually Antony won them, and the audience saw them turning, saw their altered attitudes in their altered stance. Then he moved them and incited them to action. The detail was wonderful: Antony became a distant figure as the crowd became more and more important. In the foreground was a young girl weeping. Antony's speech found its true eloquence in the face of the weeping girl. Another dramatic juxtaposition of a speech and a visual image came at the end. "This was the noblest Roman of them all,"

Mark Antony began, standing beside Caesar's corpse. "All the conspirators save only he did that they did in envy of great Caesar; he only, in a general honest thought and common good to all, made one of them. His life was gentle, and the elements so mix'd in him that Nature might stand up and say to all the world, 'This was a man!' " And just at that moment, at the moment of "This was a man," a guard kicked the noble Brutus down the steps. The dramatic force of the kick, achieved by its juxtaposition to the noble words, was reminiscent in its intensity of that famous scene in Eisenstein's *Potemkin* in which the baby carriage cruelly and mercilessly races down the Odessa steps. There was another memorable effect: Brutus haunted by thoughts of the murdered Caesar, and Caesar, his mutilated chest exposed, walking across Brutus' face, the two images fusing and dissolving together. In short, this production was television, not theater, and it proved television drama capable of adding intimacy to violence and intimacy to sorrow. This may well prove to be television's particular recipe for the distillation of emotion. It may well prove itself an important element in television's evolving idiom.

Wyllis Cooper has developed a number of interesting techniques for utilizing the television medium in terms of its special potentialities. Cooper's direction of his admirable series *Volume One* might be called an experiment in intimacy. Recognizing that the screen can function as a mirror, Cooper made his characters use the mirror directly as a property. A girl looks in the mirror and puts lipstick on. A man stands before the mirror, adjusting his tie. You might be watching people in the apartment across the street. Or the effect can be less casual, more violent, when a man throws a gun at the mirror and the viewer recoils in physical fright—for the glass has apparently been smashed and the pieces appear to be heading for the viewer's face. This is intimacy becoming actual identification.

Cooper is fond of keeping his camera nailed to the ground and immobile, bringing his characters into the scene, coming toward

the camera, right up, in effect, to the eye of the viewer. Again identification is intensified.

Some video directions taken directly from a Cooper script may be illuminating in terms of his technique:

Floyd grimaces into the mirror, and Georgie saunters up behind him, takes the cigarette from her lips and offers it to him. He sees it in the mirror, looks down at it, then turns and slaps it out of her hand in a rage. Georgie, in turn, smacks him hard across the face with her open hand. He reaches out, grabs her by the arm, and pulls her to him roughly. With his left hand he reaches up and removes her glasses, which he places on the dresser. Georgie cringes, and he knocks her to the floor, out of the scene.

Note the effect of staging this scene of violence as reflected in a mirror used simultaneously as a property and as the viewer's sense of reflected reality. The directions continue:

As he stands over her, looking down and breathing hard, the light from the opening door falls across the B.G. He notices it after a second, and automatically reaches for her glasses; as she gets to her feet, he hands them to her. She puts the glasses on, wipes away a trickle of blood from her face, and looks toward the door. The light source shows the shadow of the bellhop across the floor, and he comes in, smiling.

Notice here how the entrance of the bellhop, a sinister character in the script, is built first through the reflection of light and then, more directly, through the approaching shadow. Since the audience has already been oriented in terms of the mirror, light and shadow also continue to appear as reflected realities.

The sinister bellhop walks over to the mirror, looks into it, straightens his jacket, and says, "You're being watched, you know."

And the viewer does know. Hasn't the viewer also been watching? "You're being watched" is a line motivated in the plot and underscored in motivation by the identification of the audience. Or the viewer might take it in the opposite way. "You're being watched," spoken into the mirror, may also convert the viewer into the "you" being watched.

As the play closes, the bellhop waves "good-bye" to Floyd and Georgie. The direction reads:

> As he comes up full, he reaches out, closes a door right in our faces: a door we haven't seen before. As it closes, the music and the siren and all is shut out. He locks the door, looks into the camera, and smiles slightly. "You see?" he asks. He throws the key away, and as he moves out of the scene we hear Georgie and Floyd hammering on the door. The theme music comes up and drowns out the sound.

To have a character close a door on a play is a more intimate and personal effect than fading out could ever be. It is part of a subjective approach.

On the revue and variety level, too, there has been an acknowledgment of the need for the intimate technique. The *Chesterfield Show* has a script which is insignificant, but it also has ease, builds gradually, and its performers are amiable. Its producers have found a way of presenting music effortlessly, in a manner appropriate to video.

Again, in *Garroway at Large* we find the informal, easy approach. Dave Garroway is a six-footer with a gentle face. He wears horn-rimmed glasses and keeps his hands in his tuxedo pockets while he chats affably with the viewer. He is almost intense about being casual, and his style dominates the tempo of the entire show. It is a style which is a deliberate denial of rambunctiousness. He makes whimsical comment on the performance and gradually involves himself in the action of the play. He functions as a Greek chorus or a Shakespearean fool, but his manner is strictly for television. The program in which he finds himself also has style, showing a sense of compositional values, for effective lighting, for visual motifs used provocatively—the skeleton in the background, a veiled girl dancing, a pumpkin face as a Halloween motif, an Avon Long sequence with an imaginative use of a receding image and silhouette effects.

Arthur Godfrey has also found the key to intimacy, the right rapport and the personal style.

Ed Wynn, the perfect fool, has newly entered the fold and also seems able to translate his style into terms of greater intimacy. His material remains unchanged. If you liked it, you still like it; if you didn't, you don't. But the technique is distinctly better in TV. He directs his sallies not to an imagined gallery, but to the one viewer at home.

There are hopeful portents.

1) Radio audiences have seldom rated quality shows high, but television audiences are discriminating. So far, the TV programs which have achieved highest ratings are also highest in quality. Whatever the reason for the difference, the difference is important. The optimistic interpretation is that audiences, tired of tired radio, are looking for energetic television. The cynical interpretation is that, by definition, the television audience is small and therefore selective. The weakness of this interpretation, of course, is that it is based on the assumption that those who can afford television sets have better taste than those who can't afford them. Or perhaps the fact that there are more television sets in sophisticated urban areas than in rural areas has something to do with it. At any rate, if TV audiences continue to rate quality high, there is hope for TV's future.

2) Television drama has thus far been blessedly free from radio's supertaboos which have long kept the radio writer in emotional bankruptcy. Joseph Liss, who has been writing quality radio for years, found that he could luxuriate in a new-found freedom in adapting Millan Brand's *The Outward Room,* or F. Scott Fitzgerald's *The Last Tycoon,* or his own *Time Is a Kind Friend* for television. No longer were adultery, suicide, sexual love before marriage, or homosexuality, inadmissible. If they were part of the original work, they could remain as part of the television adaptation. This frank treatment of subjects verboten in radio was also evident in scripts like *The Light That Failed* and *Dr. Jekyll and Mr. Hyde.* This condition may, of course, be only temporary, an indication merely of the fact that the industry has not yet formu-

lated and enunciated its taboos. In the interest of TV's maturity, may the temporary condition become a permanent one!

3) The television writer has freedom of another sort, too—the freedom for fuller development of characters, the freedom from being bogged down by the need of putting exposition into words. (I am making the comparison here with radio writing.)

4) TV adaptations have included high-ranking works such as Hawthorne's *The Scarlet Letter* and *The House of the Seven Gables,* F. Scott Fitzgerald's *The Last Tycoon,* and *The Dybbuk.* Some of the works in progress are perhaps even more impressive: Dostoevsky's *The Idiot,* Pirandello's *"Henry IV,"* Kafka's *The Trial.*

5) *"Henry IV"* and *The Trial* are particularly interesting choices. Both works are based on a subjective dream image, and the projection of that kind of image may well prove to be peculiarly the province of television drama, for fantasy is natural to television, fantasy which mirrors the ideas, wishes, and dreams of the one viewer at home, fantasy which is, of course, more than childish make-believe or clever camera tricks. TV needs thinking in terms of fantasy, not merely tinkering with the medium as if it were a toy.

Fantasy was tried successfully by NBC-TV in *Miranda* and in *Merhenthwirker's Lobblies.* The fantasy was successful precisely because the producers realized that to create a believable fantasy it is imperative to use a realistic frame, that the audience must be tricked, or rather seduced, into what Coleridge called "a willing suspension of disbelief." Wyllis Cooper used fantasy successfully as an effect in an otherwise realistic drama—a perfectly valid approach. Fantasy was unsuccessful in a script about the last war produced within a month of the bombing of Nagasaki. It failed because the personified animals used in the script were disturbing visually. The script might have been effective radio, but visualization prevented the "suspension of disbelief."

If television is a medium for fantasy, it is also one for the ex-

treme of naturalism, for television offers new possibilities in documentary or actuality broadcasting. Not much has been done along these lines so far, but some documentary elements are evident. NBC's *Big Story,* a newspaper series, can be classified as a semi-documentary. CBS's *Front Page,* based on the Charles MacArthur–Ben Hecht play, features John Daly, the news commentator, as a member of the cast and takes cognizance of the documentary method of letting living people play themselves. ABC has been presenting Eisenhower's *Crusade in Europe* on film. More significant than any of these is NBC's *City at Midnight,* shot on location, documenting New York City life. And significant, too, is the Ford Motor Company's decision to sponsor fifteen hours a week of United Nations TV coverage, showing the meetings, interviews with delegates, and the like. These documentary attempts are primitive and there is as yet little realization of the potentialities of the form, and of the necessity that the camermen be creative.

The documentary technique can also be applied to fictional drama. The viewer can be an eyewitness to an event, and whether the event is a political convention being televised for journalistic reasons or a street scene especially selected by the producer of a television play to fit his dramatic purposes, the techniques and effects can have much in common. There is no reason why television drama should not sometimes consist of real scenes taking place in real places.

Another area in which television may develop uniqueness is the lyric theater. The Texaco broadcast of Verdi's *Otello* was orthodox and dull. NBC's *La Bohème* showed more promise. But the real clue to the future direction for the televising of opera came in the performance of Gian-Carlo Menotti's *The Medium.* It was an imaginative use of the television screen, with close-ups used tellingly for psychological effect, with faces registering emotion while unseen voices sang. Menotti's *The Old Maid* and *The Thief* were also successfully produced. And now the composer-librettist-director is at work on an opera commissioned by NBC

especially for television. One can look forward to the time when broadcasters will form their own opera companies, as in the past they have formed their own symphony orchestras.

Video should not rely on the standard repertory, but should hunt in its out-of-use files for worthy operas, both past and present, whose small casts and production requirements make them accessible to television. The new intimacy television offers can be used effectively to take the sanctimoniousness out of opera, to humanize it and heighten its inner dramatic meanings. Basic to opera are people singing about their emotions. This fact need not be treated as an artificial convention. It should rather be treated as an emotional necessity, a necessity called into play by an overflow of powerful feeling and here made plausible by the fact that the experience between audience and singer in television is an intimate and private one.

Daring experiment in this form is essential. One possible experiment I have in mind would attempt to create emotion solely through the singing voice reinforced with visual abstractions. The audience would hear the singer without seeing him, seeing instead an artist's interpretation on the screen. This would mean an altogether new integration of the musico-dramatic arts with the graphic arts.

Turning from the primary creation, which is the idea and the script, to the secondary creation, which is the performance, we find many seeking an answer to the question, "What is a telegenic personality?" To the tune of rattling cups and saucers, of running soda faucets, at the counters of Kaufman and Bedrick, of Colbee, the soft-drink fountains where entertainment folk congregate in New York, the same question is asked. And in the answers to the question there is a measure of agreement.

The actor needs an intimate and candid manner and a capacity of projecting himself out of a mechanical medium. The answer to what a television personality is seems to be found in an actress like Margaret Phillips, a small, wistful girl who was able to prove

vivid even as the colorless girl in *The Late George Apley*. The answer seems also to be in Kyl MacDonnell, the mezzo soprano who was far more sensational in NBC-TV's *For Your Pleasure* than in *Make Mine Manhattan* on Broadway. The answer seems also to be found in Helen Parish, who emcees *House of Glass*. Here we have an actress, a singer, and a straight personality with the video touch—what you might describe as a "living room" quality, the gift of stepping into anyone's living room as an unobtrusive yet compelling guest. The stage, radio, and particularly movies may want flashy personalities, but television seems definitely committed to ingenuous charm and the "clean American look."

The "clean American look" description, one that has been given me by several directors independently, is somewhat disturbing. One senses the beginnings of a new stereotype from which is excluded, almost by definition, a face that reflects conflict, strain, exoticism, indeed all human emotions that are not suggested by this catch phrase. One can draw a parallel with scripts that have succeeded primarily because of their middle-class living room appeal. "Middle-class living room appeal" is a limiting touchstone for both the writing of the scripts and the performing of the acting roles.

And so ends my letter. I hope that some of these wild and whirling speculations become sober realities in time. Television has the potentiality of becoming a new art form; but we must all be vigilant to save it from falling a prey to extra-artistic considerations, which can ruin it. Perhaps the optimism I have here shown is based more on potentialities than on the actual *modus vivendi* of the trade. But the potential promise is no less real thereby. The fact remains that on occasion, at least, there have already been concrete expressions of that promise.

Education for Television Jobs

GORDON MINTER

GORDON MINTER, formerly chairman of the Department of Drama at the University of Texas, is Staff Director of television station KTLA in Los Angeles.

TELEVISION, it would seem, is inherently glamorous. Even though it is known as a "scramble" profession—a scramble to get in, a scramble to stay in,—many are attracted to its unknown problems. On all sides there are seekers after training that will usher them into this new profession.

We all assume that the universities and colleges will be expected to supply workers for television, and this may well be true. Old workers do die off, some of those now working in television will prove not to have made a successful transition from other fields, and the field is rapidly expanding. On the other hand, the assumption may rise from wishful thinking. Schools of journalism sought to supply workers for the newspaper field long before professional newspapermen recognized any value in university training. There was a time, in fact, when the editor shunned the university-trained journalist. American education may have a weakness for attempting—too quickly—to teach the applied aspects of a science or an art. Although there is a definite place for trade-school training, it should not be confused with university training. Skill in television cannot be gained in ten easy lessons; but it can be nurtured.

One of the problems facing a university that attempts to provide television training is finding qualified personnel to give the instruction. With the rapid development of television, it seems likely that the experienced worker can remain employed for some time to come at a salary at least equal to that paid by most universities. Yet "show business," of which television seems inevitably a part, has a strong preference for newcomers trained by its own professionals. Nevertheless, the demand for training is bound to

be so great that the university must make some attempt to fulfill it. Let us, then, consider what jobs are to be filled in television, what preparation leads to skill in these jobs, and at what points the university curriculum should be changed, adapted, or augmented to accommodate preparation for such jobs.

When television swings into its promised full-time operation, its jobs will be both numerous and varied. The skills that these jobs require are—fortunately, from the point of view of the universities—largely transferable to and from related fields. Well-trained personnel in many of the classifications could be employed as well in the theater, motion pictures, or radio, all of which have been successfully taught in colleges and universities for some time. Unfortunately, laboratories for television represent a much greater expenditure than is required for any of the other fields, and the cost of upkeep would be enough to make regents turn gray had present-day university problems not already aged them rapidly.

The very listing of the kinds of craftsmen and artists necessary for television indicates the futility of trying to describe desirable training for each of them here. However, from such a list the need for certain specific kinds of background training would seem obvious. The following can be assigned for basic background training to the theater, motion picture, radio, or other university departments: actors, singers, writers, scene designers, costume designers and make-up artists, stagehands, property men, electricians, cameramen, soundmen, newsmen, engineers, film technicians and film editors, and announcers.

Obviously, the university will not teach the variety artist, the tap dancer, and many other specialized performers. But with the virtual disappearance of vaudeville and stock companies there remains little training ground for the theater arts except the universities and colleges. Certainly it is difficult to gain practical experience in motion pictures, for example, but the skills basic to production can easily be taught in the university.

There is one job in television that merits special consideration; it is probably the one on which the universities should concentrate—that of the producer-director. He alone is responsible for the adaptation and blending of multiple skills into the new medium. He will shape the future development of television.

Should we assume that potential producer-directors have already developed skill in directing and producing in other fields, that they have already acquired the basic elements of showmanship? If they are creative and already familiar with theatrical problems, can we give them the training necessary to being effective in television?

Let us look at the types of programs with which they will have to deal. First, there are the programs that are written, or at least thought out, in advance. These are the dramatic shows, the operas, the musical shows, the newscasts, the educational programs, and the quiz programs, among others. The producer of such programs should have thorough training in the basic skills required for each, and then additional training in the mechanics and methods of television, necessarily including a knowledge of pictorial composition, communication, and the sociology of news, along with professional knowledge from the theater, motion pictures, and radio.

The second type of program, the unrehearsed program of sports or special events, presents a different problem. Here the imagination, skill, and precision of the director will be most utilized. Here, the great advantages of television, immediacy and close-up coverage, may be exploited. The producer and director must be able to draw from a mass of experience in order to get at the core of interest in the situation that he is transmitting to the viewer at home. He must make split-second decisions and maintain alertness for the human-interest cut-in shot. Taste, awareness of the relative importance of the parts to the whole, and a great ability to communicate visually will bring him to a position of leadership.

The standards for a producer-director seem almost unobtainable. As time goes on, as television improves, special training will be indispensable for him. However, a desirable curriculum would include so much that one doubts it could be compressed into four college years. Can we ask a young man or woman to become skilled in cinema methods, skilled in the various aspects of the theater, and at least acquainted with radio, in four years? If we do, what time have we allowed for the training in the plastic arts, the social sciences, the humanities, and other fields, that will give the potential worker the secure knowledge that makes discrimination possible? Can we suggest additional training in the field of television?

It is probably advisable to conserve explicit television training for those who have already acquired a broad educational background and a field of specialization within the theatrical and visual arts. Universities can look to their established departments of drama, cinema, and radio for the basic technical skills. What the producer-director learns there of basic showmanship can be transferred to television. How to make the transfer, he will learn by experience.

Here the university can contribute by supplying the laboratory, arranging now for the utilization of commercial facilities and later constructing university television studios. This is one of the major contributions a university can make—giving novices a chance to learn by doing. It is here that the guidance of a well-trained, experienced faculty will have its most telling effect.

A Brief History of Television for the Layman

RAY A. MONFORT

RAY A. MONFORT is Chief Engineer of television station KTTV in Los Angeles. This paper is based on his remarks at the AETA-UCLA conference on television.

FORTUNATELY for me, the history of television is easier to discuss than its present and its future; not, however, because its history is shorter, simpler, or livelier than most. Nevertheless, I shall try to simplify and freshen it as much as possible.

We often hear television described as being young. It is young, but I am frequently confronted with the further statements that television is a brand-new industry, or that very few know anything about it, or that no one heard about it until just last month or perhaps last year.

It seems to me that by exaggerating the newness of television what has been learned in the past is often underestimated and therefore not taken advantage of fully in current procedure. The dates of the events and discoveries that brought television into being began sixty-five years ago—neither more nor less.

In discussions of the method of transmitting a television picture, you have heard the word "scanning" used. It refers to the manner in which the picture is disassembled at the transmitting end and put back together at the receiving end. Suppose we consider a very simple, familiar example: a cheering section at a football game in which each person has a couple of cards, a black one and a white one. At a prearranged signal, certain persons hold up black cards and others white. The individual cards are solid in color and mean little alone; but from the other side of the stadium the combined cards spell out a word or make a picture. Likewise in television, individual fundamental elements are so combined that they form a picture when viewed at a proper distance. If we were to have a cheering section made up of about 350,000 persons,

each with two cards, crammed into a space the size of a television picture, we should be able to approximate a television picture.

The elemental areas into which the transmitted television picture is divided are very tiny. The changes in each of them are transmitted in rapid succession, so that to our eyes the total picture appears to be actually moving.

This represents briefly and, I hope, clearly, the concept of scanning, which was first arrived at by Paul Nipkow in 1884. Nipkow accomplished his scanning by means of a mechanically rotating disk around the edge of which he had drilled a spiral series of holes. By rotating the disk, each individual portion of the picture was considered in its proper relationship by means of a similar disk operating in exact synchronism. The conception of scanning is basically the same today, although Nipkow's original work, done, I believe, on the basis of some 60 lines to a picture, has been refined to the 525 lines with which we now operate.

Sir William Crookes contributed much to television in his work on cathode rays in 1878, and Hertz made a contribution of vital importance with his discovery of the photoelectric effect about 1888. Hertz's work was based on an even earlier discovery by a telegraph operator named Mays in Valentia, Ireland, who found that when sunlight came through the window and fell on his telegraph instruments, their operation was erratic. The erratic behavior occurred because the sunlight fell on the selenium cells that made up part of the equipment.

These individual contributions were not specifically applied in television until some time later. About 1907, A. A. Campbell-Swinton in England and Boris Rosing in Russia did some work on the electrical reproduction of images. A few years later, in 1911, the first all-electronic system of television was proposed; but no demonstration of the device was given. There was television of sorts. None of us would like it today. We should think it rather crude, just as we should think the automobiles our grandparents drove left much to be desired although at that time they served their purpose.

Early in 1907, Dr. Lee DeForest invented the vacuum tube, the use of which allows electrical impulses to be strengthened.

In 1923, John L. Jenkins in this country and Baird in England demonstrated moving silhouetted figures with a television system that combined mechanical and electrical components. The pickup used was a mechanical scanning disk. The receiving end was electronic and very much like the receiving end today.

Then came a special type of cathode-ray tube—we call it an iconoscope, in television—wherein the cathode rays followed a series of paths across the picture precisely as the perforations of the scanning disk had done. It was in 1923 that a patent for the iconoscope was applied for. The iconoscope is something you have all heard about and may very well have seen. It is still the favored equipment in modern television for picking up film, although, so far as I know, it is not used anywhere today for direct pickup, that is, for telecasting live action.

About 1934, both P. T. Farnsworth and V. K. Zworykin demonstrated all-electronic scanning systems. Farnsworth used a new type of tube called an image dissector. Although it met with some success, it is not generally used today. This was fifteen years ago, when television was still not brand-new.

Despite the costliness of building a television plant, interest in television began to grow in 1936, and the first all-electronic plant in this country was completed early in the year. In May a complete television show was presented. When I say complete, I mean it had comedians, a chorus line, and boring speakers. It was not broadcast on a commercial basis; it was strictly experimental; but it was, recognizably, a show.

By the time the first all-electronic plant was built, the mechanical scanning disk had been almost completely discarded. Its holes had to be so close together and so small that the problem of getting adequate line structure by mechanical means was conceded to be all but insuperable. The sixty lines with which Nipkow worked can be readily handled in a disk that is a couple of feet in diameter,

but difficulties begin to arise when the number of lines is increased to 120 or 140. Hence, mechanical scanning lost favor as soon as the development of electronic scanning facilities showed definite promise. I believe that the highest definition possible with mechanical means was about 240 lines. The electronic started at 343 lines. As you can see, the increase in line structure has been accomplished gradually.

Since 1936, there have been many changes—increases in line structure and increases in definition. From 343 lines we jumped to 441 lines. There was much dabbling with 500 lines, but ultimately 525 lines was adopted as standard.

It may be well to comment a little further here on line structure. I often find confusion about what the standard number of lines means. Newspapermen, for example, by analogy with photoengraving, tend to think of lines per inch. Actually, the standard is 525 lines for the entire telecast picture, whether it be two inches or twenty feet in height. Just by way of discouraging readers who may have begun to feel expert, I will add that the full number of lines do not appear in the final picture. Approximately forty lines are blanked out while the scanning beam returns from the bottom of the picture to the top, and allowance is made for the insertion of receiver synchronizing information.

A final point related to the future development of television should be made. The receivers that were used for the first all-electronic transmissions in 1936 are still capable, with only minor modifications, of receiving transmissions today. Although definition has improved very much, no major obsolescence has been encountered. For the foreseeable future, it seems doubtful that any will occur, with the possible exception of that resulting from the introduction of color. There has been a great deal of research and discussion since two color pictures were telecast in New York ten years ago. The pending decision of the F.C.C. on which of several proposed methods of color transmission shall be standardized will be of central importance in the future of television engineering.

A Note on Color Television

JOSEPH W. CONN

JOSEPH W. CONN is Assistant Chief Engineer of station KTTV-Television in Los Angeles.

THE ADDITION of color to ordinary black-and-white television pictures greatly increases the complexities of both the sending and the receiving television apparatus. It has posed many technical problems, most of which have been entirely or partly solved. However, the greatest problem is nontechnical and has not yet been solved.

The Federal Communications Commission is at present conducting hearings to determine which system of color television can be introduced without rendering obsolete the hundreds of thousands of black-and-white receivers now in use. The aim of the Commission is to standardize a system that will permit monochrome reception of transmitted color pictures with existing receivers. A person who wished to see colored pictures could install an "adapter" which would permit the reception of color on his present black-and-white receiver, whereas those who did not install the "adapter" would still be able to receive the same program in monochrome. A system that makes such provisions the Commission designates "fully compatible" with the existing system for black and white.

Two important systems have so far been demonstrated before the Commission. CBS's sequential system uses an "adapter" consisting of a mechanical disk which rotates in front of the picture tube and requires a series of color filters synchronized with a similar disk in front of the television camera. This is the simplest method, and fairly good results can be obtained with it in a short time. However, it cannot be said to be "fully compatible," since in order to transmit the colors in sequence it would be necessary to change the now standard frame rate, that is, the number of pic-

tures transmitted in a second. Since the frame rate for monochrome transmission has already been established, the ordinary black-and-white receiver would not receive a true monochrome picture of a color transmission without having been modified. CBS is urging immediate adoption of its system and adjustments of the standard frame rate to accommodate it.

The second system demonstrated is RCA's simultaneous color system, for which complete compatibility is claimed. No modifications are necessary in current receivers for the reception in monochrome of a transmitted color picture. This system uses three cameras and three receiving tubes, one each for red, green, and blue. Laboratory work is under way on a tube that will combine the functions of all three. The proponents of this system say that more time for required developmental work and testing will result in a better and "fully compatible" system. They urge postponement of the F.C.C. decision on color standards until this work can be done.

There are still other systems to be demonstrated before the Commission, one of which is the system proposed by Color Television, Inc. This demonstration will take place in San Francisco late in 1949.

The economic problems engendered by color television have not yet been broached. Ordinary monochrome television is expensive, and so far is a losing business. Just how the triply expensive color television would pay its way is not known.

For the Record

ANOTHER REPORT ON GERMANY

GENTLEMEN: Egon Larsen, in his "Report on Germany" in Volume III, Number 4, of the *Hollywood Quarterly,* states: "Most German film makers seem to be aware of the fact that their compatriots are still extremely ignorant of the crimes committed at home and abroad with the active or passive assent of the German people during the Nazi regime. . . ."

It is naïve to believe that the Germans are "extremely ignorant" of the crimes against humanity, although they do indeed want us to believe so today. The writer of this letter spent seven years in the Third Reich and can assure your readers that the majority of Germans enjoyed the atrocities; the rest knew of the crimes, but either were afraid to protest or were indifferent.

Mr. Larsen quotes from the Military Government program of August, 1947, that "particularly strict requirements have been established in connection with denazification of the film industry. Thus, Germans permitted to engage in the industry in important positions must possess high political and moral standards in addition to professional qualities." But he mentions among the working actors, without further comment, the "old-timers" Hans Albers and Willy Fritsch, the first the highest-paid actor in the twelve years of the regime and prototype of Nazi Herois, the second an active stormtrooper from the beginning. "Denazified" also are the writers and directors Wolfgang Staudte, Erich Engel, Georg C. Klaren, Helmut Kautner, and A. M. Rabenalt, all of whom worked in the film industry of the late Dr. Goebbels, and have now discovered their sympathy for those they helped to destroy. (Engel is now directing *Affaire Blum.*)

Since the premise of Mr. Larsen's essay is wrong, his analysis

gives us a false impression of the moral forces giving impetus to the new German production. I saw the three top pictures he mentions and cannot agree with his enthusiastic comment. The worst one in the group is *Film without Title,* which in its whole attitude represents a deliberate attempt to lead us astray. The screen shows us kindhearted farm folk breaking their necks to feed bombed-out city refugees, and cultured citizens of Berlin who treasure objects of art which they protect through air raids and bombings. We can hardly believe that these "charming" people are the same Germans who murdered, or permitted to be murdered, twenty million defenseless civilians, women, and children. But Mr. Larsen, who evidently has never been in a concentration camp, says: "There are numerous touches of subtle humor, which show that there is something universally human about seeing the funny side of things. . . ."

No, there has been nothing "universally human" about anything the Germans have done since 1933.

The Murderers Are among Us narrows the scope of the crimes down to one, and even then only an incidental, case of a sadist. The story is vague and apologetic; atrocities are blamed on the war and the turmoil of the times.

Marriage in the Shadows, the most mature film the Germans have shown us so far, still does not tell the truth. In spite of the harsh words with which the picture flays the artists for their indifference, the treatment of the story is evasive. The producers are careful not to offend the "better feelings" of the Germans and not to confess too much to foreign moviegoers. They talk shamefacedly about "deportations," but are too bashful to admit that deportations meant gas chambers and human slaughterhouses. And two of the most brutal outbreaks of organized terror, which I once witnessed on the spot, look rather tame in their reproduction on the screen. (Mr. Larsen calls it a scene of savage realism.) The greatest man hunt in history, the pogroms of November 10, 1938, and subsequently the shipment of 100,000 Jews to the camps

of Dachau, Buchenwald, and Sachsenhausen, is shrugged off in one line, and a beautifully diffused dissolve takes us through five years of mass murder.

To call the story of the trek of the Jews, *Long Is the Road,* an achievement of the new German film industry, is about as misleading as to call *The Search* a German picture. True, both films used Germany as a background. But as sure as the one is an American-Swiss enterprise, the other is an enterprise of Jewish D. P.'s. Most of the Jews who volunteered for this picture came from Russia, Poland, and the Balkans, having been picked up in the homelands and forced into the labor camps of the Reich. They do not speak German, but Yiddish. The only German actor is Otto Wernicke, who portrays a Nazi. The world première of *Long Is the Road* took place before an audience of experts, in the Bergen-Belsen concentration camp, early in 1948. But the picture was made for the whole world to see and judge.

It is a mistake to believe that a new democratic motion picture industry in Germany depends now only upon the building of new studios. It is the philosophy of the German people that has to be rejuvenated before they can continue where they left off in 1933.

HERBERT G. LUFT

REPLY

GENTLEMEN: Mr. Luft's letter about my "Report on Germany" is not a criticism of my facts, but of my attitude to them. As a result, we are talking about the same thing on two different planes, and although I do not share his opinions I cannot say that he should not utter them. They are emotional, and I understand and respect his emotions.

This, however, does not get us any further in our discussion of present-day German film making. If Mr. Luft objects to the denazification of the filmworkers he mentions, he should address his protest, with appropriate documentation, to the Occupation Authorities; it's their pigeon, not mine.

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Eric Pommer described *Long Is the Road* to me as a German film under American license. I have no reason to question this.

Mr. Luft's further comments are based on his personal opinions. He has every right to differ from me or anyone else. But this has nothing to do with our subject. He reproaches me for the fact that I have never been in a Nazi concentration camp. No, I have not; but I respect the feelings of those who have, and who believe that the German people, including those who were also in concentration camps alongside with the Jews, should be exterminated for its collective crimes. I beg to differ. History isn't made that way: Hitler tried and failed.

EGON LARSEN

"OF ALL PEOPLE"

DEAR SIRS: "Who would have thought," asks Mr. Egon Larsen in your Vol. III, No. 4, "that it would be the Americans, of all people, who would now be introducing the documentary films into German cinemas?"

We are entertained by Mr. Larsen's British surprise at our activities, but we don't feel that he has in any way outlined the real scope of Military Government's documentary film program in Germany. For, unlike the other nations sharing the administration of Germany, the Americans have made the production of documentary films a really integral part of their information program. This has involved not only the encouragement of creative, politically healthy German producers, but also the establishment of an MG Documentary Film Unit for outright production of reorientation films.

It might interest you to see a list of documentaries produced by this Unit since it was organized here in Berlin late in 1947:

Nuremberg. A feature-length historical record of Nazi criminality, based on the judgment of the International Military Tribunal in Nuremberg.

Hunger. The German and the world food problem, with the emphasis very much on the latter.

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It's Up to You. A historical film contrasting the two Germanies—the good and the evil—which struggled for power between the two world wars.

Reaction Positive. An anti-VD film in present-day German terms.

Mosquitoes! A popular scientific film on malaria and malaria control.

Me and Mr. Marshall. A look at the Marshall Plan from the point of view of a young Ruhr miner.

Step by Step. The story of how German and MG coöperation rebuilt Berlin's biggest printing plant.

Home on the Moor. The resettlement of German refugees on the reclaimed swamp land of Bavaria.

Marching, Marching. A long look at German militarism, with a whimsical beginning and a dead serious end.

The Bridge. The story of Berlin's air lift, as told jointly by a U. S. pilot and a German member of a Tempelhof unloading crew.

Black, White, Yellow. An attempt to destroy the Nazi legacy of racial hate and misinformation.

Between East and West. The political saga of Berlin from the end of the war to the end of the blockade.

Made in Germany. A review of the West German economy, focusing special attention on export-import trade.

Two Cities. A cursory comparison between the U. S. Zone city of Stuttgart and the Russian Zone city of Dresden.

(Many of these films, by the way, have been produced in English as well as in German versions, although none has yet been distributed in the U. S.)

Other films are now in the cutting room and future plans call for an increased production program.

In addition to original production, Military Government has dubbed scores of good American and foreign documentaries for use in the U. S. Zone and Berlin. Primary distribution of dubbed

films *and* MG productions is handled through the regular commercial theaters of the American control area. Nontheatrical distribution is growing despite a woeful shortage of 16-mm. sound projectors, and all our documentaries are screened at U. S. Information Centers and at an increasing number of German schools, discussion clubs, etc. Special large-scale showings for youth groups have long been a fixture throughout our Zone.

The U. S. documentary program is designed primarily, of course, for the political, social, and economic reorientation of the German people. A secondary aim, however, has been the reorientation of German short-film producers. Here, as in so many other fields, we have bumped into the traditional German lack of political and social initiative. Too many of our licensed producers are still dedicating themselves to "Schoenheit über alles," a propensity which brings forth "Kulturfilme" rather than documentaries.

On behalf of these licensees, it must be said that the Nazi years have left them with a high distrust of films with "Tendenz," or political tendencies, be they left-wing, right-wing, or straight-down-the-center. But despite soft focus and soft pedaling, some interesting, encouraging films are emerging from the busy studios of Munich and Berlin, to wit: a film recapitulation of Germany's democratic revolution of 1848; the first German documentary venture into psychoanalysis; a film on international living at the University of Munich; and, above all, a big budget railroad picture called *Rails, Cities, Men* which clearly belongs to the brave, true tradition of international documentary.

Thus, Americans—"of all people"—have managed to plant here the seed of documentary, as we understand that term. Whether the seed can thrive and take root in the salted soil of German society is a question only time will answer.

STUART SCHULBERG
Chief, Documentary Film Unit
MPB, ISD, OMGUS

A CORRECTION

The first entry in the annotated list of the quarter's catalogues, reports, and pamphlets in Volume IV, Number 1 (pp. 106-107), should have read:

Documentary in Denmark (Central Film Library of the Danish Government, 1, Dahlerupsgade, Copenhagen V, Denmark, $1.00) is a catalogue of one hundred factual films produced in Denmark from 1940 to 1947. The catalogue and the synopses of the films were prepared by Ebbe Neergaard, whose article "The Rise, the Fall, and the Rise of Danish Film" will appear in Volume IV, Number 3, of the *Quarterly*. There is an introduction by Arthur Elton. Each film is completely described, and there are numerous excellent illustrations.

A Bibliography for the Quarter

Book Editor, FRANKLIN FEARING

BOOKS

THE ASSOCIATION of the university with radio has always been more intimate than that between the university and motion pictures, a fact which is reflected in three current books on radio writing. Their authors have one characteristic in common: they are or have been members of university staffs as instructors in radio writing or as writers for university radio stations. The classroom influence is indicated by "assignments" and "exercises," etc., at the end of chapters, by a profusion of examples illustrating good and bad script writing, and, be it said, by a general down-to-earthness and practicality which undoubtedly has been hammered out by the exigencies of teaching. Luther Weaver, author of *The Technique of Radio Writing* (Prentice-Hall, New York, 1948), is Instructor in Radio Writing at the University of Minnesota and chief executive of a St. Paul advertising agency. His book covers radio dramatic writing, news programs, serials, music, religious programs, commercials, children's programs, participation programs, and a section on radio writers' salaries. There is an excellent bibliography. Rome Cowgill, author of *Fundamentals of Writing for Radio* (Rinehart, New York, 1949), is a script writer for the *Voice of America* program and was Script Editor of WHA, University of Wisconsin. There are chapters on the radio theater, the radio play, dialogue and narration, sound, music, plotting, adaptations, fantasy, school broadcasts, spot announcements, and marketing. Several complete scripts are reproduced. The style is clear and interesting, and the discussion of such important problems as characterization and stereotyping, the use of dialect and accent, reveal the author's awareness of the nature of her medium, and its social responsibilities. *Radio News Writing,* by William F. Brooks (McGraw-Hill, New York, 1948) is con-

cerned with a much narrower field. The author is Vice-president in Charge of News and International Relations for NBC and Instructor in Radio News Writing at Columbia University. Its one hundred and ninety pages contain highly readable discussion of such topics as types and selection of radio news, writing radio news, feature stories, women's news, sportswriting, commentaries, interviewing, special events, and television news. An appendix contains examples of news commentary scripts by such commentators as H. V. Kaltenborn, Morgan Beatty, Cesar Saerschinger, Edward Tomlinson, and Edward R. Murrow.

Radio Listening in America, by Paul F. Lazarsfeld and Patricia L. Kendall (Prentice-Hall, New York, 1948), is the second report on the result of surveys sponsored by the National Association of Broadcasters and conducted by the National Opinion Research Center. Regarding the first report (*The People Look at Radio,* University of North Carolina Press, 1946), this reviewer said (*Hollywood Quarterly,* Vol. II, No. 4, p. 432), "This is probably the most extensive study ever undertaken of the public evaluation of a medium of mass communication." This statement may be extended to cover both reports. These are essentially studies of the radio audience, its structure, its tastes, its attitudes toward radio, and its listening habits. *Radio Listening* has an excellent introductory chapter on the "communications behavior" of the average American in which the results of the studies of the overlapping audiences for radio, films, magazines, and books are presented. These two books are not only examples of sound social science research in the communications field; they are also readable. They are certainly on the must list of every serious student in this field.

Radio Broadcasting for Retailers (Fairchild, New York, 1947), by Enid Day, tells how to sell yourself as well as your program to a department-store sponsor, and is based largely on the personal experiences of the author. *The Radio Announcer's Handbook,* by Ben G. Henneke (Rinehart, New York, 1948), is a teaching manual for students. Part 1 analyzes the radio announcer's job,

and Part 2 presents fifty-four exercises and drills for the announcer in training. The author is Director of Radio at the University of Tulsa.

The purpose of *Radio Workshop for Children,* by Jennie Waugh Callahan (McGraw-Hill, New York, 1948), is to prepare students to enter educational radio, either as teachers in school workshops or as members of staffs of local stations. It is intended to serve as a textbook for college courses in this field. Writing, producing, and programming for public-school radio are covered in detail. Appendixes include a survey of existing college and university training courses in radio classified by states, a recommended course of study for colleges and universities in children's radio, a bibliography, a listing of manufacturers of radio equipment, a glossary of radio terms, and the various network and broadcasters' codes for children's radio programs.

Ned Midgley, author of *The Advertising and Business Side of Radio* (Prentice-Hall, New York, 1948), is Sales Service Manager, CBS, and Lecturer in Radio, New York University. The book is a businessman's view of network and station organization, radio engineering, promotion and publicity, all phases of radio advertising, and rates. There are separate chapters on the history, organization, and coverage of each of the major networks. The book should be useful as a compendium of facts about the business and corporate aspects of radio. There is the almost inevitable glossary of radio terms.

The entire field of nonentertainment films—also called "documentaries," "factual films," "nontheatrical films," "educational films," etc., etc., is surveyed in *The Information Film,* by Gloria Waldron (Columbia University Press, New York, 1949). This book is the result of research sponsored jointly by the Public Library Inquiry and the Twentieth Century Fund. All aspects of the 16-mm. film are discussed: its production and distribution problems, its educational uses, its relation to the public library, and its prospects as a medium of adult education. It is significant that

Miss Waldron concludes that the prospects that the educational film will be commercially self-supporting are slight. And she believes that subsidy is the answer. "We de not see anything amiss in the subsidization of education, research, music, art museums . . . symphony orchestras and little theaters. . . . [If these cannot survive without subsidy] neither can the noncommercial film if it is to be an intelligent, independent alive medium." There are appendixes on methods and sources, excerpts from a shooting script of a documentary film, a bibliography, and, of course, a glossary of terms.

The History of the British Film, 1906–1914, by Rachael Low (Allen and Unwin, London, 1949), is a second volume in this series published under the auspices of the Research Committee of the British Film Institute. Like the previous volume (*The History of the British Film, 1896–1906*), the present one is a carefully documented report of scholarly research. The appendixes include a bibliography of sources and a listing of 283 films produced between 1906 and 1914. There is *not* a glossary of terms.

Cinéma de France, by Roger Régent (Les Editions Bellefaye, 29, rue Marsoulan, Paris 12e, 1948), is a survey of French film production during the period 1940–1944. The author indicates that his book is not a history of the cinema, but rather an anecdotal record and critical analysis of French film production during the German occupation. The 220 films produced during this period are described in detail. The book is beautifully illustrated.

Thirty-three *Saturday Review of Literature* contributors discuss the problems of the writing craft in *Writing for Love or Money* (Longmans, Green, New York, 1949). Norman Cousins is the editor of this volume, and among the contributors are Henry Seidel Canby, Elmer Davis, Stephen Leacock, Phyllis Bentley, William Saroyan, Ellen Glasgow, Thomas Wolfe, Somerset Maugham, Lyman Bryson, Rex Stout, and John Mason Brown. There are essays on writing the novel, the short story, the whodunit, juvenile fiction, humor, biography, literary criticism, and

editorials, as well as writing in the fields of the social and natural sciences. Most of them are interesting, and several are really exciting. Every screen and radio writer should read Lyman Bryson's "Social Science Needs a Language All Its Own," and every social scientist should read Samuel T. Williamson's "How to Write Like a Social Scientist."

Television Encyclopedia (Fairchild, New York, 1948) is the somewhat ambitious title of a book prepared by Stanley Kempner. It is divided into three parts and an appendix. Part 1 is a historical survey of television in the form of a chronological record; Part 2 is composed of biographical sketches of persons living and dead who have contributed to the development of television; Part 3 is, of course, a glossary of technical terms. The appendix consists of a survey of the distribution of television receiving sets and a television bibliography.

The American Library Association (Chicago, 1949) publishes *Audio-Visual School Library Service: A Handbook for Librarians,* by Margaret I. Rufsvold, Associate Professor and Director, Division of Library Science, Indiana University. According to the author, the book has two main purposes: "to indicate that the effective audio-visual program in the school is an integral part of the educational program . . . and to point out some of the distinct ways in which the school library can extend its existing services to include [these types] of instructional materials." The following are the major topics discussed: audio-visual materials, indexing, processing and circulating materials, housing and equipping a materials center, budgets and expenditures for audio-visual programs. An appendix contains listings of public and private agencies that produce and distribute educational films and filmstrips. This should be an extremely useful little volume for libraries.

F.F.

NEW FILM JOURNALS

The International Catholic Cinema Office (O.C.I.C.) has initiated the publication of the *International Film Review,* a handsome quarterly that appears in Spanish, French, and English language editions, with permanent editorial correspondents in twenty-six countries and Vatican City. Among the numerous contributions to the first number, dated January, 1949, are "The Vatican among the Pioneers of the Film," by Piero Regnoli; "Less Potent than Fire but More Powerful Than the Printing Press!" by Georges Damas; "The Thomist Philosophy Turns to the Cinema," by Felix Morlion, O.P.; "Aims of the Legion of Decency," by Mrs. James F. Looram; and "Orson Welles, Immaterialist," by Jean De Bongnie. These appear in the sections headed Our Place in International Life, In Search of a Christian Doctrine of the Film, and Round the World of Film. In addition to the articles on the United States and Latin America which appear in Round the World of Film, the dozen contributions to each of the sections Film Panorama and Catholic Enterprises give unusually wide current coverage. The concluding sections of the first number are Instructional Films, The Children at the Cinema, Techniques That May Revolutionize the Cinema, Echoes, and Books, Periodicals. The *Review's* representative in the United States is J. Brubaker, 3300 Netherlands Avenue, New York 63, N.Y. The yearly subscription rate is $4 (single copies, $1).

Another new quarterly is the German-language *Film-Kunst,* subtitled *Zeitschrift für Filmkultur und Filmwissenschaft,* which is published and edited by Dr. Ludwig Gesek in Vienna. Pursuing the development of film internationally, the first number (Spring, 1949) gives space to many authors and to a wide variety of points of view. The featured articles comprising the first half of the number include contributions by Jean Cocteau ("Poesie und Film"), G. W. Pabst ("Der Film der Zukunft"), Joseph Gregor ("Der Hamlet-Film"), Georg Josef Strangfeld, S.J. ("Zur Problematik

des religiösen Films"), Vsevolod Pudovkin ("Ueber den Filmschnitt"), and H. H. Wollenberg ("Wo steht der englische Film?"). The second half of the number, in reduced type, provides an unusual concentration of criticism and research which includes news items, statistics, production notes, and bibliography. The editorial address of *Film-Kunst* is Wien I, Weihburggasse 10–12. The yearly subscription rate is $4.35 (single copies, $1.20).

The first number of *Projecção,* organ of the Cine-Club of Porto, Portugal, is based on papers written for the series of film showings, "Modern Tendencies of European Cinema," recently sponsored by the Cine-Club, articles on the Festival of French Cinema which celebrated the opening of Porto's new theater Cinema Batalha, and articles reprinted from other journals. In the absence heretofore of "a serious, independent film publication" in Portugal, the first number of *Projecção* sets out to give to its readers as thorough a general view of contemporary European film art as possible in view of the limited number of foreign films available in Portugal. Its four sections deal with "the rebirth of the French school," "the creation of the Italian school," "the continuation and development of the English school," and the Swiss film as represented by *The Last Chance.* The address of the Clube Português de Cinematografia (Cine-Clube do Porto) is Rua do Clube Fenianos 29-2°, Porto, Portugal.

F.F.