BROADCASTING TELEVISION AND RADIO

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Broadcasting
Television and Radio

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Preface

THIS BOOK has a very simple purpose—to describe television and radio broadcasting with the same realism that characterizes the programs of both mediums. Television and radio are not abstract, but when you look at what this awesome creation of manipulated energy has become—the thousands of stations, the millions of homes-with-sets, the multimillions of dollars spent annually on advertising and talent—the focus is blurred. There are never 2.7 listeners or 3.8 viewers per set; there are three or four people, enjoying a program at home, put on by performers who seem as friendly as the people next door, over a station managed, like as not, by the man down the street.

The experts in television and radio are first the people who work in its various areas, and then the audience, you and your neighbors. If you want to learn how broadcasting came to be, we have written the story, talking about its growth and its present operations, its place in the world and in your life. If you want to learn some of its performance arts, we have put down what we know about them—that they are fundamentally the old and familiar arts of writing and performance—and have given some suggestions about the professions and their techniques.

W. K. K.
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a Handbook

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PART I

Television and Radio Performance


R. DRANKO

CHAPTER ONE

Performing in Television and Radio

GEORGE BURNS, describing the difference between radio and television, says, "To me the great difference between radio and television performance is that television demands honesty. Radio is an escape from reality, whereas good television is reality. I think radio was much easier because the listener created his own mental image or impression of you as he wanted you to be. In television you have to live up to that image, and in my case it takes a lot of make up to do it."

This is a clear, brief analysis; the difference between radio and television is the difference between a listener-created image and honest realism. But let's see if we can narrow it down in terms of acting. Another veteran performer, Jack Benny, says, "Although radio and television are closely aligned, there is a tremendous difference between the two media. I have found that the most successful radio shows I have done are the ones that leave a lot to the audience's imagination and let every one of the millions of listeners create in his mind the scene we attempt to portray. To me, television is an extension of the stage. Naturally, we have to take into account the new medium and the many qualities it gives us a chance to inject into our programs, but essentially, I picture a theater audience when I plan each program."

Here again is the listener-created image against the realistic, with the realism pictured as essentially that of the stage. Anyone with any acting experience can start making his own distinctions now, but Dinah Shore points out some differences in performance. "The difference between radio and television is about twenty hours a week! For my two television shows a week, I rehearse every morning of the week except Friday, and all day on the day of the show. For my radio shows I go in an hour or so ahead, examine the script and the songs, do the show and I'm home!"

These are perceptive comments from performers having past experience which includes program planning and production as well as acting. They know that the difference between one medium and another is not explained by comparing specific techniques. Understanding a medium means more than knowing *what you do* with it. You must know also *what the medium does to you,* as far as the audience is concerned. The fundamentals of acting are the same for all mediums, and they have nothing to do with microphones or cameras. To learn to act for radio or television, you must first learn to act. Then you try to understand the medium in terms of audience impact and professional requirements. Last—and until then it's valueless—you develop the specific techniques.

The Fundamentals of Acting

Fundamentally, acting requires basic talent and enough experience to use that talent effectively.

One can, and we shall, break this statement into definitions and descriptions of specific requirements, but unfortunately, talent defies diagnosis, and there is no experience or set of experiences that have magic values for actors. The successful actor may have no more talent than one still struggling for recognition; he may simply be using his talent more effectively. By our definition this would indicate greater experience, but not

necessarily the same kind of experience. There are many kinds of experience valuable to actors, and you can start learning to act now by learning to experience.

An actor is not a mechanical wonder able to simulate a number of emotions, but a human being who makes his living by playing parts in which he convincingly portrays other human beings. Actors—and, indeed, writers, painters, or anyone involved in portraying real or imaginary people—should have genuine knowledge of human needs and emotions. This familiar advice is sometimes taken as a cue for wild and riotous adventures in glittering cities. But those who go on safari for *Experience!* are hunting far afield for something that exists all about them. If you are color-blind, it's no use wishing you could fly to Paris in the hope that the paintings in the Louvre would reveal color to you. And no matter where you live or what your circumstances, if you think you lack opportunities for experience, you really lack perception and awareness. Let's look at some of the experiences available to you now, and helpful to you as an actor.

OBSERVATION OF INDIVIDUALS

Wherever and however you live you see a good many people every day, in stores and busses, on streets, at home, in class. If you pay only enough attention to them to keep from bumping into them, you're ignoring the source material of acting. The people you see every day walk and sit and stand and run; they talk, smile, frown, express emotion with their hands, and not only with their hands but with their whole bodies. In the actor's vocabulary, this is posture, gesture, movement, and facial expression; voice quality, inflection, and so on. If you look at people as though they were actors, you'll be less likely to substitute techniques for acting.

For example compare old people and young, noting how the slackening muscle tension that comes with age changes the bal-

ance of weight and thus the body outline, but not always in the same way. Look for the spry old man who trots briskly about with his shoulders too far back and his spine too stiff, compensating for the slack in his muscles but unable to restore their resiliency.

Watch people waiting on a corner for a bus. They are not just old people and young ones; some are nervous because they are late for work, or happy about where they are going; some are weary, some are irritated. Even if they say nothing to you or to each other, the way they stand and move reveals their attitudes.

If you learn to look at people as individuals as well as actors, in time you will see not only posture and movement but the minute details that add up to character and personality. In developing a part as an actor, you may draw upon such remembered details long after you have forgotten the individual himself.

VICARIOUS OBSERVATION

Watch people in nondramatic television programs and films, paying less attention to the main figures than to those in the crowd. In watching forums and interviews, when you can see the whole group, focus your attention on the inactive members, who, of course, are not inactive at all but are examples of more or less controlled eagerness, amusement, nervousness, or rising temper.

Listen to the voices of television performers, without looking at them. Listen especially to people speaking without formal rehearsal, such as the contestants in an audience participation program. Hear what nervousness does to pitch and rate and depth of breathing; what happens when nervousness passes, or an attempt is made to control it.

Naturally, you can learn a good deal from watching and listening to dramatic programs in order to analyze acting tech-

niques. But if you try to portray people by imitating actors you have seen, you are using second-hand material, and your product will probably be second rate.

Equally important, the more you observe people, the more you know about them. People, real people, are the audience to which you play, and you can't reach them unless you know them.

FICTIONAL EXPERIENCE

Good literature is written by people who observe and try to understand other people, and though an author does not transfer an observed human being directly into a character in his story, he creates characters from the sum of his experience. The more familiar you are with good literature, the better your understanding of the variety, complexity, and conflict of human needs and emotions.

We say "good" literature because novels and stories so classified usually develop plots from complications of character rather than the reverse. But there is much to be gained from lighter works. Suppose, for you, reading a serious novel is such a chore that you could learn nothing from it, and your leisure reading is confined to comics and cartoons. Some of them are extremely well done, but even the most banal and superficial of them probably shows figures in action, drawn with a minimum of detail. At the worst, you can find all the clichés of facial expression and gesture, the clenched fist of anger and the wide eyes of horror. Often a characteristic posture is presented—a belligerent man, or a timid woman—and the economy of line in the drawing helps you see the essential body posture. Many comics these days have a dramatic plot line, with each picture in the strip the high point of a scene. The artists have been influenced by camera techniques; you see over-the-shoulder shots, shots from above and below scene level, close ups, long shots, and so on. Characters are grouped

for weakness or strength, sets are balanced, and there is an effect of movement, though you see only the arrested motion. Next time you read a full-page comic, go over it a second time and analyze each picture as a scene.

You can carry on similar analysis in an art gallery or with a book of painting reproductions. It is quite possible that if you study a painting for acting techniques, you will come to appreciate it as a work of art. The same is true of opera, ballet, and sculpture. However, our purpose is not to guide your cultural development but to point out the enormous number of experiences available to you, and how to make use of them. It makes little difference what the area of experience is as long as it increases your perception and awareness of certain fundamentals directly or indirectly related to the fundamentals of acting.

But it's obvious that you don't learn to act by going to art galleries or analyzing comics. It's also impossible to learn to act by simply learning techniques. It may even be, as some insist, that you can't *learn* to act. But without entering into the debate, let us repeat that acting requires basic talent and enough experience to use that talent effectively. Experience is cumulative, and the broader yours is, the more you will learn from training and professional experiences.

TRAINING AND PROFESSIONAL EXPERIENCE

As long as you realize that it is not an end in itself, there is probably no better training than that received from a formal education, in a department or school of drama. You will conclude this formal education but you will never stop learning how to act. There is, in other words, no sharp division between training and professional experience. You do not progress from one to the other but are always involved in both; as a student, each performance gives you experience in your profession, and as a professional each new role is a training experience. How-

ever, what you learn is different. In your training period you will concentrate on some basic requirements.

Voice Control. It is a simple matter to train your voice so that you have control over your breathing and pitch and volume. (See Chapter Two for some helpful suggestions.) The danger is in overemphasizing voice. Achieve maximum control, and then forget your voice as such, recognizing it as an instrument designed for use, not for admiration.

Body Control. Body control starts with normal good posture. You must know how to walk, sit, turn easily if not gracefully. You must also be able to use your body as a dancer does, as a means of communication. This requires agility, flexibility, and control of muscles that you can develop with the standard physical exercises.

Interpreting Direction. To take direction as an actor, you need to know the vocabularies of acting and of radio and television. These are easily acquired through glossaries and dictionaries. More important, however, is understanding the purpose of direction. No special knowledge is required to understand, "Try that line more slowly." But to carry out this direction you must recognize that it is impersonal, even though it is said to you. It is not a criticism of your acting; it may be meant to help you improve your interpretation, but on the other hand it might refer only to the tempo of the scene as a whole. The director's job is to see that the whole production is greater than the sum of the individual parts. His directions are always impersonal, and whether you agree with them or not, you carry them out.

Understanding a Part. Usually radio and television rehearsals begin with a reading, concentrating on interpretation, characterization, and a general idea of mood and tempo, with a rough timing of the script. If you have a chance to study your part before the reading, don't limit yourself to reading your own lines with a variety of inflections and actions. Study the script to understand the character you are playing, its relation to other

characters, and its purpose in the story. If you don't see a script before the first reading, make sure—by asking the director, if necessary—that you have this same understanding before the rehearsal ends. Obviously, you cannot interpret your lines without understanding your character, its relation to others, and its dramatic function.

Cooperating in Rehearsal. Rehearsals are work. If they are fun, it's because actors enjoy their work. Most directors allow a little clowning in rehearsal to relieve tension, but only because tense actors don't work well. Cooperating in rehearsal means keeping your mind on your work.

Specifically, if you are not part of a scene, don't disappear, blissfully assuming that it will take at least half an hour for the director to solve that troublesome music and sound routine. The director may decide to tackle the troublesome bit later and make use of his actors while they're there. If there's a break, return on time. And, though it seems too obvious to state, but too important to omit, come to rehearsal on time.

Be there on time, and present or accounted for all the way through. Also be alert. The daydreamer doesn't hear his name until it has been called twice. He jogs up to the microphone, not sure whether they're taking the first scene or the next. He's looking for his place on the script when his cue comes, and he has no idea what the director means by, "Let's try this the way we did the card-playing scene" because he wasn't paying attention when that scene was rehearsed.

Being cooperative in rehearsal isn't merely good behavior; it is professional conduct.

The Business of Acting

When you play a part in a radio or television program, you are a member not only of the cast but of a large and complex organization that includes all performers, writers, the production crew, and a large number of people whom you will probably never meet—the office staff, salesmen, executives, clients,

and everyone who has anything to do with the planning, scheduling, and producing of the program. They (and you will come to refer to them as "They") determine the director's budget, which in turn determines the number of hours of rehearsal and other things affecting you directly. No matter how great your talent, you must fit into this complex organization. You need to know not only how to act but also how to be an actor.

To be an actor, in the minds of some young people, is to be an intense and unusual individual, full of artistic temperament, and excused from conventional behavior. But whereas acting imposes a certain irregularity of working hours on the individual, and behavior that is unconventional compared to that of a 9 to 5 office worker, the profession of acting requires an enormous amount of self-discipline. Within its unconventional pattern, it has conventions as rigid as those of any profession.

First of all, an actor is an artist who must constantly seek a market for his talents. He may put himself in the hands of an agent, but this does not solve the problem. An agent is in the business of marketing talent on a percentage basis. A reputable agent seldom takes on inexperienced actors because they may not prove marketable; he gambles on some relatively unknown ones and tries to find them parts, but his greatest service is in negotiating contracts, and taking care of the business end of a job which the actor may very well have found for himself. Few actors reach the point where they are sought after. Most are constantly looking for a part, if possible a running part with a contract that guarantees some steady work, or even just a chance to play in something, somewhere, which will give them a chance to be seen.

Second, an actor is a member of a profession which has its own guilds and unions.[1] An actor cannot perform professionally unless he is a member in good standing of the guild operating in the medium in which he is to appear. Dues are levied in proportion to earnings, but there is a minimum which must be

[1] For a general survey of unions and guilds see Appendix I.

paid whether or not there have been any earnings. Most actors, at least in the beginning, find it necessary to have an auxiliary source of income, not just to pay their union dues but in order to live, maintaining their membership and using their spare time to look for work.

Third, an actor is essentially a self-employed individual. In spite of unions and agents and the complex industry in which he works, he has no real security. His career is made up of a series of individual assignments, perhaps eventually a series of contracts, but always contracts with a specified time limit. When he is actually working, that is, when he has a part, his hours and pay are regulated and protected by the guilds' contracts with networks and production agencies; between jobs he is on his own. If he has a running part with a contract, he has certain securities for the duration of the contract and as specified in it. But he is competing in a very overcrowded profession, where seniority has no advantage per se, and a young upstart with fresh, original talent can displace an older actor almost overnight. As a result, most successful actors try to achieve some security through investments, anything from real estate and annuities to package shows and producing companies of their own.

Acting, then, is an overcrowded, unionized but insecure profession which, in radio and television, is part of a tremendous industry. To succeed in it requires something more than talent —talent plus a lucky break, or, because few of us can count on luck, talent plus the old-fashioned virtues of perseverance and self-discipline.

Perseverance is necessary to keep going in the face of constant discouragement, unsuccessful auditions, and the realization that your ability as an actor cannot be judged until someone gives you an opportunity to act.

Self-discipline is necessary because you are very much on your own even when you are being cast fairly regularly. It is up to you how much time you spend working up your part

before and between rehearsals, and how much you do to continue your training when you're out of school.

Fundamentally, as we have said, acting requires talent and enough experience to use that talent effectively. To be an actor requires this plus a union card, undaunted conviction that you will succeed, a love for acting that keeps you going when you don't, self-discipline, and—if possible—a private income.

In the next three chapters, some specific techniques for developing good broadcast speech and acting for television and radio are described, with projects for self-improvement. Because many of the acting techniques are much the same in both mediums, to avoid repetition we have roughly divided them according to their importance in each medium. In the television chapter we concentrate on movement and gesture, physical and personal qualifications, and some suggestions for memorizing and rehearsing that are elemental and probably already familiar. In the radio chapter, the emphasis is on vocal acting, pause, inflection, rate, and volume, with again some guides from an actor's primer, too important to omit, elementary as they are. These guides include the use of the microphone, sign language, and rehearsal behavior. Memorizing and movement are not part of radio acting, and the microphone has less importance in television than in radio, but most of the other techniques and guides will prove equally helpful for both radio and television acting.

PROJECTS FOR SELF-IMPROVEMENT

1. Use every opportunity you have for performing before an audience. If you cannot find an audience, read plays aloud with a group or even alone, learning to use both voice and body.
2. Look at everything from comics to old masters, following the suggestions in the chapter. Find a full-page adventure comic and write out the first two or three pictures as though they were scenes from a play, listing cast, sets, and

describing the movement and position of the characters.

3. Go to movies and stage plays and watch the reactions of audiences. What makes them laugh? What holds their interest? Watch them as they come out of a theater; are they a mass, or ordinary people in twos and threes?

CHAPTER TWO

Broadcast Speech

A SURPRISINGLY large number of television and radio performers are nonprofessionals—the guests on interview, forum, panel, quiz, and discussion programs. Often the guest is an expert in some field other than acting, but when it's time for the broadcast, he has a desperate feeling that the curtain is up, the spotlight is on him, and he has to give a performance for which he lacks training and experience. Sometimes tension freezes him, sometimes he adopts an artificially elaborate style of speech, or he overplays the role of the guest who is not only perfectly at ease but can liven the show with quips. This is true not only of nonprofessional performers but often of theatrical performers who are, in the well-known phrase, unaccustomed to public speaking.

Stage fright is normal. Many professionals have it, and few ever lose it altogether, but in the case of nonprofessionals, most of it comes from a misconception of what broadcasting requires. On nondramatic programs, much of the director's work involves putting guests at ease so that they will be natural, because the cardinal principle of broadcasting is naturalness. An intimate medium immediately reveals tension, artifice, or faked ease, any of which detract from the human interest and content appeal of a program. The only performance requirements are good taste and a direct, friendly manner. The speech requirements are good, clear, natural, conversational American English.

For professional performers there are, of course, additional requirements, but the following guides to broadcast speech apply equally to actors, newscasters, announcers, and the guest on the program.

VOICE

A beautiful voice, or even what is often called a "good voice," is not as important in broadcasting as a voice with personality. You can do very little to change voice quality without making it artificial, and a forced quality is not only immediately apparent but sets up tension. If you are relaxed, at ease, and unself-conscious, you can be natural instead of acting natural. But, to make the most of the voice you have, you need breath control, proper voice placement, and good articulation.

Breath Control. Shallow, short breathing limits flexibility. Breath should come from the diaphragm not from the chest, and with a noiseless intake. Relaxation of muscles, particularly in the neck and shoulders, helps to relax the diaphragm and to open the throat. Probably the best way to achieve breath control is through singing lessons, but individual exercise can develop it. Practice saying long phrases on a single breath, such as, "Roll on, thou deep and dark blue ocean, roll," and singing whole stanzas without stopping for breath. The goal is to be able to say any long line on a single breath if it is more effective, and to control the amount of breath expelled with each word.

Voice Placement. When you speak, your voice is at its best if it is placed front and forward in the mouth. A voice placed back or in the throat has a muddy, unresonant quality. Imagine you are suppressing a yawn, forcing the breath out through the nose; then vocalize a sound through the nose, and you will have an idea of where the proper placement should be. If the throat is relaxed and the voice forward, it will not be nasal. One good exercise for placement is to practice saying "Nee, Nay, Nah,

No, Noo" slowly until you can prolong the vowel sounds without nasality.

Articulation. Good articulation is important for clarity, particularly in radio. Most faulty articulation is the result of carelessness and poor voice placement. If you record yourself reading a page or so from a book or newspaper, you can check for common errors and make a rough guess as to their cause when you listen to the playback. The following are the most frequent errors:

1. Indistinct final consonants, specially, *t*'s, *d*'s, and *s*'s.
2. Unnasalized *ing* in words like "going," which becomes "goin' " or "goeen."
3. Thick *s*'s, *t*'s, and *d*'s; fuzzy *f*'s, and *v*'s.
4. Heavy dark *l*'s.
5. Nasalized vowels.
6. Diphthong vowels, such as "na-oo" for "now," "ay-eet" for "ate," "ly-eek" for "like," and so on.

Since overarticulated speech sounds affected, it is better to practice proper articulation mechanically, and not to be consciously articulate when you broadcast. The following suggestions will be familiar to many, and though they are some of the most effective they are by no means the only ones that will improve articulation.

1. For indistinct consonants, practice reading any written material aloud, recording yourself if possible. Give exaggerated emphasis to word endings, perhaps underlining the final consonants on the written copy. When you listen to the playback, you may find that the emphasis does not sound exaggerated. Read, record, and play back until you are satisfied with the clarity of the final consonants and know the amount of emphasis needed. Practice reading aloud until the necessary emphasis comes naturally.
2. Thick or fuzzy consonants are usually caused by improper voice placement. They are formed in the back of the

mouth rather than with the lips and the top of the tongue. For *t* and *d*, the tip of the tongue should tap the upper gum; an *s* should be formed with the tongue relaxed, not blocking the passage of air by touching the sides or top of the mouth. In general, guttural or fuzzy quality in other consonants is overcome if they are formed in the front of the mouth. Practice forming the consonants properly, and then saying them in short words which they begin and end, such as "tight," "says," "deed," "fluffy," "verve," and so on, and in words where they are the middle consonant, such as "cater," "lasso," "rider," "often," and "proven."

A dark *l* generally results from poor voice placement. A bright *l* is spoken forward and uttered with the tip of the tongue. Practice forming the *l* and saying it in words such as "like," "call," and "mellow."

3. Nasalized vowels are usually the result of a constricted throat and bad voice placement; diphthong vowels are sometimes caused by careless pronunciation or regional conditioning. Practice simple words such as "say," "see," "sigh," "so," and "shoe," until each vowel is distinct and separate in sound, but don't attempt to remedy vowel sounds without proper placement and breathing.

   Unnasalized *ing*'s are also usually the result of bad placement and/or carelessness. For superficial treatment of *ing* trouble, practice singing the word "singing" on a high and sustained note.

These purely mechanical problems of good speech have the same relationship to good speaking that finger exercises have to playing the piano. The clearest and most precise articulation won't substitute for interesting and meaningful delivery, and the overarticulated, too resonant, or too obviously controlled voice calls attention to itself, rather than to what is spoken. The standard good broadcast speech is normal, clear articulation with, obviously, good pronunciation. If you have no lack of clarity in your speech, it may be best not to try to improve individual sounds.

INTEREST AND MEANING

The techniques of varying pitch, inflection, and pacing are, like voice exercises, unimportant for anyone who knows how to give interest and meaning to spoken material. Overinflection and obvious pitch variation does not sound like ordinary conversational speech. If you understand the purpose and meaning of what you read or speak, and if you are interested in making certain that others understand it, you have little need for technique. To communicate interest and meaning, however, requires good phrasing, variety, and emphasis.

Phrasing. The punctuation marks on written copy are not guides to phrasing, which is, in a sense, punctuating according to the relation of ideas. Natural phrasing groups certain units of words together because they are related in idea. A simple example is "Yes, I will." Except for special dramatic emphasis, there would be no pause for the comma.

In broadcasting, phrase for meaning, pausing not necessarily at the ends of sentences but at the ends of word groups to let their meaning be absorbed. For example, in the following sentences there are four word groups, indicated by the numbers in parentheses:

"(1) And now the weather forecast. (2) Early morning fog, scattered showers, and low cloudiness are predicted for most areas (3) with temperatures ranging from 40 to 60 degrees. The day's high will be 72 (4) with bright sun expected by midafternoon."

This is not the only division of word groups possible, but the first step in phrasing is to divide material according to your interpretation of the meaning. Here, the first numbered group introduces the new subject; the second gives the morning prediction; the third, temperatures; and the fourth, the afternoon sun. There is no need to pause at the commas in the second group, nor for a full stop at the sentence break in the third. Because sentence-by-sentence reading becomes monotonous,

most broadcasters try to phrase so that there will be a variety of run-on and full-stop sentences.

Phrasing is a matter of individual style, and there are no rules, only some general principles. You phrase for meaning, and pause at the ends of meaningful units. Because you can say only so much in a single breath, you also phrase for comfortable reading or speaking, providing yourself with natural pauses that will prevent your running out of breath at the end of a sentence or gasping in the middle. Varied lengths of phrases give variety, but unnatural phrasing is artificial. In general, phrasing is a meaningful transfer of written material into your normal style of speaking.

Variety. Good speech, and normal speech, is varied in rate, pitch, and inflection. In broadcast speech, particularly for radio, variety is important for holding interest, but artificial variety is easily detectable. Pitch, rate, and inflection must fit content and be varied only within the limits of conversational speech.

Monotonous speech often results from either too much tension or not enough. The nervous tension that restricts breathing and tightens muscles takes away control of the voice, but just as bad is the lack of interest which lets a dull, familiar pattern substitute for interpretation, or the lack of vitality which gives a flatness to the voice.

Variations in rate, pitch, and inflection are necessary, but if they are mere mechanics, the voice gives it away. Interest and vitality come from within. You can simulate them to a certain extent by smiling and deliberately tensing body muscles, as commercial announcers who read the same copy over and over again frequently do. But on television, the meaningless smile—which frequently does not fit content—is only another giveaway. For newcomers to broadcasting, the lack of edge and interest in the voice often comes from the lack of audience contact. In a group performance, a play or panel, it is the director's job to see that performers play to or communicate with each other. In presenting a talk or in reading copy, it usually helps to project an imaginary listener or viewer and talk to him.

Emphasis. To emphasize a word or phrase is to give it greater significance so that it stands out and has an impact upon the listener. Indirectly, emphasis helps to achieve variety, but its chief purpose is to increase understanding.

Briefly, words or phrases are given emphasis through increase or decrease in voice volume, and/or pauses, measured rate, unusual inflection, and repetition. These are the same ways in which people give emphasis in ordinary conversation. For example, a man giving directions to a stranger in town may pause before he says the name of a street, raise his voice when he pronounces the name, and then repeat it with measured rate to make each syllable distinct. A girl describing a chance meeting may say excitedly, "You'll never guess who was there!" and then almost whisper the name. However, most of us know at least one person who habitually speaks with exaggerated emphasis, giving portentous weight to unimportant words, using so many unmotivated dramatic pauses and changes in volume that the speech pattern is meaningless and affected. The same thing happens in performance if techniques of emphasis are used without reference to meaning.

To use emphasis effectively a thorough understanding of the material is necessary to determine which words and phrases are most important. Even so simple a line a "Let me tell you" may have several meanings. Emphasis can make clear whether it is a belligerent "Let ME tell YOU," or a joyous "Let me TELL you!" On the other hand, it may be a simple introductory statement, to be spoken unemphatically. Emphasis is not a line-by-line problem; the total meaning of a talk or a scene determines the relative significance of individual lines, and of the words or phrases within them.

When the meaning and the relative significance of a line are understood, usually a normal, natural emphasis presents itself. If it does not, the type of emphasis used should be based on the purpose served by the word or phrase. Why is it important? What impact should it have upon an audience? Emphasis can be used for clarity or for dramatic effect or both. Too fre-

quent dramatic emphasis, however, leads to the "punchy" style used in some types of commercials and sometimes for comic effect in acting, but otherwise unsuited for broadcasting.

TENSION

Nervous tension can be physically controlled, but mental attitude is more significant. Inexperienced performers generally worry about a tremendous number of things over which they have no control, and which are in the capable hands of the director—everything from the timing of the program to the balance of the picture or the sound levels. The first step in relaxation is to cut down your worries to those things that concern you, and to concentrate on performing as you were directed in rehearsal.

Unscripted broadcasts for television and radio are rehearsed, but usually every attempt is made to avoid overrehearsing and thus to maintain a maximum of spontaneity. Don't be concerned about making a simple statement or asking a simple question. What isn't clear to you probably isn't clear to most of the audience. On the other hand, don't worry about not talking if you find you have nothing to say. The chairman or master of ceremonies will keep the program going, and if he is skilled, he will find a way to bring you in. If you find yourself wound up in a sentence, or seeking the right word, do whatever you would in a similar situation if you were conversing with a friend—stop, smile, and start over, probably.

In scripted programs, the key to relaxation is adequate preparation. For a radio broadcast, read the script aloud until the words are so familiar that there is no possibility of stumbling on a phrase. Because reading a script seems easy, most inexperienced broadcasters under-prepare, reading silently at home instead of rehearsing aloud. Reading aloud not only gives familiarity with words but also, for the nonprofessional, helps overcome the self-consciousness of speaking them. Home rehearsals also give the inexperienced performer a chance to read

his script to someone, a friend or relative, and to establish a person-to-person communication in the reading style, which transfers to the broadcast.

In television, obviously, being line-perfect is essential, and the advice would be superfluous if there were a common understanding of the term. You are not line-perfect until you have lost all concern about remembering lines, and until you understand the meaning so well that the words, in a sense, come naturally. As long as you have a sense of triumph when you get through a rehearsal without stumbling, you are not line-perfect. If you memorize meaning first, the words are more quickly learned.

With adequate preparation, the inevitable tension of the broadcast situation is invigorating. But sometimes, it's wearing, too, and just before a broadcast you can reduce your tension level by stretching and turning the neck, or doing any physical exercise that relaxes neck and shoulder muscles. You can repeat those exercises at any breaks within a program when you are not on the air or on the screen.

Speaking on television, of course, requires more than a good vocal presentation, but not the gestures of the actor or the platform orator. A natural, relaxed posture, an expression of genuine interest, and the normal gestures of friendly conversation are most appropriate. In both radio and television, there is always a director, and the rest is his responsibility.

It is not difficult to develop good broadcast speech, but, without experience, it is hard to be a good speaker. The following projects are planned primarily to point out ways of simulating an audience situation.

PROJECTS FOR SELF-IMPROVEMENT

1. Rehearse a page of any material written to be spoken, and record your reading. Evaluate the variety and interest of your reading, watching especially for a monotonous pattern of inflection, such as a downward inflection at the end of each sentence or phrase, and for words swallowed

at the ends of sentences. Re-record, giving special emphasis to the last words of sentences and an occasional deliberate upward inflection. Compare the two recordings.

2. Memorize the same material and record yourself while speaking to someone. Play back and compare with the first two recordings for spontaneity and vitality.
3. Prepare a five-minute talk on some subject with which you are familiar. Record it without an audience, reading from the script. Then, without memorizing the script, cover the subject in an extemporaneous talk to a group seated with you at a table. Record it, and compare with the first recording. Record the talk while reading from the script again, making the reading sound as extemporaneous as possible.

CHAPTER THREE

Television Acting Techniques

To BECOME a television actor you must first be able to act. Then learn as much as you can about television—and then forget all about the mechanics of the medium. The director adapts your performance to television; you need only act. The studio is a stage with sets and props, and the camera is the directed eye of the viewer. The viewer sees what the director wants him to, except when an actor's face betrays his awareness of the camera or of a cue he's readying himself to take. The director can control camera angles and lighting and movement. With good actors he can persuade the viewer that the black-and-white pictures on that relatively small screen are people in trouble or in love—but the camera-conscious actor ruins the illusion of reality.

THE CAMERA AND YOU

In order to be able to take direction quickly you should know the vocabulary and mechanics of the medium.[1] You should also know how the camera will make you look to the viewer, and you can find this out simply by looking at any recent, relatively good, unretouched photograph of yourself. When you act, of course, you are not your everyday self, but

[1] See Chapter Nine, "Directing Television Programs," and Chapter Eighteen, "Transmission of Sounds and Pictures."

you only pretend to be someone else. You may be in costume, made up, using the voice, the words, the gestures and movements of someone else. You may be carried away to the point where you feel that you are the character you are portraying, but every motion must be calculated and controlled. If a flick of your eye reveals that you are conscious of the camera, the audience catches it and the viewer sees your everyday self beneath the costume and makeup. It isn't easy at first to ignore the red-eyed monster of a camera moving in on you, knowing that when the light goes off you must sprint nimbly to the next set, don the jacket and glasses held ready for you there, and in a matter of seconds be sprawled out in an easy chair on the set. speaking the leisurely lines that open your next scene. Suppose you are in that very situation. And suppose, as you say the closing lines of the one scene, with the camera moving in on you, you're worried about whether the jacket and glasses will really be ready for you, or whether you'll miss the cue. You give a quick look at the camera to see if the light is still red, a sidelong glance at the next set—and every viewer knows you have something on your mind besides what you're saying. You should leave the worry to the director and concentrate on your job, which is to act in this scene until it's over, then to go to the next set and act in the next scene. Your only value to the director is as an actor, and to the viewer as the character you portray.

The following suggestions, probably obvious but still important, will help you do your job well.

1. Memorize your part so well that you won't have any worry about forgetting lines. Don't think you can depend on Tele-prompters or gobos, which keep printed dialogue in view of actors out of camera range. An old stagehand once pointed to the Tele-prompters surrounding a set and remarked, "They could all be replaced by actors."
2. Develop skill in memorizing quickly. Television requires you to be a quick study. Practice can help you speed the

memory process, and you can practice by memorizing almost anything. Avoid mnemonic systems that depend on tricks or that won't work if other members of the cast aren't letter perfect. Memorize meaning, not just words. The safest short-cuts make use of key words in lines and cue lines, and are chiefly valuable in cutting down the first steps in memorizing.

3. Practice performing in the presence of a distracting activity. You may not be able to simulate a telecast or take, but you can approximate the distractions. You don't need a television script; a scene from any stage play will serve. Rehearse and perform the scene, but not before a silent and attentive audience. During your performance have some of your friends quietly and swiftly set up a scene only a few feet from you. Let others be cameramen, rolling a couple of mock cameras into various positions. Play to an unseen audience, ignoring the feverish activity around you.
4. Visit television studios to observe broadcasts if you can. Don't restrict yourself to drama programs. Watching nondramatic programs will help you to become familiar with the equipment and the broadcast situation.

TELEVISION AND ACTING

It would be foolish to pretend that television acting is just stage acting televised, though in a program with a live audience, it is often not much more than that. There is an audience, a platform stage, and if you play to the audience and forget the cameras, the director will worry about what the television audience sees. On a stage or in a studio, you're acting under direction, and it makes little difference to you whether your movement is guided in terms of sight lines or camera angles. But though television sometimes has little effect upon acting, it makes a difference in casting and in physical and personality requirements.

VISUAL REQUIREMENTS

The television camera is mercilessly revealing, and the lighting required for television transmission requires subtler makeup than that for the stage or even motion pictures. A young actor can be cast as an old man in radio or on the stage, but he is far less likely to be so cast in television. Even filmed television (not kinescopes of live programs but programs filmed like motion pictures) though it has more latitude, is usually produced in such limited time that directors prefer actors who look the part, not because putting on a strong character makeup takes time, but because it's one thing less that might go wrong.

Your visual qualifications for a part, then, count more in television than in other mediums. It's not mere phrase-making to say that visual qualifications include not only appearance but appearances. If you have a running part in a weekly show and have become visually identified as a certain character you may be limited to it. This can lead to a show of your own, built around the character, provided that the character and your personality are strong enough to sustain a show. However, being visually identified as a certain character is not usually an advantage. On radio, an actor with a range of characterizations can play a succession of different roles in the same serial, or he can gasp his dying words as a villain and double three lines later as a gentle old man. In television, the visual identification makes directors wary of using the same actor too often, and though there's no fixed rule about it, if you are the villain in this week's show you can be pretty sure you won't be the hero's pal in next week's.

What you look like is not as important as whether you can play the kind of parts for which you are visually suited. Being young and beautiful isn't much of an advantage unless you can play ingénues. Being old and ugly is not a great disadvantage if you can develop a range of characterizations to suit your appearance. This is where you start in any event. The following

suggest some ways of discovering the types of characters for which you are visually suited.

1. While wearing ordinary street clothes, take a very good look at yourself in a full-length mirror. Whether you are fat or thin, tall or short, if you can wear mass-produced clothes you must be similar in size to a vast number of people. You don't look like them, but your face is not unlike many others in shape and features. What distinguishes you from other people is an accumulation of detail—the way you stand, move, speak, the expression of your face, your manner, your grooming. If you're a woman, you probably use cosmetics to improve your appearance and style your hair in a manner you consider most becoming, possibly to emphasize a good feature or compensate for a bad one. You can look like a different type of person by changing your hair style and the amount of makeup you wear. But you are still you as long as the other details are unaltered. Choose a character type unlike you but about your age and size. Suppose that you are a person whose apparent age is "young." If you are of average height and weight, you can probably pass for anything from the late teens to the late twenties. If you are a woman, choose a character such as a tired, overworked, defeated farm housewife in her late twenties, or an aggressive, self-assured, determined, young woman scientist. If you are a man, try something like a hen-pecked, worried, unsuccessful shoe salesman in his mid-twenties, or an ignorant, uneducated, popular wrestler. Round out the character in your imagination so that you see a person. Imagine the person standing, walking, sitting, eating, talking to a friend, to a stranger. Imagine him working, picking up objects, and so on, and then practice the posture and movements in front of a mirror.
2. Imagine the character's face, the way the head is carried, the set of the jaw, the firmness or laxness of the mouth,

the look in the eyes. Would there be worry lines or a squint or a tic or habitual mannerism? Would the hair be neat or untidy or too neat? Without theatrical makeup, try to look as you would if you were that character. Do the same thing with other characters, imagined or real.

3. Practice playing yourself. If you are a young man or woman, in pantomime play scenes such as the following: (a) A young man is watching a baseball game. His team is behind when one of the players hits a home-run with two men on. Prepare the scene for a close-up, showing your reactions in your face, body set, and hand gestures. (b) A young man is standing outside an office building at 5 P.M., waiting for the employees to come out. He is planning to ask one of the girls for a date but he's extremely nervous about it, almost decides not to, then convinces himself it doesn't matter whether she accepts or not. As the office workers emerge, he greets those he knows but watches for the girl. When he sees her, he tries to be casual. She does, too, but as soon as she sees him, she hopes he has come to meet her, though she fears she's wrong. They talk "casually" while others jostle and bump past them, and before he's managed to ask for the date, her bus arrives at the corner and she dashes off to catch it. Play the scene two ways: for comedy, and as a tender love scene. Play it with a full cast, and again with only two characters.
4. Practice revealing emotions and reactions through facial expression only, as for a close up. You'll use your whole body, but the audience will see only your face. (a) Listen to bad news but control your emotion. (b) Think over a problem and come to a sudden decision. (c) Try to remember the tag line of a joke you've started telling someone. (d) Try to hear what they're whispering in the next room but be worried about being seen. (e) Watch someone walk away from you, someone you love who is leaving forever; someone you dislike whom you've just bested in

an argument; someone you're worried about; someone you're watching impatiently until he's out of sight. Repeat as for a long shot.

5. Practice revealing emotions and reactions without the aid of facial expression. (a) You're reading a notice on a bulletin board directly in front of you, looking for your name on the list. The audience will see the back of your head, and your shoulders. Show surprise and relief when you come to your name; or show resignation or great joy. (b) You are picking up an object from a table. The audience will see a close up of your hand and wrist. Let the way you pick up the object show that you are stealing it quietly and successfully; that you are interrupted in the act of stealing it; that you are not stealing it but are afraid to touch it; that you're not afraid to touch it but are burned by it; that it is something you value and love. (c) You are coming into a room. The audience will see you at an angle and from above. Walk into the room in these ways: You are in a hurry to find something there; you are a timid guest and the room is full of VIP's; you are coming home after an exhausting day; you are considering renting it; you are escaping from danger to hide in it; you love it and have been away for a long time; it contains a surprise and you are suddenly shocked, delighted, annoyed, or horrified.

PERSONALITY QUALIFICATIONS

In addition to being a quick study and able to perform in the midst of distracting activity, a television actor must be able to adapt quickly to situations. Live television programs are timed as they progress, and actors respond to the same speed-up and slow-down signals as used in radio.[2] But the adaptability

[2] For a description of sign language, see Chapter Four, "Radio Acting Techniques."

needed is more than a quick response to a timing signal or an emergency situation.

You may play a part, for example, in which you are a tragic, broken figure at the end of one scene. A thirty-second commercial follows, during which you make a swift costume change, go right into the next scene as the life-of-the-party four years later. You don't have time to get into the mood of the gay scene; you barely have time to get into the costume. In a filmed television program you would have more time between scenes, but this is not an unmixed blessing if you're playing a part which, for example, is intensely emotional and builds scene by scene. If there's a long interval between the takes of two scenes, the audience mustn't know it from a let-down in your intensity. Or you might be called back after a day or so for a retake of a scene. Some of your lines and business may be changed, but you'll be expected to adjust to them quickly and, with a minimum of rehearsal, to do the scene so that the audience will feel that it's part of a continuous action.

In a live television program, you don't let the viewer sense that you're surrounded by well-ordered chaos, and in some filmed programs you can't let the viewer sense that you're playing to a cast and crew instead of to a live audience. You must seem to have audience contact. Perhaps you say a laugh line and appear to wait for the roars of the audience to die down when actually the only sound that followed your line was the ticking of the stopwatch that timed your pause. On the other hand, of course, you may play to a live audience and have to adapt to their laughs, or, sometimes, to the lack of them, not betraying to the home viewer that the laugh you expected did not come.

Live or filmed, sometimes you have to play to empty space and yet seem to be speaking to someone who is reacting to what you say. It may be an imaginary audience or an imaginary character. You may have a two-minute speech that ends the scene which, though it's addressed to another actor, gives him time to run out and change costume for the next scene. The audience

sees only you, of course, but the quality of your voice and the focus of your eyes keeps them from realizing that you're the only one on the set.

The ability to adapt your performance to changing situations is largely a matter of personality. If you are not a flexible individual you can learn from experience, but each experience simply teaches you what to do in a specific situation. If the identical situation occurs again, you're fine. If you always get a laugh on "Ask Wilbur," you learn to wait for it, but unfortunately the time it doesn't come, you also wait.

PROJECTS FOR SELF-IMPROVEMENT

1. Memorize any long paragraph and practice it as though it were a speech in a part you are playing. Deliver the speech before an audience (a few friends will serve), tape recording it if possible. Then, after someone else cuts three unrelated sentences from it, repeat it at once with the cuts and with the same inflections and at the same rate.
2. Find a comedy scene in any play, preferably a scene with just two characters. Rehearse privately, and time your dress rehearsal with a stop watch. You don't need to memorize the parts. It's more important to work on interpretation. Read the scene before an audience, again timing it with a stop watch. Does the reading time out the same as the dress rehearsal? Probably not, if you got laughs and audience reaction, or if you left time for them and they didn't come. Repeat the scene before the audience and play it as though it were being filmed and laughter and audience reaction would be added later to the sound track. Don't stop at the end of a comedy line and look brightly expectant. You must act as though you are performing the scene for the first time, and are not sure when the laughs will come.
3. Memorize and rehearse a short noncomedy scene with two or three characters. Time the dress rehearsal and make a note of it. When you do the scene before a group,

have someone time it to see how close you come to your dress rehearsal timing. If you are more than 10 or 15 seconds off, it is probably because stage fright speeded your rate or caused you to forget lines, or because in dress rehearsal you were imagining an audience of inanimate figures, not real people.

4. With this same scene or with another that you rehearse and memorize, practice responding to speed-up or slow-down signals without changing the mood of the scene. Have someone give you either of the signals some time after you begin, and the opposite signal later on in the scene. It is important that you do not know which signal to expect, nor when it will come.
5. At the end of Chapter Four, "Radio Acting Techniques," is a scene called "Rehearsal." Act it as a stage play, or if you have facilities, a television production. Movement and business are indicated in the lines, and though you may not be a writer, if you understand acting you will find lines in the script you can cut and pantomime.

CHAPTER FOUR

Radio Acting Techniques

A RADIO ACTOR is not a disembodied voice—not to the listener, who sees all characters imaginatively, and not as a performer, even though only the voice is heard. It is almost impossible to avoid using the posture of a character because you cannot suggest him or his emotion with only your larynx. However, the radio actor's movement is restricted because the playing area is limited, and because the microphone has great sensitivity.[1] The techniques of radio acting are simply methods of adjusting regular acting to an instrument that can transmit the most delicate sounds to the ear of the listener.

THE MICROPHONE

The microphone has a pick-up range whose area of extreme sensitivity is rather small, and, except for nondirectional mikes, sharply defined. Directional mikes have one or more sides which are dead; that is, they do not pick up sound at all. The pick-up range radiates out from the live sides.

When you speak into a microphone within the sensitive pick-up area, you are "on mike," which means that your normal volume of speech is heard by the listener as clearly as if you were standing beside him. Beyond the sensitive area, you

[1] See Chapter Eighteen, "Transmission of Sounds and Pictures," for a complete description of microphones, and Chapter Ten, "Directing Radio Programs" for details of microphone use.

are "off mike," which means that your normal volume is heard by the listener as though you were at a distance from him, and the farther "off mike" you are, the farther away you sound.

If you speak as you walk from off mike to on mike, you are "fading on," and the listener hears you as though you were walking up to him. When you "fade off," he hears you as though you were moving away from him.

In the studio, you cannot hear your voice as it sounds over the air, and though you know roughly whether you are on mike or off, your mike distance is always established by the director, who hears you in the control room.

The director begins by "taking a level" on your voice. You read a few lines at the mike; he listens in the control room and decides whether you are too close to or too far from the mike. When your mike distance is established, you maintain it, not rooting yourself rigidly to the floor, but taking care not to be a Creeper, a Rover, or a Leaner. A Creeper inches slowly up to the mike, a Rover backs away from it on one dramatic line and strides toward it on the next, and a Leaner bends toward it as though drawn by hypnotic force. It's easy to forget about mike distance, but you can always check on your voice level by looking at the director. If you have lost your mike position, he will signal you.

Learning signals and rehearsal behavior may seem to have little to do with acting but it is a necessary first step.

1. Come to rehearsal on time, with a pencil for marking your script. Circle or underline your character name before each of your lines. When you are given a direction in rehearsal, mark it clearly on the script so that you will not have to be given it a second time. Underline or mark in some brief fashion any cues you fear you might overlook. Write in anticipation cues when you feel the need, such as "Get ready for crowd scene," or "Watch sound man for cue." If any cuts are made, mark them clearly. But do not overmark your script, and be sure no mark

interferes with the legibility of your lines. Keep written cues brief. If you are to take a line on cue from the director, "Q" will suffice.

2. Avoid making unnecessary sounds. At the mike, this means lip and mouth noises, unnecessary rattling of your script, or shuffling of your feet. In the studio, during rehearsals and broadcast, in the intervals when you are not on mike, don't converse, laugh, scrape your chair, or create disturbance.
3. Always know where the dead side of the mike is. Ask if necessary. If you must sneeze or clear your throat when you are at the mike, you can move to the dead side, turning your head away from it. Even if you are not at the mike, if you cough or sneeze or have a reason for talking to someone, move to the dead side of the studio, or at least turn your head away from the mike.
4. Hold your script in one hand, preferably at shoulder height and to the side of the mike. When you turn a page, lift it, don't slide it, and slip it behind the bottom page. Don't drop it on the floor for someone to step on. Never staple the pages of your script, and remove any clips when you rehearse or broadcast.
5. Watch the director fairly constantly so that it won't be necessary for anyone in the studio to call your attention to him.
6. Learn the sign language.

Speed up—A fast, circular motion of the hand.
Slow down—Two hands pulling away from each other as though stretching something or pulling taffy.
Cut—Forefinger drawn swiftly across throat.
Move closer to the mike—A beckoning gesture, or hands up, palms facing each other, moving toward each other.
Move away from the mike—A pushing away gesture, or hands up, palms inward, moving away from each other.
You're off mike—Palms a few inches apart at mouth level, or one hand, palm down, with fingers spread and curved, moving as though putting a cap on a large jar.

You're too loud, or projecting—One finger to the lips in a "hush" sign and/or one hand, palm down, pushing down slowly.

Speak up; more volume—One hand, palm up, in a raising movement.

Take a level—One hand, palm down, cutting the air sidewise as though smoothing a level surface.

Watch me, or watch for cue—A finger pointing to the eye.

Ready for cue—One hand up, palm out.

Take the cue—One hand, index finger outstretched and pointing directly at the individual who is to take the cue.

Everything's under control—One hand raised with thumb and forefinger forming a circle.

Ignore the cut marked on the script—Hands clasped with fingers interlocked.

The timing is on the nose—Forefinger touching nose.

Two words of caution: Use sign language in the studio only when necessary. Also, when you look at the director, put your forefinger on your next line to make sure you can find it easily.

READING AND ACTING

Some people find it difficult to act from a script without sounding "read-y," giving the listener a picture of an actor reading lines instead of a character in action. A reading interpretation can be good, but isn't radio acting. Following are some suggestions for practice in lifting the lines from the page:

1. Know your lines so well that you don't read them, but look at the script and say them. It's not a matter of memorizing your part, but of reading it over aloud so often that your eye takes in whole sentences instead of a series of words.
2. Hold your script well up, slightly to one side or the other, and as far from you as is compatible with easy reading. If you bury your face in your script or hold it too close, you tend to talk down in your throat and tense up. If your head is lifted, your voice is freer.
3. Practice reading your script aloud, lifting your eyes from

it at the end of each line, as though you were looking at the person across the mike. As you become more and more familiar with the script, you can look up from it as you come to the last sentence or last word of a line. You know the lines as soon as you see them, so you don't have to read them, but rather you can say them. Of course, you have to be careful to keep your place on the script, but you can put your forefinger on the next line. Even if there is only a word or two in each sentence that you can "say" instead of "read," it helps prevent a reading quality in the rest of the words. In addition it helps you play to the actor opposite, improving both your performance and his.

4. On a short line, read aloud from your script and listen to yourself. Then read it over silently until you know it, put your script down, and say the line aloud. Say it several times with various inflections until it seems right. Pick up the script again and read the line the way you said it. If you find that even when you know the line, you can't read it aloud from the script and sound the same as when you say it, repeat the process until you can.
5. At home, read your part aloud using all the gestures and movement it calls for, that is, all that is possible while holding a script. This will loosen your muscles and relax your body, which helps prevent read-yness, and gives you a sense of acting the part. If you sound read-y, it's because you're not acting, but interpreting. In rehearsals, use some gestures and any body movement that doesn't change your mike position. Watch your general posture to be sure you don't hunch up and stiffen your muscles. From time to time when you don't have a line, throw your shoulders back and stretch your neck muscles by raising your head and turning it in a semicircle.

These home rehearsal techniques are useful even if you don't have a reading problem. Radio gives actors little time to get

a part, and many good actors are not quick studies. Eventually you may not need much home rehearsal, and can limit it to reading your part aloud several times. Until then, intensive home study of your part compensates for the short rehearsal period.

DEVELOPING THE ART OF CONVERSATION

Radio plays are written in what is called "conversational style," which means only that the language is in the ordinary language of people rather than literary or theatrical speech designed to be projected from a stage. You do not project your voice in radio acting. It would sound artificial to the listener, and the microphone carries your normal speech faithfully to him. But obviously there is more to it than just using your normal volume, and though the art of radio conversation is basically just good dialogue interpretation, it requires you to sound fresh and spontaneous even when you are responding to a signal to change your volume or rate or mike position. It is an art to retain a casual drawl and increase your rate, or to keep a passionate cry of fury while you're being signaled to decrease your volume. Here are a few techniques, not just for adjusting to signals but for vocal interpretation.

Rate. You never read a line so fast that it would be unintelligible to a listener, nor so slowly that he might forget you between words, but the effect of speed or slowness is not just a matter of rate. It depends upon the purpose of the line. For example, is it fast because of excitement, or anger? Is it slow because the character is thick-witted, because he is considering a momentous decision, or because he is choked with emotion? Usually a change from ordinary rate is the result of emotion, and emotion is revealed by the way you breathe and the way you space words. Excitement makes you breathe fast. You catch your breath sometimes. You talk fast because you want to get it all out, but with catching your breath and trying to

say everything at once, your words come out in a series of irregular rushes, and your pitch goes up.

If you have a line to be read with excitement, you don't want speed as much as you want fast, irregular breathing, higher pitch, and uneven spacing of groups of words, with a sharp, fast attack on each group. In a reasonably good script, the pattern is set in the lines themselves. A badly written script might have something like the following: "(FAST AND EXCITED) I won the first prize in the contest which I entered on the spur of the moment just a day before the deadline for entries, never dreaming I would win but feeling that I should take a chance because even the smaller prizes were well worth the little effort it took to write out a jingle and send it in. I can hardly believe I won the first prize!" No matter how fast you read that line, you can't get much feeling of excitement into it, because it's just not there. An excited person doesn't use long sentences with conjunctive clauses and logical word order. An excited person would be more likely to say, "First prize! I got first prize! My jingle. . . . That jingle I dashed off. . . . And it was the day before the contest ended! I never dreamed I'd win. . . . Maybe one of the small ones, but. . . . First prize! I can't believe it! First prize!"

Sentences are abandoned in the middle because a new thought has struck and must be expressed immediately. There is a sense of excitement in the tumbled disorder of the almost disconnected phrases. Such a line calls for a faster rate, but not a rapid staccato throughout. In fact, the first two words could be slower than normal rate, spoken breathlessly and followed by a gasp, with the next sentence starting at high pitch, and read fast with almost no pause before "My jingle. . . ." The next phrase could be normal rate and pitch, but breathless, ending with another gulp. The next sentence might have a sharp attack, higher pitch, and accelerating rate, and go right into the first couple of words of "I never dreamed I'd win." "Never" could be almost without breath, followed by a gulp

and "dreamed I'd win" spoken at lower pitch and slower rate. From there, pitch and rate could both go up to a peak of high-pitched, breathless excitement. There are any number of other ways to do it, but the following generalizations can be drawn from this example:

1. Rate is relative.
2. Rate is less descriptive of mood or emotion than phrasing, voice quality, and attack.
3. In a long speech, rate should be varied. Any even rate becomes monotonous.
4. For radio particularly, the important thought in a line must be read at a rate that is clearly intelligible to the listener; unimportant or repeated phrases and words can be thrown away for effect, if necessary, but the effect should not confuse the listener by causing him to switch his attention from the drama to an attempt to figure out what he didn't hear.

When you work on interpretation for radio drama, remember that the listener has no visual aid to understanding a line. Therefore the story must be heard clearly, no matter what the mood or emotion. Anything said too fast is likely to be unclear, but the effect of speed can be achieved without rapid rate throughout. Excitement, or any emotion that accelerates the heart beat, affects breathing, which in turn alters voice quality and phrasing. Speaking with less breath and breaking a line into short phrases is a characteristic of many emotions, and is also a characteristic of physical conditions caused by exertion. When it's a physical condition with no emotion involved, only breathing and phrasing are changed. A man out of breath from hard work might say, "Well, I guess that's enough for today." He would say it without much breath, and with phrasing broken by gulps of breath: "Well . . . I guess that's . . . enough for today." Spoken in a level voice with no change in the attack, it's merely a statement of fact expressed in normal

word order but one in which all the words cannot be spoken without stopping for breath. An angry man terminating an argument might say the same words, but he would use an explosive burst of breath on "Well!" and then breathe heavily as he tried to control himself to choose his next words. The controlled anger would show itself in a tense voice quality, a biting attack on some words, and heavy breathing. The rate could be slow and measured, fast and accelerating, or both, as controlled anger erupts into fury.

Rate, then, is adaptable. That's important in radio acting because pace, tempo, and variety are achieved primarily by changes in the rate of the dialogue. When a director signals you to speed up or slow down in a broadcast, you can respond to the signal without spoiling your performance. Skillful use of rate improves the freshness and variety of your line reading. It will be helpful to remember the following:

1. The effect of fast dialogue is partly the speed with which cues are picked up. If you're asked to slow down when you're in a fast scene, pick up cues as fast as before, decrease your rate in the middle of a line, and speed up again on the last few words. If you're asked to speed up a fast scene, make sure the essential thought is not lost in the rush. Lean on key words, or set them off with a catch of breath or any appropriate emphasis.
2. Slow dialogue has more leisurely cue pick-up. However, if you're asked to slow down a slow dialogue, don't slow the cue pick-up by more than a second or so. Pick up your cue, slow your rate, and if you really have to stretch, extend or add pauses within the lines, not between lines. To speed up a slow scene, retain the leisurely cue pick-up but increase the rate of the lines. Shorten pauses within the lines, or omit them if you can achieve their effect in another way, such as by a change in volume.
3. When you speed up on cue, particularly if the scene isn't supposed to be fast and exciting, don't let your pitch

go up and your volume increase, thus betraying your personal excitement. Similarly, when you slow down, don't drop the scene by letting your pitch and volume drop.

Volume. Most of what we said about rate applies to volume. Volume is relative and adaptable. Changes in volume give variety, and in radio nothing is ever said so softly it can't be heard, nor so loudly that it blasts the mike. In fact, changes in volume must often be accomplished by changes in mike position.

Some lines demand sudden changes in volume—a shout of fear, a glad cry of joy, a quick whisper. Since, in all probability, the mike distance will have been set for normal volume, an adjustment must be made. It is seldom made in the control room because the volume dial can't be turned fast enough. Usually the actor makes the adjustment under the guidance of the director. Never shout into the mike. If you have a line which must be shouted, turn your head so that the shout goes off to the side. If it's still too loud or sounds off mike, the director will stop the rehearsal and experiment. You may be able to move back and shout up toward the ceiling without sounding off mike or blasting. It's also possible that you're using too much breath. You can get the rounded projection of a shout without expelling a tornado of breath. Don't push your voice out with the force of your breath, but project it from the roof of your mouth. You'll still use breath, but you won't shake the mike.

A decrease in volume from normal to low can usually be picked up by the mike without a change in position, as can most whispers. Some actors unconsciously lean forward when they whisper or speak in a low, confidential tone, upsetting the balance of levels. If you have a whisper or low-volume lines, keep your mike distance. If you can't be heard, the director will tell you and you can either use a little more volume or partially vocalize the whisper. Don't try to increase the force of your whisper by using more breath. It's better to tell the

secret in a hushed voice than to whisper it with so much breath the listener can't distinguish the words.

When you're studying a radio part, avoid an interpretation that would require a lot of shouting and ranting. Underplayed emotion is usually more effective. In radio, an intake of breath can have the effect of a scream. A woman, taut with fear, seeing a dreaded face, can yell "Not you!" or can draw a sobbing breath and in a dead, hopeless voice say, "Not . . . you." A furious dispute doesn't demand loud voices, but angry ones. Sometimes a scene, and we'll use the furious dispute as an example, can't be sustained with intense, low-played emotion, or has a climax that wouldn't make sense without a lot of volume. The bitter dispute could be part of a scene that depends upon the two disputants talking so loudly they don't hear something important to them, or part of a comedy with laugh lines such as, "I'm too much of a lady to shout" which would fall dead unless screamed in the voice of a fishwife. When you're in such a scene, remember that volume is relative, so that loudness or softness is a matter of contrast. If you start low, you can build up to a shouting climax that isn't as loud as it seems. If a scene starts high, you don't have to build in a straight upward line. In fact, you probably shouldn't unless it's a very short scene. Listeners don't like to have anyone shouting in their living rooms for long. The director makes these decisions, but you have to carry them out. Learn to do it without line-by-line coaching. You should be able to work from a brief direction such as, "Hold it down as much as possible until just before the end."

When you're asked for a change in volume while you're performing, keep in mind the following:

1. Don't make a sudden change in volume. Ease up or down and motivate the change with inflection if possible.
2. Don't unconsciously step toward the mike on a "more volume" signal or away from it on the opposite signal. Increase or decrease volume on signal without changing your mike position.

3. Don't decrease your rate when you decrease volume, or vice versa. Watch that you don't project with more volume or hush your voice if it's a line to be read as normal speech. There is a range of volume within normal speech.
4. If you're asked to bring up a whisper, partially voice it. If you're asked to bring up a mutter or other low-volume line, or to tone down a shouted or other high-volume line, don't switch to normal speech. Keep the mutter or shout quality.

Whenever you're asked to make any change—rate, volume, or mike position—remember these three rules:

1. Don't make it suddenly.
2. Don't let your voice reveal that you're thinking about it.
3. Glance at the director after you make the change.

PAUSES

There is nothing unusual about the use of pauses in radio acting, except possibly that they are used more often than in media where gesture and movement augment vocal interpretation.

A pause often suggests a gesture or a bit of business described in the line. For example, "Let me straighten your tie. There!" In visual mediums, the actor might start straightening the tie as he spoke the line, and though he would probably pause before saying "There!" it would be to step back and survey his handiwork approvingly. In radio, the listener can't see you perform such an action, but that doesn't mean you read the whole line straight off. As soon as the listener hears you say you are going to straighten the tie, he imagines you doing it; if you say, "There!" immediately, you indicate that the act he is just beginning to imagine has already been completed. The pause before "There!" should not be long enough to perform the action, but it should be long enough to let the listener imagine it. He won't know what you're straightening until you say the

word "tie," but his imagination makes the action retroactive, in a sense; a brief pause gives him time to picture it.

However, you do not pause every time an action is indicated in the dialogue. It depends upon the line, the action, and whether or not you can suggest this action with your voice. For example, "Oh, the book! If I can just reach the top shelf, I'll get it now. Ah! Here." Before the end of the line the listener knows you're going to try to get a book from a high shelf, and if you put effort and strain in your voice about the time you say "reach," he visualizes the action during the rest of the line. The "Ah!" tells him you've got the book, and the only pause you might use would be a catch of breath before "Here."

When an action has an accompanying sound effect, it is usually heard with the line that identifies it. The director cues both line and sound. Most action pauses are also taken on cue, but reaction pauses are up to you.

A reaction pause is short, usually; a breath pause. In a visual medium you wouldn't think of it so much as a pause as a reaction—the expression or gesture that indicates surprise, for example.

However, reaction pauses must be used judiciously because they slow down dialogue. They are seldom used before a line, and most scripts are written so that they aren't needed. For example, a character is stunned by news he has just heard. In a medium where his reaction could be shown visually, there might be a long pause before he says anything. In radio, he'd probably reply immediately, but the first words of his line would be a stunned repetition of the news. The suggestions listed below will help you to use pauses effectively:

1. Pauses must be meaningful to the listener; if the dialogue describes action he will visualize, give him time to do so if your voice or a sound effect can't picture it for him. Never pause unless the content of what you say or the way you say it gives him a clue to action or reaction; he

will not imagine stage business that isn't suggested by words, nor reactions that are not indicated in the voice.

2. Avoid pauses in a line to be faded on or off; the listener is following you by the sound of your voice. If a pause is required, stop your movement to or from the mike during the pause, so that when you speak again, your voice level is not suddenly much closer or farther away.
3. When you're asked to speed up lines that include action pauses, don't omit the action pauses or shorten them beyond the point of credibility.

INFLECTION

Inflection is basically the same in radio as in any other medium, but the sensitivity of the microphone permits great variety and the uses of unusually delicate and subtle voice effects. When you make a mental portrait of a character, be sure it's not a silent picture; think of his voice. Voice is affected by personality, physical condition, emotional state, and environment. Even if your character is one who would probably have "just an ordinary voice," remember that every voice is individual and that the microphone registers the minor differences. It's unwise to use a voice quality that is a strain to maintain, but you can suggest character with small changes in your volume, rate, pitch, inflection, and phrasing.

When you work on interpretation, you want first to understand the meaning and the dramatic purpose of each line. The oftener you go over a line, the more opportunities you'll find for revealing meaning through inflection. The change in pitch or tone of your voice can indicate what you are thinking, feeling, or doing. Whether you lift your eyebrows or a hundred-pound weight, your voice changes.

Changes in inflection are and must be motivated. Whether the motivation is physical or emotional, the change is primarily muscular, even if it's no more than the stiffening of neck mus-

cles in tension. It's difficult to change your inflection without actually making the muscle changes in some degree.

For example, if you are to sound as though you are lifting something heavy, you can broaden your stance, strain the muscles of your legs, torso, and one arm without altering your mike position. You can run in place, but barely lifting your feet from the floor, if you want to sound as though you're running; you can jog the upper part of your torso as though you were riding a horse. Whatever you can do with posture or movement, without altering your mike position or making unnecessary noise, will help you.

If it's a matter of just lifting an eyebrow, lift it. Changes in facial expression are muscular, too, and change your inflection. It's sometimes fun to read an intensely emotional line dead-pan, but it's difficult to feel an emotion and not to show it facially, or to show it facially and not to have your voice reflect it.

PROJECTS FOR SELF-IMPROVEMENT

1. Assume the posture and expression of someone intensely angry, barely able to keep from striking another. Note how muscles are affected, paying special attention to those in the upper torso and neck. Then stand as though you were at the mike, with a script in your hand; duplicate the muscle changes in your upper torso and neck, making a fist with one hand and saying an angry line such as "Get out! Get out before I lose control!" Then say the line with relaxed posture, trying to do it all with just your voice. If possible, tape record both so that you can hear the difference as a listener would. Do this with fear, fatigue, triumph, relaxation, and so on.
2. Choose a simple, enigmatic line such as "I'll get it for you" and say it as an admission of defeat, then hesitantly, scornfully, gaily, tensely, and so on. Again, tape record yourself if you can.
3. Using the same line if you wish, read it with two suc-

cessive and contrasting emotions as though, while you were speaking, something happened that changed your emotion. For example, as though you were a submissive servant who meekly says, "I'll get—" and then sees something that terrifies him so that his voice is taut on "it for you." Or a character struck by a bright idea in the middle of the line, or by a change in emotion, such as amusement or pity. Try various combinations: from relaxed to tense; normal to hate; puzzled to assured; brisk to affectionate, and so on. Be sure the line you use is short so that the change must be shown quickly.

4. Read radio plays and rehearse yourself in four parts, varied in type. Tape record yourself reading several lines from each part, about a page or so, with no break as you go from part to part. When you play the recording back, see if your voice reveals character differences or only emotional differences.
5. Cast, rehearse, and tape record, if possible, the following scene. It is written to illustrate various levels, fades, and tempos, to emphasize the contrast between stage and radio delivery, and to give practice in changing volume, rate, pause, and inflection. The characters are Mary, a young actress, John, a young actor, and the director, who can be played by a man or a woman. If you do not have studio facilities, you can produce the scene at home with a tape recorder, and though you will not be able to achieve perfect levels, you will be able to understand the problem of balance. If you put on the scene at home, concentrate on line reading, to create an imaginary picture of young actors rehearsing a rather bad melodrama.

Rehearsal

DIRECTOR: I don't care who's at fault, Mary!
MARY: If John could time his entrance. . . .
JOHN: (INTERRUPTING) For the love of. . . .
DIRECTOR: (INTERRUPTING) That's not the. . . .

JOHN: (GOING RIGHT ON) How long can I wait after I've called from off stage? The whole audience. . . .

DIRECTOR: (TOPPING) The whole audience is waiting to see if Mary can hide those pearls before you enter. And I've decided to change it.

MARY: Change it? But. . . .

DIRECTOR: Reginald surprises you by coming home early, and I want to try you, I mean Selina, not hiding the pearls.

MARY: But everything depends on Selina thinking she's fooled Reginald!

JOHN: If she doesn't hide the pearls, the scene doesn't make sense!

DIRECTOR: Look. It doesn't matter whether you're entering too fast or Mary's slow on her turn, but let's face it. It's not coming off. And I think it may be too pat, anyway.

JOHN: That's bothered me as much as anything.

DIRECTOR: Now, if Lady Selina looks frantically about for a hiding place as soon as she hears Reginald call, but has them behind her back when he enters. . . .

MARY: I see it! Like this.

DIRECTOR: Yes. And then you don't hide them behind the books at all. You slip them behind the pillow on the couch when you sit down and say, "Darling, I wouldn't keep anything from you."

MARY: (DELIGHTED) Oh, that's wonderful!

JOHN: (WORRIED) Doesn't it take the scene from me?

DIRECTOR: Let's try it.

MARY: (FADING OFF) O.K. I'm at the fireplace. (SLIGHTLY OFF MIKE) Come on, John! You're at the door.

JOHN: (FADING) I'll try it, but I have my doubts. (OFF MIKE, A LITTLE MORE SO THAN MARY) You want my first line?

DIRECTOR: Please. And, Mary, the moment he speaks, the pearls behind your back.

MARY: (SLIGHTLY OFF, AS BEFORE) O.K.

DIRECTOR: Your line, John.

JOHN: (OFF, AS BEFORE, AND AS REGINALD, PROJECTING) Selina? Oh, there you are! (AS JOHN) Look, the other way, I let the audience know I'd seen the pearls by the way I started when I said "Oh!" (CONTROLLED SURPRISE IN THE "OH") "Selina? Oh! There you are."

(AS JOHN) I don't know how. . . .

MARY: (SLIGHTLY OFF) Can't we try it, at least?

JOHN: I'm just pointing out. . . .

DIRECTOR: You can do it just the same way, John. Reginald still sees the pearls, only Selina doesn't know it. Now, please, let's try.

JOHN: (AS JOHN) All right. (AS REGINALD) Selina? Oh! There you are.

MARY: (AS SELINA) Reginald! What a surprise!

JOHN: (AS REGINALD) I could not stay away from you another day.

MARY: (AS SELINA) How sweet, my darling!

DIRECTOR: Don't just stand there, Mary!

MARY: (AS MARY, SLIGHTLY OFF) What can I do, with those pearls clutched behind me?

DIRECTOR: You don't have to clutch them. Turn slowly when John says, "Selina" and. . . .

MARY: (SLIGHTLY OFF, INTERRUPTING) Stretch both hands toward him and hold, don't clutch, the pearls in my third hand?

DIRECTOR: Let me finish, will you? Now, stand at the fireplace looking at the pearls. That's right. O.K. You've just heard Reginald call. You look about for a place to hide the pearls. That's right. Suddenly Reginald is at the door, you turn toward him . . . that's it . . . the pearls are in your upstage hand, it goes behind you and you can bring your other hand up. . . . No, no, not consternation!

MARY: (SLIGHTLY OFF, ANGRY) Well, then, what?

JOHN: (FADING ON) Look, she's turning this into a comedy routine.

MARY: (FADING ON) Well, if you think I won't get laughs, sidling about with those pearls behind me. . . .

JOHN: (TOPPING) If you play it for laughs. . . .

MARY: (TOPPING) Are you suggesting that. . . .

DIRECTOR: (TOPPING) All right, all right, all right. We'll hide the pearls behind the bookcase as before.

MARY: (SHE REALLY WANTS THE COMEDY ROUTINE) Oh, let me try the other again. I can. . . .

JOHN: (HE KNOWS SHE WANTS IT) Uh uh. That sidling about. . . . They wouldn't be laughing with you, Mary.

DIRECTOR: Let's just say I was wrong. Rehearsal's over.

CHAPTER FIVE

Television and Radio Announcing

ACCORDING TO a veteran network announcer, Harry Von Zell, good announcing is never just superficially effective performance but, like good acting, is convincing only if the announcer understands and believes in the value of what he says. Announcing is, in fact, a form of acting, and its success depends far more upon projecting a personality than a voice.

As in all forms of broadcasting, a mellifluous voice is unimportant; the illusion that an announcer is only a voice is a carry-over from the early days of radio, when an unidentified voice formally announced programs and their various sections, simply bridging the gap between features. When sponsors appeared, this unidentified voice presented a talk in behalf of the product, becoming a sales representative in addition to being a formal announcer. Astute advertisers soon realized that sales effectiveness was largely lost if the commercial was delivered by an unidentified voice which interrupted the entertainment from time to time to "talk shop." They looked for ways of making the voice part of the program, no longer referring vaguely to "your announcer." The unidentified voice became a name, and announcers developed individual styles, projecting personality into what had been merely sales talk.

This, in turn, led to the integrated commercial, with the announcer worked into the plot and dialogue of the program, and to the highly personalized formats of many disk jockey record programs. The announcer became a featured performer.

Most announcers serve in at least three capacities: They are performers, salesmen, and to a large extent, representatives of their station or network. In small stations, their functions are multiplied, and a large share of performance is of the early-day, unidentified voice variety. A single announcer, in a small station, may serve sometimes as a voice introducing a program, and, during his shift, as a disk jockey, a newscaster, and a master of ceremonies; he may also write continuity, prepare and direct programs, operate equipment, and represent sales for a variety of products advertised in spot and program commercials.

A television announcer is sometimes only an off-screen voice, but if he is the feature announcer of a program he is part of the performance, not necessarily with an integrated commercial but with an act of his own. The television announcer must be a good actor; the all-revealing eye of the camera clearly shows up phoney sincerity, tenseness, and artificial presentation. The voice is unimportant in television announcing, but the television announcer has taken on the actor's function of swaying the minds and emotions of his audience by the honesty and sincerity of his performance.

PROFESSIONAL REQUIREMENTS

A staff announcer works on salary with, except in rare instances, additional fees for sponsored programs. Free-lance announcers are usually established professionals who do feature programs under contract and no longer need the security of a salary, with its attendant routine chores of station breaks and spot commercials. Most staff announcers try to develop and to market feature programs, through either the station sales de-

partment or an agent. One of the chief requirements of announcing, consequently, is a creative imagination.

Imagination. Imagination is essential for developing new programs and for effective performance, but in staff work, it is necessary for varying copy and content of programs planned and written by the announcer; for injecting life into a sustaining program so that it can be sold; and for meeting the emergency situations that sometimes occur—the remote line that goes dead, the speaker who comes late, and, in on-the-spot reporting, the events that don't go off on schedule.

Natural Enthusiasm. In staff work, an announcer is professionally enthusiastic hour after hour. He is on demand as a freelance performer, but without a natural enthusiasm his performance is simply punchy and staccato.

Frequently, an announcer is called upon to serve as master of ceremonies for an audience broadcast. He is host to the studio audience and announcer for the program at the same time. The techniques of handling an audience are ineffective unless the announcer himself has the enthusiasm he tries to generate.

Liking for People. To perform, it's enough to understand people, but to sell, and to work day by day with people, one has to like them. An announcer is always either part of the program or part of a staff, and has to work harmoniously with others. But, more important, the announcer is always the friendly performer, and the warmth of friendliness comes easily if it's based on a genuine liking for humanity.

Sincerity. Insincerity is more evident on television than on radio, but all the arts of salesmanship and broadcasting cannot compensate for the insincere voice any more than for the insincere smile. An announcer's sincerity is not a crusader's belief in the product he's selling; in a staff job he may advertise a competitor tomorrow. But he needs a conviction that what he is saying is neither distorted nor in bad taste; some announcers tone down copy that goes beyond what they could say with sincerity, knowing that an unconvincing, extravagant claim is

less effective than a more modest, sincere one. Some feature announcers make a point of finding out as much as they can about the sponsor's product, so that they will, in a sense, be sold on it themselves.

Concentration. In television, particularly, the ability to concentrate is essential, because copy must be memorized and rehearsed quickly and efficiently, and to direct it at an unseen audience in the midst of the unrelated activities of other performers and technicians requires a sharp focussing of attention. To be easily distracted is to lose contact with the message or the audience, or both. In radio, particularly in staff work, an announcer is often his own director, watching the time, cuing the operator on record cues (or in small stations, running the records himself), and broadcasting at the same time. He must be able to concentrate on what he is saying, pushing other concerns out of his mind until the moment comes to act upon them. In sportscasting or in any other remote broadcast, the announcer, on any level, broadcasts in distracting circumstances and must concentrate on what is important in the event; in all studio broadcasts, he is expected to keep that sharp focus of attention on his part of the program whether he has multiple activities, whether he is sharing the mike with the performer who follows him, or whether he is talking against the enthusiastic applause of a studio audience.

Ability to Relax. During broadcasts, the intense concentration of energy for short periods of time is hard on the nervous system. If tension accumulates from announcement to announcement or program to program, loss of poise and assurance results. The ability to relax between broadcasts—without worrying over the last program or the next—is essential to the confident, easy manner of a good announcer.

In covering special events—elections, local disasters, out-of-town sports events—announcers are often on duty until late hours in tense or exciting circumstances. The ability to relax helps an announcer to keep tension under control in spite of personal fatigue and the tension of the general atmosphere.

Good Health. That the announcer be in good health is essential. The strain of irregular working hours—from the occasional nighttime or early morning broadcast to the all-night shift—and the nervous tension of the work demand a strong, resilient physical condition. In addition, voice and appearance are affected by health. The timbre of a voice, its vitality, and degree of color are influenced by physical condition; the general tone of skin, the alertness of eyes, and ease of movement are affected by the physical condition. For the television announcer, conventional handsomeness is probably a disadvantage, if anything, but a wholesome physical appearance is vital.

Broad Experience. A well-rounded background, real and vicarious, with experience through books, contacts with people, and personal adventure helps an announcer meet the enormously varied situations his work imposes. The richer and more varied his personal contacts, the closer acquaintance he has with the types of people who make up his audience.

TRAINING FOR ANNOUNCING

An announcer is constantly a guest in people's homes, serving as a salesman, as a reporter or as a master of ceremonies. Because he is an influence on many who see or hear him, he must be a good citizen. He cannot by word or inflection offend a minority group; he must keep an open mind and a fair attitude on everything from sports to politics.

In general, though the announcer does not editorialize, his work demands some personal knowledge and information about each subject he covers, be it a wrestling match or a symphony concert. Basic training for an announcer involves a varied and broad education that includes history, political science, literature, the arts, and at least a spectator's knowledge of several sports. No one could be an expert in all these areas, but some early excursions into them make it easier to find information when it's needed for an assignment. A good liberal arts education in college meets the requirements, but though the national

networks prefer college-educated personnel, a degree is not a requirement. The knowledge, however it is gained, is essential.

A variety of special training is needed. Courses or training in acting and public speaking, with a general knowledge of all the theater arts, is probably a first requisite, and should include a maximum of public appearances as an actor and speaker.

Courses or training in advertising and sales promotion and a thorough understanding of the business side of television and radio help an announcer to fill his curious role of both salesman and performer.

A knowledge of languages is particularly useful for news, music, and special events programs, and is valuable in itself, as an extra-cultural dimension.

Probably there is no better foundation for an announcer than a college education, with the special emphasis mentioned, plus experience in a small station, where an announcer is a general duty staff member.

THE ANNOUNCER'S WORK

The general duties of an announcer are more or less outlined in the descriptions of training and qualifications, but we can narrow it down to jobs and individuals. Suppose, for example, that you have the general training and qualifications; how can you get that first all-round job?

The field is highly competitive and though generally an announcer has greater security than an actor, the hazards are the same: announcing is judged by the effectiveness of performance, and the effectiveness of performance is judged by sales. Your first job of salesmanship is selling yourself.

Networks and most large stations have periodic auditions for announcers. Procedures vary, but you can find out when auditions are held, what, if any, are the requirements, and how to get your name on the list. In small stations, auditions are usually held only when there is a vacancy, and in most small

cities, very informally. Your first contact with a local station manager to inquire about audition procedures is his first and sometimes his most lasting impression of you. If you sell yourself aggressively, cleverly, and persistently, you will probably never be called back. The announcer, as a salesman, is convincing rather than persuasive, forceful but friendly, tactful, and sincere. In job interviews, announcers are evaluated for these qualities and for personality. The announcers's broadcast performance is not an act but a projection of his natural personality, and in the many situations where announcers represent the station to the public, their manner—and their manners —are important.

In small cities, a station manager may give you a special audition, and put your name on a list for future reference. Often there's no point in auditioning a newcomer because the list is overflowing with names and there are no vacancies. But usually there's room for a new sponsor. If you can develop an idea for a low-budget series tailored for a specific audience, the station manager may turn it over to the sales department with the agreement that if it is sold, you will announce the program and be paid the talent fee, if there is one. However, you can't live on the talent fee for one low-budget program, so you must have another source of income.

A program idea should be presented by an audition record of a sample program, with a detailed presentation on paper of purpose, estimated costs, and outlines for twelve additional programs. This is something you undertake on your own, finding materials, working with friends if necessary, producing and directing the program yourself, and recording it either on tape or disk; in most cities there are commercial recording firms who rent studios and equipment by the hour.

Many large stations request an audition record as a preliminary to general auditions—a recording of a series of varied types of continuity, such as those listed in Appendix III; at the regular auditions, new copy is distributed to be read with a minimum of rehearsal. Experience in reading various

kinds of copy and in developing and recording programs is essential training.

The following projects are planned to duplicate the experience of preparing auditions. The requirements are good, standard broadcast speech and the ability to understand the purpose of specific copy, to read it with interest, meaning, variety, and emphasis, and to time programs accurately. Do not assume a colorful style; style develops with experience and should be individual rather than imitative.

1. Prepare and rehearse the announcer's copy in Appendix III, pp. 249-250, and record it on a single disk or tape. Give your name at the start, and go from item to item with only a pause between each. There should be a noticeable difference in the reading of each item, according to its purpose, written style, and content. Play back and evaluate your audition.
2. Analyze the music programs on the air in your local area and develop a simple program idea that has an original twist and local appeal for a specific audience group, built around a type of music, certain orchestras, local best-sellers, featured performers, some local, special interest, or anything that does not duplicate existing programs. Prepare and record a sample program, timed to 14:30. Write a presentation describing the audience appeal, indicating availability of records, and outlining three additional programs.
3. Analyze the nondramatic feature programs in your community and develop an idea for one suitable for television or radio, taking advantage of local personalities, interests, or traditions. Prepare a sample program, timed to 14:30, and a presentation.
4. Choose two of the commercial spots in Appendix III and work them into your record program and your feature, cutting and revising so that both still time to 14:30.

TYPES OF ANNOUNCING

At the beginning, particularly, announcers are expected to go from the cheerful morning wake-up program to the sober newscast or the exciting on-the-spot report, quickly adapting to the mood and purpose of each. Each commercial has its own style and specific directives to punch it or milk it. However, if you can read copy in good broadcast speech, with spontaneity and variety, you can adapt to any type of announcing, not always with equal effectiveness perhaps, but at least with satisfactory results. Eventually, most announcers develop a specialty, but you can't choose a specialty unless you can meet its personality and training requirements. Some of the major types of announcing and their requirements follow:

News. The standard summaries that come over the news service wires can be quickly edited and prepared for broadcast, but a feature news program is put together from individual wire news stories (sometimes from several wire services), edited, and rewritten into an interesting and tightly timed newscast. Often original reporting is part of the job, and though a large station or network has a staff to prepare news, a feature newscaster is usually the creative force behind his program. Flexibility and adaptability are particularly important because news events don't happen on schedule; the big story may break five minutes before air time, and the newscaster revises his prepared cast and adjusts during the broadcast if more details are brought to him.

The more he knows of the background of the news, the more color and information he can include; it is only in these details that one newscast differs from another. It can't be a feature if it's routine. A feature newscaster, then, needs the reporter's nose for news, a journalist's preparation, a quick mind, the performance skills of radio or television, plus a personality with impact.

Special Events. The special events announcer is the on-the-

spot reporter whose performance is always unrehearsed. To a degree, he can outline and prepare in advance but when the activity starts, he's on his own and must meet each situation as it occurs. He is so often dependent upon the cooperation of strangers—from the spectators he interviews or tries to keep from blocking his vision to the officials with whom he arranges the broadcast—that an agreeable and forceful personality is basic. He needs a reporter's eye for the significant, a high degree of concentration, initiative, the ability to adapt to momentary changes, plus verbal fluency so that specific and vivid words come immediately to mind and in a second, on a director's cue, he can switch from report to a smooth conclusion.

Sports. The sports announcer's requirements are identical to those of the special events reporter, except that he needs a specialized background and acquaintance with all types of athletic events. Two of his chief assets are an intense interest in sports and a reliable memory—although he has spotters and assistants, while he reports a game he is constantly summarizing its progress.

Interviews, Panels, and Discussions. The announcer who eventually becomes master of ceremonies for unscripted feature programs needs the qualifications of a special events reporter plus the personality impact of a feature performer. His program is carefully planned and partially rehearsed, but he guides it moment by moment, quickly taking advantage of a new interest factor, or adjusting to the unexpected change—the participant who is suddenly mute, the contestant who breaks a rule, or the quiz that goes faster or slower than anticipated. He has the aid of a director and assistants, but he must meet the unexpected, always with tact, good humor, and precision. A ready wit is an asset; leadership and experience in the live audience situation essential.

Narrator. Dramatic narration is a combination of acting and announcing. Usually the voice that accompanies the travelogue, the short feature film, the special tribute program, or that links together the parts of a play is that of an actor or an announcer

who has developed a special narrative skill. He needs all the qualifications of an actor and works closely with a director. Versatility, an understanding of theater, and an individual voice personality and style are specific requirements.

Music. The disk jockey is a personality performer with a flair for programming popular music; he is a studio announcer, and his special requirements are inventiveness, originality, an ear for music, and, obviously, the ability to project an individual personality.

Classical music, because it is programmed so seldom, is usually handled by staff announcers. Occasionally an announcer with a background in music becomes a music commentator or a classical disk jockey. His chief requirements are an understanding and genuine appreciation of serious music, and acquaintance with its history and development, and enough musicianship to program it effectively. Sometimes he is called upon to announce live music remote broadcasts, and consequently needs the requirements of a special events broadcaster.

ADDITIONAL REQUIREMENTS FOR TELEVISION

The particular requirements for the types of programs mentioned are the same for television as for radio. The tendency among networks and jointly owned radio-TV stations is to consolidate announcing staffs, developing radio-TV announcers. Some radio announcers are able to step into television with little difficulty. The visual aspect is not their responsibility; they work under and with a director. But they need to be at ease before the camera, to eliminate mannerisms—the bobbing head, or the raised eyebrows, for example—and to talk in a direct and friendly fashion. The good announcers, who do not depend on tricks of vocal technique, have few mannerisms, and those who have taken part in audience participation programs have already adapted to visual presentation and unscripted performance.

Similarly, sportscasters and special events announcers have

always spoken extemporaneously, and are off-screen for a large part of the broadcast; their principal adjustment is in not over-describing and in keeping contact, through monitor sets, with the picture the audience sees.

Narrators and music announcers are usually off-screen for most of or all a television program, working from a script under direction, in a performance situation that is more tense than radio but otherwise little changed.

WOMEN AND ANNOUNCING

Television offers women more opportunities in announcing than does radio, though as performers in home programs, women have served as announcers, interviewers, newscasters, special events reporters, and m.c.'s. They have the same opportunities in television, but with the success of some women as announcers of commercial copy, the field is considerably broadened. The requirements for women are the same as for men, with more emphasis on personality and acting ability.

THE AUDIENCE SHOW

The people who file into an auditorium studio to watch a broadcast are like any theater audience—a little restrained at first, and, until the entertainment is under way, not a warm, responsive unit but a number of individuals who hope it's going to be interesting. The announcer frequently has the job of warming up the audience before the broadcast so that when it goes on the air, everyone is relaxed, ready to laugh and applaud without restraint. Enthusiasm in an audience is contagious, spreading from individual to individual in the auditorium, and to the home viewer, or listener, who identifies himself with the audience.

Warming up an audience does not require the announcer to put on a one-man show; the jokes are for the program. Rather, he finds ways of establishing a sense of participation,

but he can't start out by assuming that this audience is like the last he faced. It may be slower or faster to respond; most people are timid about drawing attention to themselves, and some of the techniques for getting participation and movement won't work until some of the initial restraint has worn off.

The warm-up usually starts with some remarks about the program; this is the announcer's chance to get the feel of the audience; from then it's up to him. Asking for a show of hands by states, birthdays, foreign countries, and so on is standard practice; singing familiar songs—"Happy Birthday" for those whose birthday it is—brings the audience together. Anything that will start a good-humored, contagious reaction is recommended, as long as it is in good taste. The announcer must have a maximum of audience awareness, and only experience provides it. However, it need not be experience with studio audiences; anything from song-leading to acting in performances will do.

The following projects are planned to give partial experience in the warm-up and some of the other activities of announcing.

PROJECTS FOR SELF-IMPROVEMENT

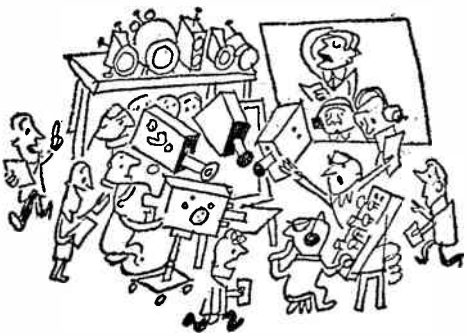
1. Try to get a genuine audience participation started, giving yourself 15 minutes to warm them to the point that they will enthusiastically sing an appropriate holiday song, a popular hit tune, or something like "Ol' MacDonald Had a Farm."
2. Make arrangements, if possible, to get old, unused run-off from the newswire of a local station. Cut it to workable lengths of paper and divide it into morning, afternoon, and evening units. Prepare an early morning five-minute summary; a noontime fifteen-minute complete news feature; a ten-minute 5 P.M. cast; and a ten-minute late evening summary. Include two of the commercials in Appendix III in each unit, and tape record, timing exactly.
3. Cover a community event to get material for a local story that would not be found on the wire; get names and oc-

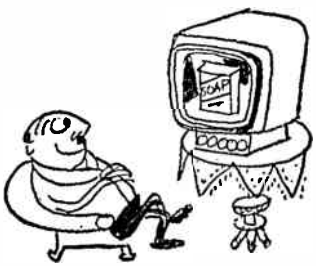
cupations of planners and participants, and all the color you need for a human interest feature. Write it for a one-minute, a two-minute, and a three-minute item.

4. With a portable tape recorder, go to some local outdoor event, and record an on-the-spot report. Play back and evaluate for color, interest, and comprehensibility.
5. Prepare a half-hour afternoon nondramatic program for women, including a quiz or contest, and varied content. Adapt it to radio and record it; adapt it to television and perform it with an audience.

PART II

Writing and Directing for Television and Radio





CHAPTER SIX

Broadcast Writing

THERE IS a difference between writing for television and writing for radio, but it is not so great as the difference between writing a play and a newscast. Writing is adapted not only to a medium—platform, microphone, camera, or printed page—but to an audience and to a purpose—to inform, to sell, to entertain. The purpose of a script and the audience for which it is intended have far more effect on writing than does the medium, and hour by hour, television and radio offer programs of similar purpose to the same audience.

The rather careless use of the terms "radio writer" or "television writer" implies that mastery of the techniques of the medium is a separate process which turns out an all-round script writer equally adept at dashing off a commercial spot or whipping together a children's program. But writers are specialists in entertaining or selling or informing, and in television and radio they must be specialists in meeting very narrowly defined market specifications. In the over-all picture of writing for broadcast to a mass audience via a medium used primarily for advertising, the difference between radio and television presentation becomes a detail.

THE MEDIUM AND THE MARKET

Television and radio use most of the forms of writing, adapted to meet several requirements of mass communication:

(1) to take into account the family listening group, where children are likely to be part of the audience for any program; (2) to offend no racial, religious, national, occupational, or physical minority group; and (3) but of major importance, to appeal to the largest possible audience. Both television and radio have formal, self-regulatory codes[1] which sum up to good taste in contact and presentation.

Market restrictions, however, cannot be described so generally. Broadcasts are presented in series, and each series has individual specifications, planned to attract the largest number of possible consumers of the sponsor's product. Daytime television and radio series are tailored for specific segments of the audience of women; to housewives obviously, but, depending upon the sponsor's product, to young mothers or to wives of low-paid workers, and so on. The series appeals to a wider audience, but the content is specifically directed to the probable interests of the group for whom the commercial is written. The same is true, of course, of all programs, day and night, though by far the largest number are sponsored by firms whose products are generally used—foods, soaps, smoking materials—and are directed to a more or less general audience.

The specifications of a series, then, are determined in part by the audience the sponsor wants to reach. The budget, the availability of talent, and the time limit of the program are additional factors which determine its final format; final specifications are usually a combination of sponsor intuition, agency audience research, and budget restrictions. They are worked out in detail, and set the pattern for each program—a pattern changed only on the basis of program rating surveys. If the popularity rating of a program declines, the writers are as likely to be changed as are the specifications. A sudden rise in popularity usually is followed by agency analysis of programs to find the magic formula. One daytime serial, for example, which had been slowly dying was given a new writer and director in a last hope to revive it. Within a few weeks, audience

[1] See Appendix II, pp. 243-247, for excerpts from the NARTB Code.

ratings zoomed. The writer and director felt that it was because they had, together, created a warm and human central character; the agency, however, after scrutinizing scripts decided that ratings had gone up at the time the central character began, as an incidental part of an episode, to eat hard candy; specifications for that and similar series, from then on, included candy-eating for the central character.

Because specifications for each series are so detailed, most radio and television programs are written on assignment by a relatively small number of writers. There are a few open-market series, but many producers will not read scripts unless an agent or a known writer submits them. Networks and agencies are flooded with unsolicited scripts, but only a few are adapted to the medium and general market restrictions, and none, usually, to the specifications of any series.

In both radio and television, writing is a closely directed, not a freely creative, profession, and it imposes conditions that require specific personality qualifications.

THE PROFESSION

In small radio stations, writing is often part of another job; the salesman writes the advertising copy, the announcer his continuity, the news is torn off the wire and quickly edited by the broadcaster, the disk jockey and all other performers prepare their own scripts and often a share of the continuity. But generally, staff writers in stations, networks, and agencies work in one area only—news, commercial copy, or continuity. Staff work generally is tedious and low-salaried, compared to assignment or free-lance writing, and most staff writers try to do outside work.

Since most drama, variety, and feature programs are written on assignment, free-lance writing is limited. In small cities, few stations have production departments; most of their programs originate with networks or agencies. And in the cities where the networks and agencies originate programs, the competition

is intense. The known free-lance writers are given the assignments when new series originate, and compete with the unknown writers for the very few open-market series.

How to enter the profession depends upon the field of writing. A staff job in a small station is a reasonable beginning for a continuity or commercial copy writer. But most writers who are interested in television or radio want to write plays or comedies or variety programs, and the staff jobs open to them in the average city are dead ends. Theoretically, a writer can be a thousand miles from the market and mail in scripts to the open shows, but actually, scripts are rewritten and revised in production, and writers work closely with directors. None of the big shows are open market, and the only way to get an assignment is to be known through success in some other medium, or, through whatever means possible, to persuade a network or agency to read your scripts and hope for an assignment as junior member of a writing team.

QUALIFICATIONS

The unknown writer has a hard time breaking into television or radio because the known writers have proven not only their talent but also their ability to withstand the tension of working under a series of deadlines. Not all writers can work under pressure, but all radio and television programs are written to daily, weekly, or bi-weekly deadlines, and rewritten to deadlines often only hours away. The ability to write well is the first qualification, but it must include the ability to write well under pressure.

The ability to take criticism, important in any medium, is paramount and means more than not sulking; taking criticism means understanding it well enough and quickly enough to carry out suggestions in a given period of time. Flexibility in making changes to meet specific situations, cutting a script or rewriting part of it to include a specific reference or line, is essential, as is a general adaptability and resilience.

In all forms of radio and television writing, the ability to write briefly is fundamental; briefly, clearly, vividly, with an ear for ordinary speech and an understanding of what interests ordinary people.

To these general qualifications, the newswriter adds an understanding of local, national, and world events; the advertising copy writer, an understanding of what persuades people to buy; and the comedy, drama, variety writer, an understanding of theatrical effectiveness. All forms of radio and television writing should be dramatically effective, whether in drama form or not; a sense of drama for writers of the programs misleadingly called "nondramatic," and a sense of theater for writers of dramas is a final but basic qualification.

TRAINING

You can't learn to write except by writing, and any writing course or writing experience is helpful. But the type of training varies so much according to the writing form that there is no general training for radio and television.

For newswriters, learning to write should be accompanied by the study of political science, government, and history, and experience on newspapers; for advertising copy writers, study of business, consumer research, and advertising practices, and experience in any sort of advertising department; for writers of children's programs, the whole world of children's theater and literature and experience in story-telling to groups of boys and girls; for the dramatist, courses in short story, playwriting, and all forms of creative writing, and experience in as many kinds of theater as possible. Even where radio and television writing courses are available, these studies and experiences should supplement them.

General experience, of the sort described in the chapter on radio and television acting—learning to become aware of the people around you, the way they talk, react, what motivates them, and what entertains them—is fundamental.

Practical experience on any level in radio or television is helpful; to a certain extent you can understand a medium through studying, observing rehearsals, and analyzing broadcasts, but actual experience is the best, possibly the only way, of understanding the market-medium combination.

However, there are ways of learning some of the fundamentals, and the following projects are planned to define, at least, the outline.

1. Examine the program logs listed in daily papers or trade magazines and compare what is on all stations between, say, 10 and 11 A.M.; 2-3 P.M.; 5-6 P.M.; and 11-12 P.M. Spot tune broadcasts within those hours and analyze them according to the type of audience they are directed to.
2. Tune in a radio or television station two minutes before the hour and listen until two minutes after the hour, jotting down what you hear, as "end of program," "commercial," "station break," and so on. Repeat at various times of the day, and compare.
3. Choose a program of the type you would like to write. Follow it for a week, if it's daily, a month if it's weekly. Try to determine what its specifications are in terms of content, style, performers, and purpose. Analyze the style of the commercials; what is the product, who would use it, how is it advertised?
4. Read *Variety,* trade, and writer's magazines. Study the changing market needs as described in the various publications. When an open market is listed, write to the producing agency for its specifications.
5. Make a job analysis of radio and television writing opportunities in your local community, going to the various radio and television stations and advertising agencies to find out how many writers they employ and in what capacity. Most organizations do not give detailed information on personnel, but they will describe the general situation.

WRITING COPY

No matter what its content or purpose, copy for broadcast is written to meet the following external requirements:

1. It is immediately interesting.
2. It either builds to a climax, or supplies a frequent change of interest focus, and often does both.
3. It is timed to fill a specific time period.
4. It is written in the vocabulary of common usage.
5. It is written to be spoken, not read, and to sound spontaneous.
6. It is in good taste.
7. It follows a series pattern.

These requirements apply to every type of program, but let us examine them in relation to some nontheatrical ones.

Continuity, for example, introduces and concludes most programs, and in music and variety broadcasts, introduces the various numbers. But the opening announcement does more than introduce; it is written to attract interest in the program, and is itself a miniature talk, adapted to the style of the series. It has an opening, it gives specific information, and builds to a climax, usually the name of a performer or the program title. Its time limit is determined by the format of the program, and its familiarity with the audience—the more popular and familiar the program, the shorter the opening continuity. But it is unlikely that opening continuity for any program would be longer than 30 seconds, unless it included a commercial. All sponsored programs open with sponsor identification, but not necessarily with a full commercial.

Continuity within a program is adapted to the style of the series, is appropriate for the spirit of what it introduces, and points out the interest factor. The closing is usually written around a full commercial, but invites the audience to the next

program of the series. How much and what kind of information continuity contains differs from program to program, but it is always in keeping with the series, in good taste, written in the vocabulary and style of ordinary speech, varied, designed to attract interest, and timed.

The same is true of advertising copy, and of news. Keeping within a specified pattern, news items are selected with an eye to variety, general interest, and drama.

For writers, success depends upon meeting these requirements quickly, not once, but day after day, week after week. To write varied copy is not difficult, but to keep within a series specification and to vary the copy without varying the format, always timing out accurately and working against a deadline, is the special requirement of writing for radio and television. The following projects can test your ability to meet it. Don't worry about script form; it is the least important part.

1. Write continuity for a master of ceremonies introducing the regular singing star of a variety program, and the song to be sung. Time it for 20 seconds. Then write an introduction for the same star for ten succeeding programs, each with a different song, varied, but in the same style as your first, and timed the same.
2. Write announcer's introduction to special guests on a program which each week includes a human interest interview with a distinguished person. Copy identifies the feature, the guest, and his achievement. Write just the introduction for the following: the Mayor; the newsboy of the year; a young woman who set a swimming record; a bankteller who captured a hold-up man; a well-known opera singer; a minister; a grandmother who won $10,000 in a national baking contest. Time each introduction for 30 seconds.
3. Write a 30-second station break advertisement for a cigarette, a used-car firm, a hair tonic, a big national industry. Write 15-second station break plugs for programs to

be heard later: a children's program, a mystery, a variety show, a national event.

4. Write a two-minute appeal for contributions to a local charity drive; write it as though you had been invited to deliver it yourself.
5. Using your local newspaper for source material, write:
   (a) A newscast concerning a survey of national and international events, beginning with a headline summary and ending with a local humorous item; at the end of the headlines and just before the last item, introduce the announcer who reads the commercial. Your newscast is five minutes long, but deduct the two 30-second commercials.
   (b) A local newscast that begins with a short humorous item, and ends with a weather report. Identify yourself and the sponsor at opening and close, break in the middle for a 30-second commercial. Newscast is five minutes long; deduct the commercial. After you have prepared it, cut it by one minute.
   (c) An early morning newscast that begins with the time and weather forecast, includes highlights of national and international events, features local and national sports and one human interest story, and ends with the time, a summary of the weather forecast, and a drive-safely plug. The newscast is ten minutes long; break twice for 30-second recorded spots and deduct from the newscast. Cut your prepared newscast by one minute.

WRITING DRAMA

Radio and television dramas are always in series, sometimes with continuing characters who, year after year, never change, age, or learn from experience. Their situations change, but they never do. Some series are almost the reverse: the characters are different each week, but each story is based on the same

theme. Few drama series present a variety of unrelated stories, with a psychological drama followed by a family comedy and preceded by a spy thriller.

Series specifications outline the types of stories accepted, and list the numbers of characters permitted, the starring roles, and specific taboos. Specific taboos sometimes refer to the audience desired; love stories are preferred by women but seldom by men or children, for example. Some sponsors have pet hates, which go down in the list of specifications, or a sponsor's product may rule out situations which would imply the use of a different product. Specifications also include the format and the division of scenes in reference to the commercials.

Plotting a drama for a radio or television series becomes a matter of starting with the specifications and creating a story around them; you don't start with the story and hope a series will buy it. But no series is interested in run-of-the-mill stories or situations; open-market series reject script after script which nominally fits specifications but is undramatic, or a hash of familiar situations.

A theatrical presentation cannot give drama to undramatic material or life to ancient plots. Specifications for series differ, but the basic requirements of drama do not.

The essence of drama is conflict. In the Western it is often the simple conflict of good guys against bad guys, but it can be man in conflict with himself, as rawly as Jekyll and Hyde or as intricately as Hamlet. It can be man against the elements, from the Swiss Family Robinson to expeditions in outer space, or man against society, Robin Hood or the master spy. In popular theater, the most successful conflict is the simple one—man against man, and if there is a broader conflict, such as man against the elements, the elements usually are assisted by a villain.

The intensity of conflicting forces usually determines the type of drama. When the odds are reasonably even, it's usually straight drama. When the hero wins out against unreasonable odds, it may be comedy or melodrama, and when he loses

against unreasonable odds, it may be comedy or tragedy. For example, a fist fight between a well-matched villain and the hero is an elemental representation of straight drama. A hero winning out barehanded over a hulking brute with a knife is melodramatic; arm the brute with a magic ray gun, knives, pistols, nooses, beartraps, and poisonous snakes and the hero's victory is ridiculous.

The proportion of the opposing forces changes the odds, but there are no rules; the line between drama and melodrama, and between melodrama and comedy is tenuous. The principle of conflict is fundamental, however. There is no conflict between two men sparring for practice; they are exchanging blows but they are not in opposition. There is no conflict in any situation unless the outcome is important to the story, and no conflict if the outcome is obvious.

In drama for radio and television, the conflict situation is usually simpler and more quickly revealed than in other mediums, but in all other respects it is simply good, popular theater, written to specification.

The following projects are planned to give experience in some but by no means all the basic problems of writing broadcast drama.

PROJECTS FOR SELF-IMPROVEMENT

1. In actual practice, you can't write for a series without listening to it to analyze it, even when you know the specifications, but for practice in developing plot situations, work out story outlines for the following:
   (a) A family drama, no crime, no comedy, no adventure. One starring role, and not over five other characters. 15 minutes; one act.
   (b) A mystery built around a gentleman-detective who is the star; he encounters crime, never seeks it. No chases, no gang wars. No cast limit on minor roles, but only two feature parts, one a beautiful woman, in addition to star. 30 minutes; two acts.

(c) A situation comedy, which must be located in or somehow involve a motel; no drinking. Love interest is permissible but must be secondary. Starring parts for one man and one woman. 30 minutes; three acts.

2. Write in ordinary play form, without concern over whether it is for radio or television, the opening scenes of these plots. When you have written it, time it, and decide whether you could write the remainder of the drama to fit the time limit. In any event, cut the opening scene by two minutes.
3. Find a short story whose content would fit the over-all requirements of television and radio, and plot it for a 20-minute drama. Write the final scene, again in standard dramatic form, and evaluate its intensity of conflict. Cut it by two minutes.
4. Follow your favorite comedy or drama series, preferably one with continuing characters, for several weeks, noting the general plot format, number of characters in addition to the regulars, and the usual type of situation. Outline a story to fit the series and write at least five minutes of the opening scene. Do the following with it.
   (a) Cut it by two minutes.
   (b) Lengthen it by two minutes.
   (c) Strengthen the star role; the star has complained.
   (d) Write out a character; the actor was taken ill suddenly.
   (e) Write in a character; the sponsor's niece.

CHAPTER SEVEN

Writing for Television

WRITING for television does not require mastery of a new technique of presentation, as does radio—the only nonvisual medium—and presents no writing problems different from those in the other visual mediums. But, combining the visual techniques of the stage and motion pictures with the time restrictions and intimacy of radio, television requires a unique adaptation which differs from program to program and writer to writer.

For new writers, the fundamental problem is recognition of the obvious: Adapting to a medium is an advanced step in becoming a writer; first comes learning a specific type of writing —news, advertising copy, interviews, comedy, plays. For experienced writers, the problems vary according to their professional background. Those who come from motion pictures and the theater are usually unfamiliar with the market and time restrictions, deadline pressures, and techniques for using an intimate medium, and the writers from radio, who know this, are seldom experienced in techniques of visual presentation.

Writers generally, but particularly beginners, face the more serious problem of marketing television scripts. Television needs no writing skills that are not adaptable to other mediums, and no type of writing that is not marketable elsewhere. But it is a market primarily for popular entertainment, where a joke writer can make a fortune but the poet, the philosopher,

and the literary writer have no place. Anyone whose writing has popular appeal has a choice of many markets, most of which are more open to newcomers than is television; any writer looking toward television would do well to make a general evaluation of all markets.

WRITING PROBLEMS

In Chapter Six, the restrictions of the television market are described as well as three of the writer's problems—writing to time, to specification, and under continuous pressure. But to the writer new to television, these external problems are subordinate to the very elementary one of how to write a script for television.

The television script in Appendix III, pp. 257-263, is in standard form, but script form and technical terms are of no value without an understanding of their purpose. A television script is better written in good stage form than in misunderstood television form, since, as in any visual medium, the writer is not concerned with details of presentation. The words and the picture are integrated, but the picture is planned by the director. The writer's problem in television is not how to direct the visual presentation, but how to conceive and to construct a program adapted to the visual aids and production facilities available, and to the intimate relationship between the home audience and the presentation.

THE HOME AUDIENCE

To anyone familiar with television, our approach to writing for a home audience may seem rather too elementary, but as new television stations go into operation, television is a first-time experience in many communities, and the elementary is not always immediately obvious.

To start, however, with the obvious, the home audience is as close to the performance as they are to the television screen,

a circumstance that imposes a need for realism in writing as well as in performance. Technically the writer has nothing to do with the picture on the screen, but in drama or in any program where he does more than write copy to fit a preplanned picture, he provides the basic materials from which the director works. Unless a director has the time and experience to adapt the program to the audience situation, the best he can do is to adapt the picture; an honest, realistic picture of a patently artificial situation does not deceive the home viewer.

For example, in a series of documentaries of industries, an early program contained an interview with the president of a company, presented as a chance meeting in an outer office. The locale was an outer office of the company, there was no doubt that this man was the president, and, had he been a good actor, possibly the audience would have believed in the chance meeting. But he was a successful executive, not a professional performer, and his awareness that he was acting a part, his wooden attempt to speak as though he had not planned his answers, betrayed the situation.

The home audience expects the real to be presented honestly, and it is in a position to detect trickery through the flicker of an eye. Writers and planners of programs that use nonprofessionals must remember this; any device that puts the nonprofessional performer in an obviously trumped-up situation shows the audience an amateur actor, not a real person, in a performance which is not only inferior but dishonest.

The problem in planning or writing nondramatic programs is how to bring out honest dramatic interest; the audience is not fooled by the devised situation, nor by pretentious copy or over-elaborate formats. The most effective nondramatic programs take advantage of the intimacy of the medium by letting the performers establish a direct and simple relationship with the viewer, whose interest is in personalities as well as content.

Some types of nondramatic programs—discussions, talks, interviews—have little visual action, and again, the artificial situation or the elaborate format does not provide program

interests if none exists, nor does any attempt to introduce inappropriate visual interest. Staging is the director's concern, but if program planners or participants steer content to include visual aids, the director can make them visually effective and integrate them with the performance; however, if they are not integrated with content, their interest value is slight. The home viewer's interest in a nondramatic program depends primarily upon his interest in the content and the performers.[1]

For the writer of drama, the problem is different, but the relationship of the viewer to the screen is the same; the simple play based on believable characters in believable situations holds interest, but if a play lacks dramatic values, staging and lighting and costuming are mere trappings. However, the problems of television drama writing need separate discussion, and here we are concerned with the writer's relationship to the home audience. In planning and writing, for an intimate medium, the need is to interest the viewer in content and performers, remembering that the viewer feels a personal relationship to a performance played in his living room. Audiences have always liked to feel that they are "in on" the real situation. Television cannot keep them out of it.

VISUAL AIDS AND PRODUCTION FACILITIES

The writer has little to do with the visual production, but there are aids he can use, always within the limitations of budget and production facilities.

Physical production facilities include a library of stock shots —films of various scenes and locales, famous events and world figures, which can be cut in to give visual scope to a production, illustrating a news story, for example, or in drama, giving authority to a locale. For example, a filmed pan shot of Grand Central Station gives verity to a studio set of a corner in the

[1] Quiz and contest programs such as "What's My Line?", "I've Got a Secret," and "The Groucho Marx Show" are good examples of simple format.

station. Stock shots can be superimposed, as when a foreground character remembers a wartime scene, and the viewer sees him and the remembered scene simultaneously; stock shots can be used for montages, the impressionistic effect of many events happening at once or in rapid succession, and if facilities permit, can be projected as background for scenes—for example, the moving background seen through the window of a stationary studio set of a train interior.

A director can, if budget permits, take cameras out on location to shoot specific scenes not included in the film library, can use superimposition and montages in shooting a studio production, and can mix and blend camera effects, stock shots, film clips, and studio sets, overcoming the limitations of a small studio production. However, visual variety won't overcome the limitations of a poor script, and though writers should know what effects are possible, the effectiveness of a script depends on the credibility of its characters and situations, not of its film clips.

In the following projects, you are more on your own than you are in a professional situation, but practice in planning and writing is helpful in understanding the needs of the medium.

1. Using a tabloid or any newspaper with a page of photographs, write a 10-minute newscast around the features illustrated, but including major events, whether illustrated or not. Look through files of old newspapers or weekly picture magazines to see if you can find "stock shots" for them.
2. Write out the story of a comic strip as a narrative. How much of what you put into words is pictured in the drawing? How much is implied by the contrast and juxtaposition of pictures, such as a picture of a man entering a building, and then a picture of him seated at his office desk?

3. Plan and write the following for one-minute filmed commercials, assuming that you can have all the visual and camera effects you wish.
   (a) Everybody likes Blank's mustard pickles.
   (b) If you put your savings in the Big Bank now, you'll be prepared for a rainy day.
   (c) A well-planned modern kitchen makes a happier home.
4. Write pantomimes for the following, first for stage presentation and then for television:
   (a) A woman, home alone at night, hears frightening noises outside, takes a gun from a desk, and waits while the door slowly opens.
   (b) A man is impatiently waiting for an important phone call.
   (c) An old couple is putting away the games and toys used by their grandchildren, sad because the visit is over.

TELEVISION DRAMA

Television drama often observes the unities of time, place, and action for practical and aesthetic reasons. The practical reasons are budgets, limited studio space, short rehearsal schedules, and, in live productions, lack of enough time between scenes to permit elaborate costume or set changes. The television cost sheet, page 264, indicates the tremendous unseen costs of production, which are multiplied with every set change.

The realism television demands eliminates stories that develop characters over a period of years; in drama, the real is the believable, and in a visual medium, it takes time to establish a believable scene and draw the viewer into it. A half-hour of playing time is not enough to follow a character over a period of years in several scenes. A montage can indicate the passage of time quickly, but the character must show the effects of the years visually. Heavy age makeup is immediately obvious, ag-

ing the actor, not the character, in the viewer's eyes; and if there's no visible change at all, the montage is belied.

Unity of time does not necessarily enforce unity of place, but the need for realism requires believable sets. Television needs the realism of motion picture sets. Partial sets serve for some scenes, but limit movement.

Unity of time and place result in unity of action, the logical connection between successive events. The one-act stage play is probably the best model for a television drama, though many television dramas do not confine the elapsed time of the play to the actual playing time, nor the action to a single set. The basic techniques of the one-act play, however, are the writer's guide to television drama.

DRAMA IN AN INTIMATE MEDIUM

The size of the television screen and the viewer's closeness to it eliminate certain obvious types of scenes. Wild chases over roof tops, which could be filmed, would not be visually effective if the figures on the screen were too small, for example. But this, and the restrictions of time and place, are not restricting to writers who exploit the intimacy of the medium. The writer is not directly concerned with staging and camera techniques, but the talky scene that requires a director to invent superficial motivation for actor's movement is neither believable nor effective. A static scene in which there is no emotional development or conflict can be tricked up with camera techniques, but can't be given emotional impact; close shots, for example, are effective only if they have the impact or shock value.

A story conceived for an intimate medium makes use of subtle interplay of action and emotional reaction, of the conflicting needs and desires of ordinary men and women, in situations whose credibility gives viewers a shock of recognition—"this could have happened to me"—and develops in intensity of mood, suspense, comedy, or excitement.

The writer of television drama, however, shares the film writer's second-cousin relationship to a finished production, which, though basically his creation, is seen by the audience through the directed eye of the camera, interpreted through creative cutting, editing, direction, and performance. Although the importance of a good script is recognized, the writer usually takes the blame for a poor production, whereas credit for a good one goes to directors and performers. The situation is better than it was several years ago, when some motion picture writers published a review of the novel *For Whom the Bell Tolls* as it would be written by a film critic, praising by name the publishing house, the printers, the compositors, the binders, the proofreaders, the copy editors, and the paper manufacturer whose "wise choice of plain white for the paper did so much to offset the somewhat gloomy nature of the material." The author's name was not mentioned.

The following projects are planned to include some experience in directed rewriting, as well as a few of the problems of adapting to the medium.

PROJECTS FOR SELF-IMPROVEMENT

1. Find a published version of a motion picture or television script based on a short story, such as the pocketbook editions of Somerset Maugham's short stories and their accompanying screen scripts, and compare story and script for structure, concentration of action, and changes made to adapt the story for visual performance.
2. Find a short story with unity of time and place; adapt it for 25 minutes of playing time as a television drama. When the script is completed, cut it by three minutes.
3. Write the following for a television scene, assuming you are adapting a story. A middle-aged drugstore manager discovers a thief stealing from the cash register. In the original story there is a chase down streets and alleys, during which the thief is out of the druggist's sight long enough to drop the money in a trash container so that

when the druggist captures him, he not only denies the theft but accuses the druggist of framing him to cover a shortage in accounts. Write the adaptation for a production in one set, the drugstore interior, retaining the dramatic elements of the chase down the streets and alleys. Then rewrite as follows:

(a) Cut it by one minute.
(b) Intensify and extend by two minutes the action immediately before the thief accuses the druggist of framing him.
(c) Change the drugstore manager to his teen-age son.
(d) Add the druggist's wife to the scene from the time of the discovery of the thief to the end.

CHAPTER EIGHT

Writing for Radio

G. B. SHAW'S voluminous stage directions give delight to play-readers but are seldom followed by directors, because, though a writer always imaginatively stages his plays, his visual concept may not be theatrically effective in an actual performance. In radio, however, dialogue and sounds create an imaginary theater for listeners, and stage directions—or the words that suggest movement, business, and mood—are part of the dialogue. Though script changes are often made in rehearsal, the radio writer meets a challenge in this close relationship to the finished product.

To write successfully for radio, you must know the medium well. If you have performed in it, you probably do; if not, the chapters on radio acting, directing, and announcing will serve as an introduction. The structure of broadcast writing is covered in Chapter Six. In this chapter, we emphasize writing for the listener's ear.

CONVERSATIONAL STYLE

If you can write the way you talk, you will have no trouble in adapting your words to radio. You will write "I'm" for "I am," "can't" for "cannot," for example, and, unless your speaking style is deliberate and erudite, you will automatically use simple sentence structure and natural sounding dialogue. Some

people, however, have trouble dissociating the writing process from formal constructions and literary style. With a typewriter before them or a pen in hand, they find themselves using the patterns of written, rather than spoken, English. If you have any such problem, here are some suggestions for overcoming it.

First, say everything to yourself before you write it. Don't just think a sentence; vocalize it in a whisper. When you have written a paragraph or a page, read it, and again vocalize the words. Saying a sentence before you write it helps you use words from your spoken vocabulary, and reading it aloud helps you to hear rather than see what you write.

Second, if you aren't sure whether it sounds like written or spoken English, or if you know but find it difficult to break away from the more formal style, read a sentence and then think of its basic thought and tell it to someone. Don't read the sentence; just tell someone what it's about, and rewrite it the way you spoke it.

Third, when you write, don't think of radios or microphones or audiences; think of a friend, of someone to whom you might be writing a letter. Whoever reads your words to the audience will speak to them in a friendly, intimate manner; your writing should have the informality and friendliness of a chatty letter.

COMMUNICATION

The style of radio writing is conversational, but its purpose is to communicate ideas swiftly, economically, and persuasively. In nondramatic writing this means, first, clarity of organization, a logical step-by-step relation of ideas.

In presenting information, you start with a known fact and relate it to your subject, and then present and develop the subject point by point, with each point leading to the next. In a commercial announcement, for example, the known fact may be that everyone wants to save time. Such-and-such a product saves time, so using the product will save you time. Whether you write a 30-second announcement or a ten-minute talk, a

simple organization lets the listener follow moment by moment. He can't turn back a page, if he's lost the thread; and if he muses over a sentence or has to think through a complicated relationship of ideas, he is no longer listening.

If you try to cover too much, present too many facts or ideas, the listener may follow and understand what he hears, but may not remember it later. Whether you want to sell him something or teach him something, you want him to remember important points. Organize material around the one or two most important points, repeat them, illustrate them, and make them vivid with concrete words. It is not economical to compress so much information into a few minutes that none of it can be recalled later.

Communication, however, depends upon holding interest. This is true of all forms of writing, and in all, the basic principles of clarity, vividness, and variety apply. Here, in outline form, are suggestions for achieving them in radio writing.

Clarity. Radio writing must be clear for easy comprehension of words, sentences, and ideas. Use:

(a) short, simple sentences predominately
(b) familiar words
(c) straightforward organization of ideas
(d) repetition of important facts or ideas
(e) examples, illustrations
(f) only those materials, whether fact or fiction, which you understand well enough to present clearly
(g) not too many ideas or facts

Don't be elegantly wordy nor imitatively folksy; remember the words will be spoken by an expert performer, and their purpose is to convey a meaning, mood, or idea.

Vividness. Radio writing must be vivid in order to attract and hold the listener's attention. Use:

(a) graphic, concrete, "picture" words
(b) fresh approaches

(c) examples, illustrations, and anecdotes
(d) conflict—of characters in fiction, of ideas in factual writing
(e) words, sentences, and ideas which lend themselves to vocal color
(f) every dramatic device available to you: sound and music, pause, question, exclamation

Don't let vividness obscure meaning, through over-use of sound and music in drama, or of anecdote in factual scripts. Don't use rare and precious words which are vivid but not generally familiar.

Variety. Radio writing must be varied in order to keep the listener's interest. Use:

(a) sentences of different lengths, so that some are shorter than others, some mere exclamations
(b) paragraphs or scenes of different lengths
(c) humor, wherever appropriate
(d) climactic organization—in drama, this means scenes which build to small climaxes, as well as to final resolution; in factual material, it means paragraphs which build to point after point of increasing interest
(e) change of pace and mood in scene or paragraph organization

1. Choose a paragraph from a book, or any material written for silent reading. Rewrite it for radio, as though it were part of a talk. Rephrase it for clear and vivid presentation.
2. Write a short talk on some subject you know well, or a commercial announcement for a product you are familiar with. Time the talk for five minutes, the announcement for one minute. Read it to a group or to any individual, and find out how much was remembered. Ask for a summary of the important points, and ask questions about specific facts, immediately after you have presented the material, and again a day later.

3. Write a paragraph giving directions about how to drive a car or get downtown or some other familiar subject. Write in conversational style and then, if possible tape-recording it, explain the same operation without a script. Compare the two.

RADIO DRAMA

Radio drama is all dialogue, supplemented by sound effects and music cues, but it can stimulate the listener's imagination so effectively that he visualizes scenes and actions. In an instant, his imagination creates a complete scene from a sound effect and a voice . . . and more often, the voice alone. Tell him the scene is a cafe in Paris, and he pictures it at once, a better picture than anyone could present him visually because it is his idea of what a cafe in Paris looks like. You can tell him he's in outer space, or in ancient Egypt, and his imagination does the rest. Because you can transfer him from scene to scene in the time it takes to say the words, radio plays have no limitation of plot in terms of scene. Stories may deal with any period in history, the past, the present, or the future; anyplace in the real world, another world, or a dream world. The plot can take the listener back and forth in time and space; in seconds he changes the scene from sixteenth century London to present-day Iowa.

Imagining a scene, however, does not mean participating in it emotionally. It takes time to make a personal identification with characters, or to become concerned about what is going to happen. Because actors are able to use a subtle intensity in radio—sighs, gasps, minute inflections of emotions, and changes in voice quality—listeners can make a full emotional identification. Daytime radio serials hold interest with slow-moving plots because listeners are deeply concerned with the characters and their problems. The characters become so real that listeners send gifts and letters of sympathy and advice to fictional people, known only by a voice heard for fifteen minutes a day.

A radio play should take advantage of this capacity to involve the listener, not by slow-moving plots but intense ones, worked into scenes that let him feel as well as imagine the situation.

Since time limits are rigidly fixed, most good radio plays have one strong, central plot based on personal conflict that can convincingly be revealed and resolved in fifteen minutes or half an hour. As long as the listener can identify himself emotionally with a character, it doesn't matter how many years the story covers; in fact, since he imagines action and feels reaction, a story that traces a continuing conflict over a period of years, told through the thoughts and emotions of a character, is better than one that covers a short period of eventful, physical action.

Because listeners know characters only by voice, scenes with large numbers of characters are hard to follow, unless most of the characters are part of a crowd and need not be identified or remembered. The listener can make a visual identification from a voice and a characterization, but makes emotional identifications only with characters he knows well. Thus, though there is no limit to the possible size of a cast, radio plays are more effective if the story is told through a few characters.

A good guide in plotting radio drama is to remember that the listener should never be put in the position of a spectator or observer, hearing characters talk about things he can't see. For example, dialogue can tell him that a man is painting a picture and is so emotionally upset that he is doing a bad job. The listener can imagine and share emotionally in the situation. But if the artist is a musician practicing for a concert, the listener hears the fumbled runs and chords; he is no longer imagining a situation, he shares it.

DIALOGUE

Dialogue in a radio play tells the story as it does in all forms of drama. The only difference in radio dialogue is, first, it is written in conversational style, making full use of the intimacy of the medium; and, second, it identifies people and places, and

describes actions which would be self-evident in a visual medium.

Conversational Dialogue. If you put together what was said about conversational style in the first part of this chapter, and the suggestions for reading dialogue in Chapter Four, you will understand conversational dialogue. Ordinary, everyday language, written to convey meaning, emotion, and character, tells a story that actors can bring to life.

Dialogue lines in radio plays are usually short because the interplay of voices gives variety, pace, and tempo. When you write radio dialogue, think of it as voices in a trio or quartet or duet. Two voices are seldom heard at once, but a character who is not speaking is or should be reacting; his part is continuous so long as he is still in the scene. Individual lines have rhythm: many short words in succession are staccato; words with long vowel sounds are slower. Unfinished sentences, breaks in thought, and sudden exclamations give rhythm to lines, and the mood or tempo of a scene is built on the mixed or similar rhythms of all the dialogue lines.

You should be aware of the color and rhythm of dialogue, but you should not depend on a series of short, staccato dialogue lines to compensate for lack of action; and obviously, never substitute tricks of dialogue for characterization.

Narration, either by an impersonal narrator or by a character who reveals his thoughts and speaks directly to the listener between acted scenes, is part of the play. A narrator should read in the style and mood of the play; if a character narrates, he does so in character. Narration should not interrupt action but carry it forward.

Action and Identification. The listener's imagination works continuously, once he starts listening to a play; that is, he visualizes something with every sound and voice. If a scene opens with two characters in dialogue, he visualizes two people talking, and locates them tentatively somewhere. But unless the dialogue tells him, or an announcement or narration has given him the information, he doesn't know their names, their rela-

tionship to each other, where they are, what time of day or night it is, or, for that matter, what century. The opening lines of a radio play include everything the listener needs to build his imaginary scene. The information can be presented directly in narration, but dialogue does it indirectly.

The opening lines must arouse interest in the play; they can't be only introductions to the scene. People in conversation with each other usually address each other by name, and in the first lines of dialogue, so do characters. The manner of address can establish the relationship, roughly at least; if it's formal or friendly or antagonistic, the listener has a clue. The manner of address can also set the time of the scene. By the way characters address each other and react to each other, and their use of a first name, a nickname, a formal mister or doctor, an eighteenth century "my lady" and so on, the listener can learn a good deal about the characters from their first lines.

The lines should obviously be written in character, and if your characters are fully realized, their lines will be in keeping with the time and the place. In other words, it is not a problem to set the scene and to identify characters if there is a reason for them to be talking together and a reason for their being in the place where your scene is set. If there isn't a reason, the dialogue is unmotivated, and the scene is only words.

Keep the listener in mind when you describe actions in dialogue. If one character is supposed to give a package to another, the listener will not know it if he only hears someone say, "Here." If the character says, "Here's your package," the listener pictures both the package and the action of giving. When a character performs any movement or business that you want the listener to visualize, it should be planted beforehand, if possible. A hint of the intention is enough; if the action involves physical effort, it will affect the way the character speaks, and can be self-evident in his lines. When you read over a scene, check to make sure the listener will hear the words that stimulate his imaginary picture of people—not only their movement and their scene, but their emotions and reactions.

SOUND EFFECTS AND MUSIC

Sound effects appear more often in radio drama and variety shows than in other types of programs. But wherever they are used, sound effects are like spices, to be used sparingly for the best results. Sound effects can only rarely take the place of words; they are primarily illustrative. They give vitality and reality to drama, but only if they are used cautiously; they cannot substitute for descriptions of actions. Listen to radio plays to learn how sound effects perform the following functions; note how most sound effects are identified by words either before or after they are heard.

1. Setting scenes. Traffic sounds set a street scene; cackling fowls, a barnyard, and so on.
2. Illustrating actions. Footsteps, gunshots, doors opening, hammering, and so on.
3. Intensifying mood. Squeaking shutter, peaceful chirping of birds, and so on. (Note how rarely sound is used *only* for mood; usually it also sets a scene or illustrates an action.)

Music is used primarily for changing scenes and for establishing mood. It is sometimes used as dramatic punctuation, for example, with a single, shrill chord emphasizing a climax within a scene; it is sometimes used to set a scene, for example, a jazz orchestra can suggest a night club; or it can be used to set a period, as when a minuet opens a scene. Its most frequent use, however, it that of making transitions from scene to scene.

SCRIPT FORM

Radio scripts are usually typed with double or triple spacing and wide margins. Dialogue and narration are separated from sound and music cues, either by additional marginal indentation, or by being typed entirely in upper case letters, or both.

There is really no standard script form, but the script example in Appendix III is in a form easy to follow. Everything not actually spoken over the microphone is typed in upper case letters: sound and music cues, cues for the actor; directions to fade on or off, and so on.

Unless you understand what a fade or an off-mike effect is, don't use it. Chapters Four and Ten explain the purpose of microphone cues, and if you have had any experience in a radio studio, of course, it is elementary. However, it is still worth pointing out that microphone, sound, and music cues are part of the script; acting cues are not, unless they indicate a change in volume or voice quality that would not be evident in the lines.

You can't be completely accurate in timing scripts by counting pages, but the script form just described, double spaced, runs about a minute and a half to a page for ordinary dialogue; for narration, about two minutes to a page. The length of dialogue lines, the pace of scenes, the number of sound and music cues all affect the timing, but this is a workable estimate.

PROJECTS FOR SELF-IMPROVEMENT

1. Read published radio plays to analyze the plot structure; pay particular attention to opening scenes and to the first lines of all scenes.
2. From a short story or a novel, choose a page or two containing conversation. Type the dialogue as written in the story, in radio form, adding nothing. Cast the characters and read the dialogue, if possible tape-recording it. Listen to it to hear how much it tells the story, and whether the dialogue resembles spoken or written speech. Rewrite it for radio, adding any necessary dialogue and changing the written conversation to conversational speech.
3. Choose a novel or short story you know well, and plot it for a radio drama; write it as a half-hour script.
4. Listen regularly for a week to a daytime radio serial,

noting the plot development day by day. Then, without listening for a time, work out the plot from the situation you last heard, planning programs for five days. Write out at least one of them, timed for 11 or 12 minutes. Check your five-day continuation of the story against the serial.

CHAPTER NINE

Directing Television Programs

ALFRED LUNT and Lynn Fontanne gave an informal discussion of theater one time before an audience of eager young students of the stage. During the question period, one student, no doubt hoping for a near-magic formula for success or at least a key to it, asked, "What do you think is the most important thing for an actor to learn?"

Miss Fontanne looked reflectively at her husband. "I'm not sure, Alfred, but wouldn't you say it was to speak all your lines at the right time and move around the stage without stumbling over anyone?"

There is something deliciously absurd about reducing the art of acting to its minimum mechanics. There is also something very wholesome about it. What anyone learns about the various arts and professions is almost entirely mechanical, useless without certain talent and personal qualifications.

We could say that the most important thing for a television director to learn is how to get a program on and off the air on time. In complicated dramatic and variety programs this in itself is no small achievement. Unfortunately, however, it isn't enough. The most important single qualification for a television director is something which probably cannot be learned, at least not from a book. It is a sense of showmanship.

SHOWMANSHIP

At its simplest, showmanship is the art of exciting the attention and holding the interest of people. Or you can call it the art of entertaining people, which means about the same thing. Almost everyone has met nonprofessional showmen—the people who can tell a story so that you roar with laughter or sit breathless while the suspense mounts. Everyone has met the opposite —the people who could live through an earthquake or catch a thief and describe it as "a very interesting experience." The differences between the two illustrates the ingredients of professional showmanship. One tells his story at the right time to the right people. He understands and plays to his audience. He selects and arranges the incidents he relates so that they have increasing interest or humor or suspense. He has a sense of drama. Quite likely in a small way he uses pace and time, gesture and expression to heighten the interest in his story, perhaps nothing more than a pause or two at the proper times, or a swift, descriptive movement of the hand.

But there is no need to labor the point. Some people can hold the attention of other's, know what will interest them, and whether professional or not, they have some sense of showmanship. We use a homely example in order to emphasize one point: Showmanship is not mysterious, nor the last refinement in the art of staging, nor a well-guarded secret of technique. It is the first essential for all the theater arts; techniques are useless without it. Though it cannot be learned like a rule or a card trick, showmanship is basically a simple concept. Cast away all the trappings of the stage and studio, toss out the costumes and props, close the schools of acting, and you will still find showmen entertaining people on the bare boards of platforms.

Now, having gone through some fairly complicated maneuvers to explain how simple showmanship is, let's see if we can explain briefly why it is so preeminently important to the television director.

First of all, television is basically a form of showmanship. It is not a new art; it is a new channel for the transmission of many old arts—theater, dance, clowning, discussion, talk, and so on. The job of the television director is to help performers communicate with their audience via a screen, measured in inches. Whether the program is a football game, a ballet, or a newscast, the director must make sure that it is effectively shown on that little, little screen. He has a number of tools: cameras, lights, microphones. He has his performers, athletes, or actors. Depending on the type of program he may have a number of other aids, but he has one goal—to turn all these things into a show that entertains the viewers at home. His sense of showmanship is fundamental.

But obviously, in order to use his tools effectively and to direct his performers and crew, a television director must have certain other qualifications.

PERSONAL QUALIFICATIONS

Leadership. A television director may have as many as one hundred people working with him on a show. Performers, stage hands, camera crew, engineers, wardrobe and makeup men, film editors, carpenters, sound crew, writers—all may be concerned directly with the air show, whereas station and network and advertising agency personnel are more or less indirectly involved. The director organizes the efforts of all these people. He must understand their work and problems, what and how much can be expected of them, and how to help each do his best in a relatively short space of time. Furthermore, he must give them confidence in his judgment, since, under the tremendous pressure of the air show, they depend on his quick decisions. Thus, leadership is a prime personal qualification.

Good Taste. The director puts out a show that goes directly into the homes of viewers. It is up to him to exercise the good taste that draws the line between wit and ribaldry, earthiness and coarseness, satire and insult. Good taste has nothing to do

with censorship, but a good deal to do with sensitivity and a sense of responsibility to the viewer.

Creative Imagination. The director reads a script and sees not only words and cues but the set, complete with details of his own imagining; he sees the pictures his cameras will take, he hears the dialogue and music. In order to make the most of the materials and performers, he must be more than a leader with good taste. From the beginning, he imagines the entire production as a whole, creating it in his mind, as it were. He may modify it during rehearsals, but before he makes a request for a lighting effect or gesture or prop, he has visualized it as part of his complete performance.

Inquiring Mind. Television is so broad, complex, young, and changing a field than in order even to keep abreast it is necessary to have an alert and inquiring mind. For a director this implies a devotion to the profession, an enthusiasm that sends him out between shows to learn what he can about his field. He may go to an art gallery to study the composition of great paintings; he is a picture-maker, too. He studies actors in motion pictures and on the stage, listens to music for what it can reveal about mood and rhythm, watches ballet for movement, and people for themselves. He is interested in improving and perfecting not only his own skills, but the medium itself.

Tact. The director needs the ability to deal honestly and effectively with subordinates and superiors, based on a clear understanding of their personalities, problems, and limitations. In a sense this is part of leadership, but in dealing with performers and technicians, each of whom is an artist or craftsman in his own right, true tact is so essential that we give it individual attention.

Self-Control. Let us put it bluntly. The television director needs to be able to work under extreme physical and mental strain without blowing his top. Tension spreads like electric current from individual to individual, and a director whose voice and actions reveal growing tenseness soon finds himself

working with a nervous, short-tempered, inefficient cast and crew. A director who has indulged in an emotional outburst loses the confidence of his people, and says in effect, "I've lost control of myself and the situation." On the other hand, a director who remains apparently calm retains control and generates a feeling of confidence.

Capacity for Detail. Directing a television show requires attention to a mass of details. A director needs to organize and to handle them, and simultaneously to avoid being swamped by them. It is important to recognize what is important and what can be temporarily overlooked or assigned to others. This applies not only to details of organization, but to the scores of problems that arise during rehearsals. Fifty things are wrong with the show and there is time to correct only two or three of them. Which are the most important? The script has a weak spot. One actor is mangling his part, another is misreading an important line, a third is late on an essential piece of business. Action should be changed in one place to achieve a desirable camera effect; in another, because of microphone problems. Lighting is bad in one scene, a prop in another is out of period, and one set is ineffective because of a lack of dark and light contrast. These are only a few of the things that need attention. Which two or three will have the most effect on the total success of the show? The director must decide quickly —and correctly.

The foregoing may give the impression that only a few superhuman individuals have the personal qualifications for television directing. Obviously this is not the case. Some of the qualities can be developed: self-control, ability to organize and handle details, tact, and certain elements of leadership. Good sense can sometimes substitute for innate good taste, determination for an inquiring mind, intelligence for creative imagination. But the ideal director has the personal qualifications we have listed, and certainly no one should think of becoming a television director without conviction that he can develop them.

TRAINING

A thorough indoctrination in the theater arts is probably the best education for television. Whether gained through formal courses, practical experience, or self-training, a knowledge of theater, radio, and motion pictures is helpful, because television has drawn something from each.

A television director should have a comprehensive, though usually nontechnical, understanding of the facilities he uses, the potential of each tool, and so far as that goes, of each man. Some directors know very little about, for example, camera techniques, but they know how to hire men who do. Most important, they know the effect they want to achieve and what tools will do it.

Students with limited access to television equipment can study their counterparts in the other mediums—radio microphones, motion picture cameras, theater stages. Their functions and operation are not identical to similar television equipment, but the relationship is close enough to make their study profitable. Anyone who knows how to direct a stage play, a radio program, and a motion picture could make the transfer to television.

THE DIRECTOR'S WORK

A director, like an actor, is part of the complex and highly competitive broadcasting industry. Like an actor, too, he is judged by his performance, but his is an unseen role whose success depends upon how well he guides the efforts of others. Good directors are rare enough to give a successful one rather more security than most actors have; but there are far fewer directing assignments than acting roles, and though the director of a series usually stays with it as long as its rating is high, unless he owns it he has nothing to guarantee renewal of his contract.

A director may be on the staff of a station or network, or may free lance. As a staff director, he is responsible for certain more or less routine programs, usually in a specialized field—sports, news, remotes, and so on. Free-lance directors are usually specialists in drama, variety, or comedy. Some directors are producer-directors. Ordinarily, a director is hired by a producer and is responsible to him. The producer, in turn, is responsible to the network, agency, or client. The producer sometimes does no more than make arrangements, handle the budget, requisition facilities, though he may offer a good deal creatively. In any event, the producer is responsible for the over-all finish of a production and for its financial operation, whereas the director puts the show on the air. A director-producer combines both functions.

Television programs, however, are of such varied types that the work of the director is different for each.

DRAMATIC PROGRAMS

Television drama ranges from "Studio One" to soap opera, but the basic requirements for directing are the same. Television drama is theater adapted to a new medium, but the process of adaptation does not change the principles of good theater. A thorough knowledge of television is less helpful than extensive background in theater.

Understanding Staging. Good staging is the art of direction. It requires a knowledge of composition and of movement, which can be gained not only through formal courses but through observation—for example, watching ballet to study movement and visiting art galleries to analyze the composition of great pictures. Composition is, in a sense, arrested movement, just as the dance is composition in motion, and good staging takes in both. The director makes a picture to fill the television screen. It should have balance and contrast and a center of interest, as well as being clear and meaningful. It exists not for itself but to help the author tell his story. But it is a picture in

motion. Every movement changes its composition, affects the balance, leads the eye either away from or toward the center of interest. Obviously, even though movement and business are only ways of interpreting the author's dialogue, they should have more than superficial meaning. Suppose the dialogue calls for the butler to come in and announce the Chief Inspector's arrival to a group of people huddled in the library after finding Old Uncle Throckmorton dead in the shrubbery. The grouping of the people should tell something of their feelings and their attitudes toward each other. Until the butler enters, they are the center of interest. By what movements or regrouping is the eye-line directed toward the butler? How does he enter and from where and how far into the room does he come before he speaks? How does grouping and movement of the others add to the reaction expressed in dialogue? Here is where you use your own creative talents in staging.

Cutting and Editing. But a television director is staging with the aid of cameras. He preserves or embellishes the meaning of movement with camera techniques. In other words, he guides the viewer's eye not only through grouping and movement but by cutting from one part of the set to another, or by using close ups or shots from a camera moving on a dolly.

In staging the entrance of the butler to announce the Chief Inspector, the director would not block out the movement and then figure out how to shoot it. He plans movement and shot together. For him, staging includes cutting and editing.

Casting. In any form of theater, casting is important. Bad casting slows up rehearsals because a miscast actor not only needs more direction but often puts a whole play out of focus. In the legitimate theater and in motion pictures, there is time to work on characterizations and to recast when necessary. But in television, as in radio, production is so fast that good casting is more than ever essential, though not all directors do their own casting.

Ideally, good casting means choosing the best actor for each part. Some grim realities must be faced, however.

First, a limited budget may force a director to cast the best low-salaried actors he can afford. Second, so little time may be allotted for rehearsal that to get the show on at all the director must type-cast.

But in larger productions, where rehearsal time and budget permit, there is time to work on characterization and the finer details that make for a finished production. In casting for television, the director looks for native acting talent, of course, and the actor's visual resemblance to the part. He is then free to cast much as a theater director does.

VARIETY SHOWS

A variety show on television may be anything from a quarter-hour amateur program to a full-hour extravaganza. Directors of variety programs need much the same background and training as drama directors, though with an emphasis on musical comedy.

However, a great many variety shows play to a studio audience, not just a group of passive observers but an audience whose laughter and applause are actually part of the show. In an amateur hour program, the winner is often selected by audience applause, and even when the audience plays a less direct part, the vitality of its presence is important. Important to some performers, who play more effectively to a live audience, but important also to the viewer who, hearing live laughter and applause, identifies himself with it, sharing the circular response between performer and audience.

To present a show both to a live audience and home viewers is hazardous; expert use of cameras is necessary—the home viewer should feel that the show is for him, not just for the studio audience. But that's a technical problem, and soluble; staging a show that gets response from the live audience is more difficult. Comedy routines that would be effective on a television screen may be lost to an audience that sees them from the perspective of the stage; the viewer gets the joke but, missing the laughter and applause of the live audience not only

wonders what is wrong, but loses his illusion of being part of a responding crowd. Group response is self-stimulating, whether it is the mass hysteria of a street crowd or the enthusiasm of a theater audience; when the viewer is no longer part of a group, even for only a moment, the let-down is likely to last for the duration of the program.

The problem can be met in a number of ways. Some variety shows are filmed before a live audience, and edited before broadcast; what didn't bring a response is cut. The Groucho Marx show plays an hour before a live audience, and the film is cut and edited to show the television viewer the best half hour. Some variety shows are filmed without an audience, with laughter and applause dubbed in the sound track later. To avoid the cheap deception of canned laughter, and the expense of producing an hour show to get a half-hour film, many variety shows invite an audience to the dress rehearsal or to a preview of the finished production on film; a routine that fails can be cut or improved before broadcast. In a Jack Benny show, for example, a comedy bit included capes with words printed on them. The home viewer could have read the words; the studio audience was too far away to see them and missed the point. A new routine was substituted before the broadcast.

As a variety show director, you have a double job, directing in two mediums at once—theater and television. Even in a modest program, an afternoon contest show, if there is a live audience its response affects the home viewer. An audience can be warmed up before a broadcast, and part of your job is to see that it's done. Often the announcer of a program is assigned to do it, and the techniques for working with the audience are described in Chapter Five, "Television and Radio Announcing."

HOW A PROGRAM IS PRODUCED

Each program type and each individual script has requirements that call for adjustments in production procedure, but

here are the basic steps that take a program from a script to the viewer's screen.

Let us assume that you have a script and a budget, neither of which is satisfactory. There is little you can do about the budget, but you can ask for changes in the script. It is, say, loosely written; you study it for ways to tighten it and simplify it, at the same time looking for ways to eliminate scene changes and effects that add to the cost of production. You work with the writer until the script is satisfactory; you may spend hours of work on the script yourself, knowing that to iron out the problems while they are still on paper is far easier than to solve them during production.

At this stage the script is your chief but not your sole concern. You are also organizing your production. No matter how many assistants you have, it is your responsibility to see that the following arrangements are made.

Studios and Rehearsal Facilities. Rehearsal times have to be planned because these facilities must be requisitioned in advance. The budget limits the amount of time that can be spent on rehearsal, but you schedule reading rehearsals, dry runs, and camera rehearsals for the cast, separate rehearsals for music, and a dress rehearsal. In scheduling rehearsals you are planning your work and obviously it must be in relation to the difficulty of the production. You need enough reading rehearsal to get the cast into their characters and to start developing mood, pace, and climaxes. In a dry-run rehearsal you block out action loosely, so that in the more expensive camera rehearsals you can work on movement, business, and picture effects.

Sets and Costumes. To give time for completing them, sets and costumes must be planned well ahead. You consult the set designer, telling him what you want or giving him the script so that he may read it and suggest sets. If many sets are required, working them out effectively on your budget may be a problem, or the action of the play may require an effect difficult to achieve within the limits of studio space. Even if no special

problems exist, you visualize the planned set as it will appear on the screen, and as a working set for the cast.

For costumes you consult the wardrobe mistress, who arranges to rent or to buy them. Here again your concern is with not only what is appropriate and effective for each character but also how a costume will appear on the screen in contrast to the set or whether it will lend itself to the quick change required by the script.

Music. Music is planned in cooperation with the music director, who either chooses theme bridges from stock or arranges original ones played by an orchestra, depending upon the music budget. You indicate the mood, tempo, and length of each bridge needed and set a time for checking them, preferably before the first music rehearsal. It is also your responsibility to see that any music used in the program has been properly cleared.

Technical Assistance. Arrange for technical assistance in advance. A stage manager and crew, engineers, special effects, sound, and cameramen are assigned differently according to various studio organizations, but you make sure you have the crew necessary for your production.

Visual effects, film inserts, placards, and so on, should be arranged for as soon as they can be planned specifically. It may be only a matter of giving the art department a list of credits and requesting a specific stock shot from the film library, but if there are to be located shots or special effects such as miniatures, detailed planning is necessary well in advance.

These preliminary arrangements are early steps in production, but it is not necessary that they be taken in a special order. They may, in fact, coincide with the following steps, grouped separately because of their significance.

Casting. Casting a show may require auditions held well in advance, but in a series with continuing characters, an assistant or casting director can fill the one or two bit parts through a talent agency or, often enough, from a list of actors who have played small parts in the show before. The problems of casting

have already been described, but as a step in production, casting is as important as perfecting the script.

Staging. This continuous process begins, actually, with your first reading of the script and develops as you plan the set and the lighting and work out all the details of the visual production. Although you will undoubtedly make changes in rehearsals, you stage the production imaginatively before the first meeting of the cast.

In general, it is to your advantage to take care of as many details as possible before rehearsals begin. Much of your work is supervision—costumes, music, set, and props, for example, are worked out according to your direction, but the finished product is not always what you hoped for. If you don't find this out until rehearsals are under way, changes are much harder to make. Periodic checking of everything delegated to assistants will eliminate many problems, or at least allow you to meet them before you are deep in rehearsal.

Rehearsals. A rehearsal should be loosely planned, to the extent that when you begin you know what you want to accomplish by the time it is over. The first reading will give you a good idea of the difficulties you face with your actors, as performers and as individuals, and will show up weak spots in the script. At its end you will be seeking solutions to immediate and specific problems: one actor who hasn't responded to direction, another who drops a whole scene with an inept characterization, and a script that needs drastic cutting and revision before the next rehearsal. You work with the writer on the script far into the night if necessary, and rush the revised script to mimeo early in the morning so you can have copies for that day's rehearsal.

Obviously, not every script seems weak in the first reading, nor are there any predictable cast problems; but when you go into the second rehearsal you will at least know what characters and scenes are going to need the most attention. Your general goal will be to raise the level of performance, to help actors work on fine points of their characterizations, and to start

blending them into an integrated, well-paced drama. If the revised script times out reasonably well and plays satisfactorily, you count yourself fortunate. Otherwise, you have to decide how much to change it, beyond fitting it to time; can you improve it enough, or is it weak enough, to justify change when actors have already learned lines and rehearsals are well along?

Throughout rehearsals you will be making similar decisions. Before the first dry run, you block out action but change and develop it as the actors move through it, each change requiring them to adjust. At the end of the rehearsal, the movement should be set, but you may have to decide between working on an unconvincing bit of business or an awkward entrance, a muddy characterization or a stilted gesture. When this rehearsal is over there are, again, well-defined trouble spots that you must clear up, while working on the over-all effect of the production and watching its mounting details.

After the last dry run you will have little, if any, time to work with the actors; from then on your job is not to improve their performance but to adapt it to the cameras. Before the first camera rehearsal you hold music rehearsals, check all physical production details and special problems involved in the commercials, rehearse the announcer, work out a routine to coordinate the various activities that will be going on simultaneously in the studio, and arrange for making and editing the kinescope or film if either is part of the production.

At the camera rehearsal you coordinate sound and cameras, work to achieve the most effective shots, and trouble shoot. You watch the production on the studio monitor, seeing it for the first time as the viewer will. The weak spots—that stilted gesture or awkward entrance—may be more glaring than ever, but nevertheless minor compared to new problems. A mike casts a shadow in one scene; if the position of the mike can't be changed, the scene must be replanned. A planned cut from one camera to another won't work because the second camera is out of position; if you can't find another way to take the scene you have to change it or film it separately. The cameramen say

the lighting is bad; the lighters say it's the best they can do with what you asked for. There are problems to be worked out with the audio engineer, the stage manager, the video engineers, and everyone connected with the performance. Many of the problems are minor, but taking care of them requires related adjustments. Some problems are highly serious; for example, a carefully planned scene may be totally ineffective on camera, with the most important action obscured or lost. Usually, you will have solved or decided to ignore most of the trouble spots by the end of the camera rehearsals. You decide to ignore those you won't have time to eradicate, either because they are practically hopeless—such as an actor who probably can't do any better—or because you must spend all your time on the more noticeable ones—on camera, perhaps, the show ran long.

A good many technical problems can be worked out before the dress rehearsal; for example, light changes, microphone and camera placement, and, of course, script cuts or changes. Everything you can't work out before the dress rehearsal you plan alternate solutions for, so that you start the rehearsal knowing approximately what you are going to do moment by moment. If you have made cuts in the script or technical changes of any kind since the last rehearsal, you brief all your assistants, script secretary, engineers, monitors, stage manager, assistant directors, and of course the cast, even if they are not directly affected by the change.

The purpose of the dress rehearsal is to bring all parts of the show together, from the opening placard to the final commercial, to make it a smooth-running, accurately timed, finished production. The dress rehearsal should bring no new problems, nothing more than a hitch or two, unless the unexpected occurs. Props can be mislaid, cables break, lights fail, actors lose their voices, but there is no way to anticipate or to prepare for such disasters. However, some result from overtension; one of your hardest jobs during the dress rehearsal is to stay relaxed, hiding your worries behind an easy-going manner. Actually there is no reason for you to be unusually tense.

The show is pretty well set by now, and whether it's good or bad you can't make basic improvements. If you try, you may fail to achieve what is, at this point, more important—finish.

What we're calling "finish" is the glossy effect of a production that moves along smartly, is technically flawless, and has noticeable highlights. Another production may be basically as good, or even better, and yet seem to fumble, with sound patched in a fraction too late here, a camera cutting to empty space there, and so on. In one sense, perhaps, finish is superficial, but a production that lacks it has moments that destroy the illusion of reality. During the dress rehearsal you can perfect the technical integration of various parts of the production, improve its pace, and, instead of trying to strengthen weak spots, see that you're making the most of the good ones. You could spend half your rehearsal time on one unsatisfactory scene and fail to lift it, especially if its weakness was inherent in the script or in the ability of the performers. On the other hand, your good scenes are probably the well-written ones performed by your best actors, who can put your suggestions into effect immediately.

How to conduct a dress rehearsal is a matter of individual choice. You might check with the people responsible for each of the parts of the production to make sure they understand what you want of them and their relation to each other; then take a complete run-through. Or you might call your cast for later and start the dress with a technical-cue rehearsal. In any event, you will want an early run-through to give everyone the feel of the complete production, to check timing, and to decide what to work on. You may have another complete run-through before the end of the rehearsal, but an over-rehearsed cast often goes stale in performance, so you rehearse cues and parts of scenes. Trained crews can give you perfect technical cues if they know what you want, when you want it, and have had time to work it out. You check with cameramen and engineers to make sure they understand and get their voice or signal cues easily and in time. You check similarly with the music

director or orchestra leader, the stage manager, the floor manager, your assistants in the booth with you, and, of course, the cast.

As you watch the first run-through you watch pace generally and note which scenes seem to need picking up, or variation, letting the script secretary mark them. You can rehearse these scenes or parts of them, or explain to the cast what you want before the second run-through. You will also have noted which are the best scenes and decided whether they can be given a finishing touch. You may need only to tell the actors to milk a given scene, or you may want to go over one to see the effect of a pause or an added gesture at its high point. You have little time, however, and unless you can really add something to the scenes you had better not suggest changes.

At the end of the dress rehearsal, you will want to be sure that everyone is neither overly tensed nor relaxed, but assured and expectant, and that the routine of the production is thoroughly understood. The former you achieve with a break, the latter with a verbal check, and it makes little difference which comes first.

THE PERFORMANCE AND THE FILM

In the section on qualifications for television directors, the hazards of live television performance have been described. Nothing more need be added; during performances the director is responsible for keeping the show together and bringing it out on time, no matter what goes wrong, but his professional reputation depends on the effectiveness of the total production.

In filmed television, however, the performance hazards are eliminated. Scenes are shot separately, and the finished product is cut, edited, and spliced to make a single unified program. The basic production steps are similar, but the order in which they are taken is more flexible.

If you were directing a film for television, you would make the same preliminary arrangements for sets, costumes, music,

studio facilities, and crews. You would have as much concern with the script, but though your aim would be to obtain a satisfactory version as soon as possible, a weak scene could be rewritten and retaken at any step along the line, budget permitting.

Casting and staging are fundamentally the same for a filmed television production, with three notable exceptions. First, film allows more use of makeup than does television, so the visual resemblance of actor to character is less important; casting for filmed television is much like that for any motion picture. Second, since scenes are shot separately, in most productions, and over a period of days, there is somewhat less demand for quick studies, though television films have little room for slow studies. Third, all the sets used in a production need not be up at once; a set can be struck as soon as the scenes played in it have been shot, and another set erected in its place. This not only permits a wider variety of settings but also gives staging the dimensions of the motion picture rather than of the conventional one-act play.

In addition, of course, though directors of live television are expert in cutting and editing on the air, the motion picture camera gives them more flexibility in staging through camera effect.

The rehearsal schedule for a television film can also be more flexible. Scenes can be rehearsed and shot in units, without reference to their position in the drama. Each unit, or for that matter, each scene, can have its reading, dry run, camera, and dress rehearsals. The schedule depends upon the script, the director's preference, and the amount of time he has to complete the production.

One of the most important parts of the film director's work comes when the last scene has been shot, and he starts putting the production together in the cutting room. He will have seen rushes of each day's takes, and possibly called for retakes of some scenes as a result. He may have shot one scene in two ways, not sure which would be most effective. He may have

FIGURE 1. RADIO INTERVIEW. *An announcer (Tom Hanlon of KNX-CBS Radio, Hollywood) puts his guest at ease as they rehearse a scripted interview. As important as his stopwatch for timing the program and the pencil with which he marks running time and cues or changes is his relaxed and cheerful manner, reflected by his guest, tennis star Alice Marble.*

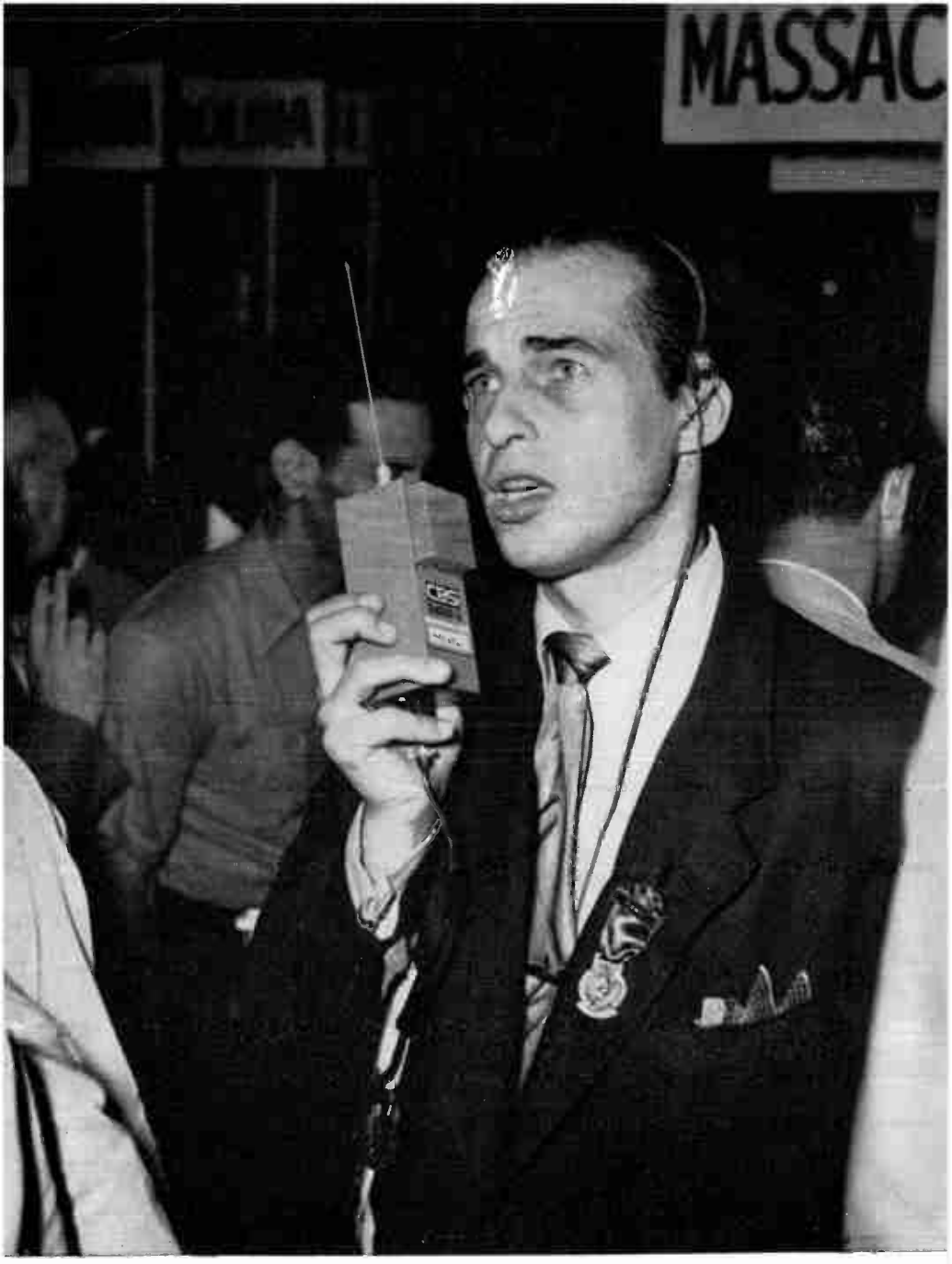


FIGURE 2. SPECIAL EVENTS. *Carrying a 5½-pound walkie-talkie transmitter, a radio newsman (Allan Jackson of CBS Radio) pushes his way through the aisles at a national political convention to give a first-hand story on the attitudes of different delegations.*

FIGURE 3. RADIO DRAMA. *Taken from the control room, this picture shows the director's view of the studio. The orchestra in the foreground provides hushed background music for the actors playing a scene at the microphone, center. To their left, two other members of the cast sit, following their scripts as they wait for their next scene. Behind them, in a partial shelter, the narrator watches the director for his cue. In the corner, the sound man, surrounded by his equipment, is ready for his cue. Note separate microphones for sound, music, cast, and narrator. (Photo made during broadcast of KNX-CBS Radio's "The Whistler")*

FIGURE 4. TV SET. *Musicians are performing in front of a "window" suggested by shutters, a photo-mural, and a painted brick planter filled with artificial greens. Note boom mike suspended over heads of musicians, and off-screen announcer with hand mike. (Photo courtesy of CBS Television)*

FIGURE 5. TV FILM TAKE. *To take a high-angle shot, the camera has been placed on a platform. Lighting shown consists of two fill-lamps, center, and fresnel lamps, left and top, with "barn door" shutters. The boom mike can be moved from side to side, extended or retracted, and raised or lowered. (Photo courtesy of CBS Television)*

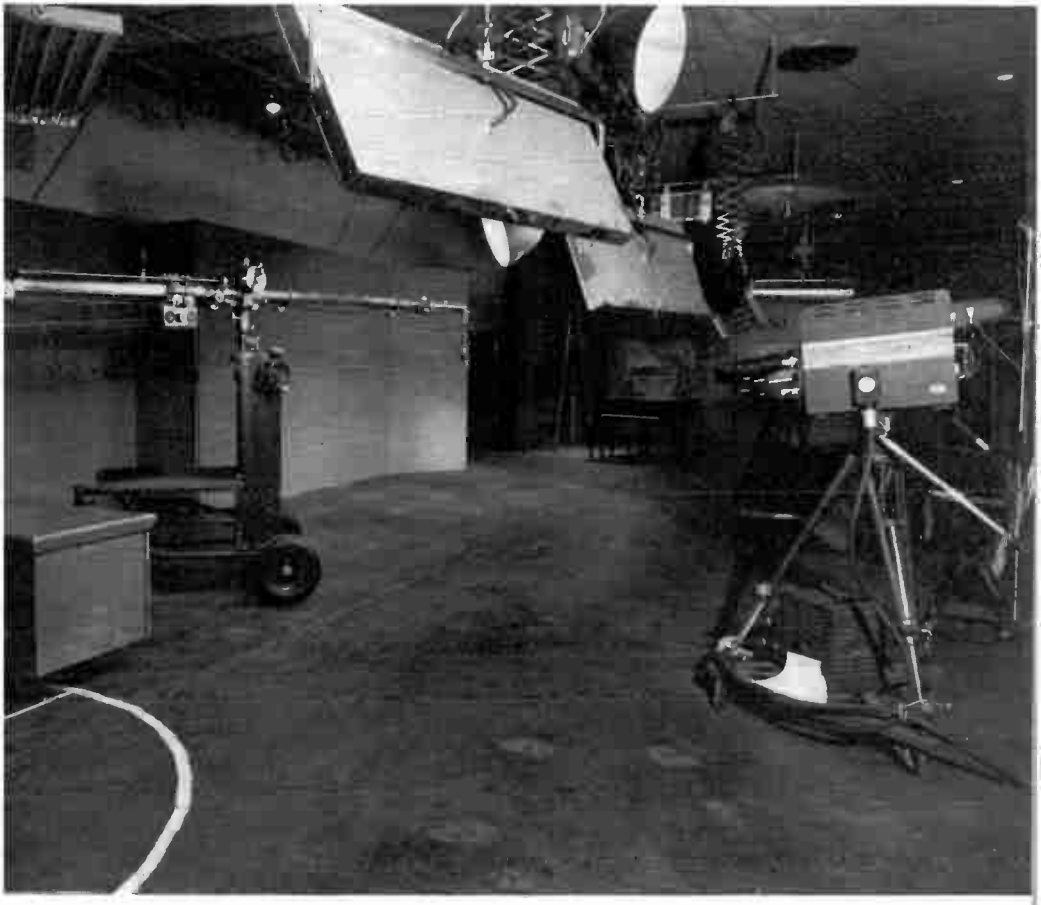


FIGURE 6. A TELEVISION STUDIO. *Basic equipment for television production includes camera, right, on a dolly; boom mike, left, on a portable mount; fresnel lamps and banks of fills suspended from the ceiling; and sets. The flats lined up behind the microphone, and the photo murals in the background, are standard ingredients of television sets.* (*Photo courtesy of CBS Television*)

FIGURE 7. TELEVISION STUDIO SETS. *A police court, with a corridor suggested outside the entrance, is set up in the foreground. To the right can be seen part of a living room, which has been set up directly behind the police court. In the far right background, the top of a photo mural is barely visible above the living room flats; it is part of the setting for an exterior scene.* (*Photo courtesy of CBS Television*)

FIGURE 8. TELEVISION STAGE SETS. *Ready for live production before an audience are, from left to right, an old-fashioned schoolroom; a plain backdrop for the announcer; a kitchen; and at the far right, the window background shown in detail in Figure 4. Note the three cameras being readied for this production of "Art Linkletter's House Party." (Photo courtesy of CBS Television)*

tried an experimental shot and protected himself by duplicating it with a conventional shot, and so on. To put the film together he views, evaluates, and tentatively selects sequences from the reels of film. As long as no apparent distortion results, he can splice together parts of any of the takes, rearranging the order of events, changing tempo or devising effects through cutting, and actually reconstructing the drama if he wishes. He can create special effects by overlapping strips of film, for example, or making a montage. Usually, of course, the press of time and the requirements of the medium—to say nothing of the script limitations—result in an uncomplicated production, shot with few retakes and requiring comparatively little editing, but the film director who is a creative editor can put the finish on his production in the cutting room.

Directing is clearly complex, requiring a variety of skills, experiences, and talents, but it is not impossible to learn the fundamentals and, given the basic talent, to direct successfully without a long apprenticeship. The following projects will familiarize you with the fundamentals and acquaint you with a few of the problems a director meets.

1. Assume that you are part of a group that has been invited to take part in a local station's public service program on community activities. You are the director of the group, and have decided to present a five-minute excerpt of the play the group is rehearsing. You will be given one-half hour of rehearsal in the studio under a television director, but you must come with your five-minute excerpt completely rehearsed. There will be a studio audience. Choose, plan, and rehearse in dry run a five-minute excerpt of a play.
2. Choose a half-hour one-act play, cast it, and rehearse it for a finished production in two weeks with rehearsal on stage limited to a total of 20 hours. Plan when and how long to hold each stage rehearsal. You do not have to take care of tickets, programs, and advertising, but you are

responsible for all other details of production; you have one assistant director.

3. Choose a one-act play and, referring to the cost sheet, page 264, plan on paper how you would produce the play for television with a budget of $20,000 for cast; camera, dry run, and studio rehearsals; music, royalties, crew, and all other expenses given on the cost sheet.

SPECIAL EVENTS DIRECTING

"Special events" is a term covering any happening in a community, outside of a television studio, that is interesting enough to attract an audience if it is televised—sports, local floods and fires, arrivals of famous people, award banquets, parades.

As a special events director, you interpret an activity for the audience, an activity over which you have no control. You direct moment by moment, but, except for disasters, you can plan roughly in advance if you know enough about the general subject of the event. For example, a football player steps back to throw a forward pass. A possible receiver is running downfield. The audience wants to see what will happen to that pass. As a director who knows football, you realize that the passer may be swarmed over by opposing players before he gets the pass off, or the pass may fall incomplete, or be intercepted. If the pass is caught successfully, the receiver may be tackled and dropped immediately, or may fumble, or sprint off to a touchdown. You have cameras on the side-lines and high up in the stands, equipped with Zoomar lenses which can bring action close up and with wide angle lenses that cover most of the field. Which of these cameras, which of these lenses, are you going to use? You must decide in seconds; the game moves fast. You probably will ready more than one camera, and your decision will be partly guesswork, but if you know the game, you'll have at least some idea of what to expect.

To a thorough background knowledge, add as much information as you can about the specific event. If it's a parade,

where does the line of march begin? Where will the judges' stands be located? How many floats and bands are taking part? Where is the crowd likely to be biggest and most interesting? Are any people involved who might be of special interest to the audience? The answers to these questions help you to place cameras effectively and to work out a rough plan of procedure. To visualize what will make the best picture for the home viewer, where to place cameras to get the best pictures, and how to handle periods between activities in an event requires imagination. The last is sometimes the most challenging of all. Attention is on the crowd—the great mingling mass of excited people. At the horse race it may be the crowd at the betting booths; at the parade, the children clustered around the balloon man, but somewhere in any crowd is material for a picture that will help the audience share the atmosphere.

Resourcefulness. Special events are full of problems and emergencies, such as providing sufficient lighting for interiors, hooking up to power outlets outdoors, and so on. Usually, special events take place where there are no facilities for televising. Some public buildings, such as the UN Assembly Hall, provide for television coverage, and more and more sports arenas are attempting to install such equipment, but generally, as a television director, you must build a sort of temporary studio out of whatever is available.

Resourcefulness may be taxed to the limit by emergencies. Lights fail, cameras blow, microphone cables are pulled out. Crowds obscure the best pictures, scheduled events are delayed, people chosen for interview go suddenly mute or giggly. Anything can happen on a special events program, and probably in the course of an average director's career, everything does.

NONDRAMATIC STUDIO SHOWS

News programs, forums, round tables, interviews, cooking and home shows, and a number of others come under the heading of nondramatic studio shows. Each has some special require-

ments but certain significant common ones. In all of them the director works with people who are experts or specialists in their subject field, and who are appearing as themselves. His job is to help them make the most of themselves and their material, though he generally has no control over the content or the organization of the program.

Staging. The director of the nondramatic, informational program probably makes his biggest contribution through effective staging, not tricky staging in which the newscaster, for example, is shot from a dozen odd angles, but by the use of lights, cameras, and occasional illustrative props to bring out the most interesting visual elements of the program. In a forum, for example, the most stimulating visual element of the program at a given moment may not be the man who is speaking, but one who is listening, his face showing increasing anger or disagreement. In any program where there is more than one performer, there is a choice between pointing up action or reaction, whichever is the most interesting visually.

OTHER PROGRAM TYPES

It is possible to divide and subdivide types of television programs almost indefinitely, but we have tried to limit them to a few broad categories. Children's programs can be called a separate type, but in terms of a director's function they fall into one or another of the classifications we have already described. Audience participation programs are another type, yet essentially they are nondramatic studio shows played to an audience similar to that of a variety show. There is a risk in oversimplifying, but perhaps an even greater one in overcomplicating. At the start, at least, it is wiser to concentrate on a few essentials.

For directing of any sort, the first essential is experience in a variety of connected fields, and in directing people in planned performance. Whatever your interest is—drama, sports, children's programs—know the field well. If you have an oppor-

tunity to work in television in any capacity, do it, because you also must know television well. Small local stations are excellent training grounds because staff members perform several functions, with almost everyone at least assisting in program direction part of the time. And directing is not something you learn, but something you do.

PROJECTS FOR SELF-IMPROVEMENT

1. Watch movies, television, and stage productions for groupings and placement of characters. Try to see the same production more than once so that you can detach yourself from the story and concentrate on details. Is the focus of attention always on a speaking character? Is the dominant character always center stage or directly in front of the camera? When one or two characters are off-center, how is the picture balanced?
2. Study still photographs of motion picture scenes or stage productions, or published volumes of expert photographers' work, and analyze their picture values. How is the eye directed to the center of interest? How do apparently casual lines—the drape of a curtain, an outflung arm, a head turned, the branch of a tree—help direct the eye? How do light and shadow contrasts affect composition? Study the composition of great works of art, particularly drawings, such as Goya's *Horrors of War.*
3. Direct a group in a one-act play, a radio program, or any performance that requires you to interpret a script and work with people.
4. If you can, get permission to watch rehearsals of any and all kinds of radio, stage, and television programs to see what the director does and how a performance develops.

CHAPTER TEN

Directing Radio Broadcasts

DODIE YATES, one of the original members of the Radio Director's Guild, says, "Radio directing is like a solo performance, where nothing compensates for the false inflection or the false emotion. In a way, it is easier to have only one aspect of performance to work on—line reading—but the difficult and satisfying part of radio direction is seeing that the voices and sounds alone do everything that lighting, staging, and scenery do in other mediums."

Using one aspect of performance so expertly that the listener can round it out imaginatively is the essence of radio directing, nondramatic as well as dramatic.

Practically, it means interpreting sounds for the listener. In some programs—newscasts and talks, for example—it involves establishing a microphone level that lets the listener hear comfortably and directing speakers so that meaning as well as words go over the air. But in a remote broadcast, it means bringing to the listener not only a report, but every sound that helps him to visualize and to participate in the event—interviews with excited spectators, the music of the band, the cheers of the crowd, intermission activities, and descriptions of people and performers. Directing drama calls for a creative use of sounds, music, and voices to give dimension and mood and to achieve the impression of a complete performance. The challenge of radio directing, however, is to do this and at the same time to

take care of technical details of production, keeping within a limited rehearsal and broadcast time period, coping with emergencies and budgets, always aware that success depends upon the rating of the program, not the effort put into it.

TRAINING AND QUALIFICATIONS

To direct in radio, you need the same personality qualifications described in detail in the chapter on television directing: leadership, the ability to work with people under strain, creative imagination, self-control, and a sense of showmanship. Training should include wide reading and experience in your chosen field, and, if your interest is in drama, a knowledge of music in addition to theater. In radio drama, music is a performer, and though you can judge the effectiveness of music cues without training in music, you can't suggest or select them unless you have heard enough music to know what to ask for.

If your interest is in variety and comedy programs, experience in an audience situation is essential. Most radio variety and comedy programs are produced before live audiences, though not designed primarily for visual presentation.

In general, the training and qualifications for radio directing are the same as for television; program types are similar and are planned for the same audience; the director's function in both mediums is to bring the program to the audience. His relationship to the broadcast industry and to performers and crew is similar; in fact, he may work for and with the same networks and stations, account executives, clients, and performers.

But directing programs for broadcast is not the same in the two mediums. The radio director's crew can be a single engineer; his cast a solitary performer. On a big dramatic show he may work with an orchestra, a crew of sound and special effects men, several engineers, writers, assistant directors, and a large cast, but he never has as many areas of production to supervise as does a television director. However, he has less rehearsal time, and with only voices and sounds to work with, he has more

concern with the minute details of presenting them effectively to the audience.

There is no substitute for directing experience, and, though directing in any medium is good general experience, few techniques of the visual mediums transfer to radio. Radio experience of any kind is helpful, and, because manipulating sounds and voices is the essence of radio direction, it is possible to simulate a number of radio direction problems.

As a radio director, developing the interest values of material, condensing the values into voice and sounds, and directing them into the microphone are your creative contributions to programs. How much you can do to improve content depends partly upon how much time you have and the type of program you are directing. But in any radio program your primary concern is the purely technical process of making sure the listener hears it clearly. No matter how interesting the program, if voices are muffled, obscured by other sounds, or hard to understand, it doesn't reach the listener; even if he has the patience to try to stay with it, what he doesn't hear cannot be communicated to him in any other way. To anyone who has had experience in radio, the amount of time we spend describing this technical process and its importance will seem large, but he will also know that it is impossible to exaggerate its importance. Probably no one has ever directed a program for radio without some experience in one or another of its areas, but the mechanics of microphone direction can be learned only from the director's side of the control room window. The chapters on radio transmission, and radio writing, announcing, and acting will be helpful, and should in any event precede an attempt to understand directing.

STUDIO EQUIPMENT

The acoustics of a studio and the type of microphone alters the pickup, and the number and quality of other facilities determines the effects that can be achieved. Your first step is to

find out what you have to work with technically, and to evaluate its quality. How many microphones, and what types—unidirectional, bidirectional, or nondirectional? Is there a boom mike, a filter mike, an echo chamber, or an electronic echo?

Visit a studio and examine the auxiliary equipment, the talk-back in the control room—a microphone that enables you to speak from the control room to performers in the studio—and the earphones worn by sound men and turntable operators so they can test and cue up records without turning up the volume.

Check sound effects and music, experimenting with the sound-effect door and similar equipment. Listen to some of the music and sound-effect records to check their quality.

Find out the studio's recording facilities—tape or wire recorders, equipment for making records and transcriptions. Learn how to cut and patch tape, or at least learn how it's done. An expert can cut the "s" off a tape recorded word and patch the tape so that no one can hear the change.

You, as a director, will seldom be called upon to operate studio equipment, but you can't direct those who do without knowing how it works. Familiarize yourself with the standard equipment and find out what you can expect others to do with it.

STUDIOS

In every studio, some areas are more "live" than others; they pick up sounds more cleanly and clearly. Some studios are built to include a "dead" area, where sounds are flattened. Off mike in a dead area sounds different from off mike in a live area; a scream or a shout directed at a dead area, or even at a wall, will sound just as terrifying but will be less likely to blast the mike, or to require turning down the volume in the control room.

Because they are all channeled through the control board, it

is possible to use several microphones at the same time. Most dramatic productions use a minimum of two. Sound effects and music are played into separate mikes, and though actors may work on one mike, often the narrator uses a different one. All performers are placed for voice level, and so that they can be seen in the control room. You cue them and control their mike positions with the signals described in Chapter Four.

In a well-equipped studio, your work is easier, but even without first-rate facilities, knowledge of the potential of each piece of equipment increases the effectiveness with which you use it. In local radio stations, particularly, using ingenuity in devising effects with limited equipment and compensating for lacking facilities is part of a director's job, but in every radio program the quality and nuance of each voice and sound is affected by details which require individual and often unusual adjustments. For example, a scene with an off-mike crowd and on-mike dialogue should give the listener the effect of a crowd, a particular crowd in keeping with the scene, and also, of course, should let him hear the on-mike dialogue clearly. You can try it with a crowd record on the sound table, but it is not always possible to find the right crowd effect in recording. You try the record as a background with a few off-mike actors doubling as the foreground of the crowd; you try the actors alone, adding more voices, changing their studio positions; you may tape record a crowd separately, using the whole cast and playing the tape as background during the scene. The sound of the crowd must not obscure the on-mike dialogue; if the on-mike dialogue is to be whispered or spoken at low volume, its relation to the background sound is changed. In radio drama, you stage with sounds, and just as a theater director works on the movement and composition of a scene, you work on the quality, perspective, and mood of its sounds; just as a visual scene has a center of interest, a radio scene has a focus of sound.

This is not a problem met only by drama directors; in any balanced program with more than one speaker, voice levels are placed so that each can be clearly heard at normal volume. If

the speakers are nonprofessionals, members of a forum or a panel, they usually do not understand the need for keeping a mike distance. If you try to impress it upon them, you make them so mike-conscious that they tense up, and your program loses vitality and spontaneity. You can give them one table mike and hope that no one will get so far off mike that he's unintelligible; you can give each one a mike, you can suspend a boom mike over them—but until you have heard their voices, and evaluated their poise and general attitude toward the broadcast situation, you cannot decide exactly what to use. Each program, in other words, has individual problems of voice and sound adjustment which affect your use of the studio and equipment.

TIMING

Timing the length of a program is an integral part of rehearsal and begins with the first reading of the script. You may read a drama script for content and cast requirements without putting a stop watch on it, but you estimate the time from the page count. A radio program ends at a given minute and second, and though you can't judge the precise timing in advance of performance, you work on timing with each rehearsal. When you go on the air, script and performance need only minor changes of rate or pace to bring the program out to the second.

If your first silent reading of a script satisfies you so far as length is concerned, you need not time it until you have a reading rehearsal with the cast; if you have any doubts, read the script aloud with a stop watch, trying to estimate the length of sound and music cues and the pace and rate of performers. You can approximate the time only roughly, but if it is seriously long or short, you still have a chance to work with the writer to cut or to lengthen it. Once rehearsals begin, there's usually not enough time to do a careful job; cutting is not difficult, but lengthening requires rewriting, not padding.

Time with a stop watch from the first reading rehearsal through each full rehearsal, adjusting for time when necessary and if the timing is tight, making a provisional cut of about 15 seconds in the last two minutes or so of the script.

In an unscripted broadcast, a forum or interview or participation program, it is more difficult to control timing; you can, however, backtime the closing routine and the summary or concluding remarks of the master of ceremonies—time the end of the program as a separate unit. If it times to two minutes, for example, when the broadcast is two minutes from the end, cue the performers to go into the closing.

Mastery of the mechanics of radio directing is important because rehearsal time is short. Some of the time must be spent in adjusting levels, but if you are not adept, half your time will be used in establishing relationships of sound, music, and voice, instead of in developing interpretations of dramatic values.

The number of technical assistants you have depends upon the budget; in a large operation, highly skilled sound men, musicians, control operators, and performers anticipate and help to meet the mechanical problems; but most directors begin in low-budget operations where both the amount and the quality of assistance is low. The following projects are planned to give some experience in the mechanical techniques of directing:

1. Find a full-page newspaper or magazine advertisement with a large amount of written copy and type four copies, double-spaced. Assume that this is a commercial announcement you are to direct for a 30-second recorded spot.
   (a) Read it and estimate its effectiveness for radio and its approximate length. Without altering meaning, cut or lengthen it and rephrase or rework it for more effective radio presentation, making the changes on all copies. Have one of your friends read it, and another record it—if you can't work in a studio, a tape recorder will do. Decide how the copy should be read, according to whether it is institutional or product ad-

time available, have to be accepted and compensated for by the polish of the over-all production. Though attention to details is important, the broader aspects of pace and mood and climax ultimately distinguish a good from a mediocre production.

Establishing and varying pace and mood should not be a mechanical process; with a good script and good actors, tempo and atmosphere develop with little direction. However, they must be guided and fitted into the total conception of the play. Delicate variations are possible, and important for color.

Color and dimension can come from judicious use of background sound and placement of voices, too, but overcomplicating effects can, as in a stage play, take the center of interest away from the performance, and, of course, every additional effect has to be timed and balanced and cued. In general, the simple production, focussed on actors rather than on effects, with the visual image stimulated by a few selected details, is better.

During a broadcast or recording, you, as director, are responsible for everything. You listen to the broadcast as it progresses, maintaining timing, tempo, and balances, and evaluating what you hear while you anticipate mentally the next cue, always alert for the first signs of an emergency situation. If you have used your rehearsal time well, the show comes off as planned. However, part of using rehearsal time well is working with a relaxed and informal efficiency. Rehearsal-weary actors go stale in performance, and tense ones flub lines, miss cues, and forget direction. It is far better to break for 10 or 15 minutes before air time than to try desperately to use the time in improving one routine or characterization at what may be the cost of the whole production.

The personality factor in directing is tangible. What the director conceives and creates is carried out by others, more effectively if there is a cooperative personal relationship and a feeling of mutual respect and confidence.

During rehearsals, and most certainly during broadcast, the director is a performer, not merely remaining poised and con-

is in describing each visual picture you want the listener to imagine, in terms of mood, emotion, actions, gestures, and movement. With good actors, little more is needed, but with inexperienced actors or slow studies it is sometimes necessary to describe the voice quality that expresses the character vocally, its rate, pitch, inflection, or to suggest the pattern of tension, pause, and relaxation that vocally pictures an action. It's unwise, though sometimes necessary, to give an actor a voice quality to imitate.

The best and most experienced actors, however, can't hear themselves in the studio as you hear them in the control room, and your function is to listen as though you were hearing each line for the first time and had no knowledge of the play. The small changes in inflection and voice quality give detail to the listener's imagined picture; you listen for these and for the false notes that spoil that image. In a radio play, minor details can falsify a scene. The obvious ones are misreading, slow cue pickup, badly timed pauses, unintegrated sound effects, unbalanced voice levels, and dragging tempo. As easy to detect but harder to rectify is a general dullness and lack of spontaneity in line reading. Usually it results because actors are not playing to each other; they listen to what they read instead of directing lines to an opposite character. Directing actors to look at each other after the reading of a line sometimes helps, but the cause may be too basic for so easy a technique. For example, an actor with a read-y quality in his voice not only puts a scene out of focus but also is hard to play to. Tense or tired performers go flat, or fall into a meaningless pattern of rate and inflection. Sometimes a short relief break or just a suggestion that life is lacking restores vitality to a dying scene. But what to do, and when and how to do it depends upon the specific situation, your skill in evaluating it, the amount of time available, and your forcefulness as a personality.

Directing usually becomes a matter of choosing which details are most in need of attention. Those that do least damage to the finished production, or those impossible to correct in the

and rehearse opening and closing routines, music, and sound cues. Have someone read lines before and after cues, but work on levels rather than on interpretations.

DIRECTING RADIO DRAMA

The preliminary steps in directing radio drama are the same as in any theatrical medium. The script must be studied, a plan of direction worked out, technical facilities arranged, assistants appointed, rehearsals scheduled, and a cast selected. Except that voice color and contrasts are important and quick studies preferred, casting is standard.

Rehearsal schedules are at the director's discretion within the amount of time available. Technical rehearsals of sound and music are generally held separately in advance so that a minimum of time is needed to fit together cues and dialogue in general rehearsal. The cast meets first for a read through, to establish interpretations and to get the feel of the play. Since the relationship of voices to sound and music is important, a general studio rehearsal usually follows, though not necessarily immediately; rehearsals are always adjusted to the needs of a specific script.

In radio, the words spoken carry the meaning and dramatic action of the play, but also imply visual actions and reactions through pause, inflection, and changes in voice quality. The written dialogue contains all the implications, but except for the off-mike, faded, and obviously descriptive lines, they are not always apparent in a first reading. A quick study recognizes most of them immediately, and without any direction most actors are aware of them by the end of the dress rehearsal. But the visual implications are brought out through pause and changes in rate as well as through inflection and general voice quality, and, mundane as it seems, the script timing has to take them into account. The sooner an actor understands his part the more he can do with it. As director, you study the script before rehearsal, and your best service in interpretation

vertising, punchy or explanatory, and so on. In five minutes, rehearse your announcer, establish his level, get an exact timing, and record. Cue the start and use the proper cues for slowing or speeding to bring it out to 30 seconds. Play back the recording and evaluate it.

(b) Add lines for a second announcer, to catch attention at the opening, and one line that repeats the firm or brand name at the close. Choose a second announcer and again rehearse, time, and record in five minutes; decide whether to cut the announcement or to increase its pace, but time it again for 30 seconds. Play back and evaluate voice levels and effectiveness.

(c) Add a recorded fanfare to the opening and close of the two-announcer script. Appoint a sound man to select and to run the record, guiding and evaluating his choice. Time the recorded cue and cut the body of the copy so that with sound and two announcers it is 30 seconds long. You have only 5 minutes of studio rehearsal and recording time, but you can select and time sound and cut the script in advance. Decide how to use your rehearsal time and prepare as much in advance as possible. Evaluate the recording for sound and voice levels and the appropriateness of the sound.

2. Choose three of your friends to do a 5-minute, unscripted discussion of some topic they can talk about with some enthusiasm and disagreement. Appoint someone to write an opening and closing announcement. You have a half hour of studio rehearsal time but no previous contact with the speakers. Your responsibility is to work with them to see that they have a pattern for beginning and ending their discussion, and to help them make it interesting. Prepare as much as you can beforehand and record the discussion, with an opening and closing announcement, for 5 minutes. Evaluate the recording for interestingness and voice levels.

3. From sources listed in the appendix, choose a radio play

trolled but also assuming an air of confidence; not just efficient and courteous but also projecting a personality that at once inspires and leads the performers.

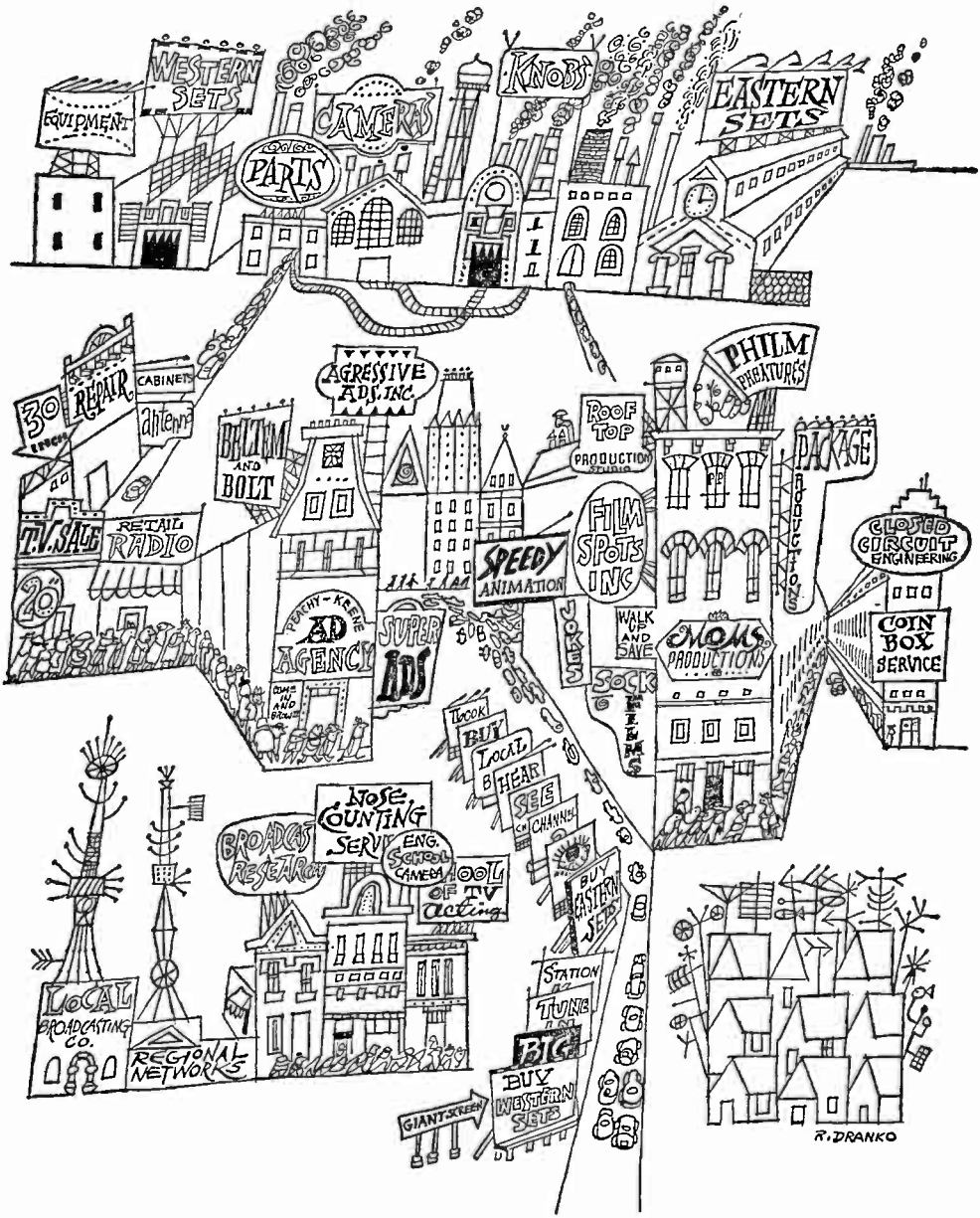
The experience of directing an actual performance in a live studio cannot be simulated, but the following projects will give you an opportunity to work on details of production.

PROJECTS FOR SELF-IMPROVEMENT

1. From a script source or anthology of radio plays choose a drama for a paper production. Draw a plan of a studio you are familiar with, list the facilities required, and study and mentally cast the script with actors you have seen in performance. Schedule rehearsals, planning the length and purpose of each and allowing a total time worked out on a basis of 4 hours for 15 minutes of script. Select music cues from recordings or write out descriptions of live music you would request from an arranger; choose or describe each sound effect. Write out a description of the mood and tempo of each scene and how you would achieve it. Cut one minute of the script.
2. Cast, rehearse, and direct the acting scene on pages 50-52.
3. Listen to radio dramas, analyzing the use of sound and music and microphone levels.
4. Cast, rehearse, and direct the radio play beginning on p. 251, Appendix III.

PART III

Broadcasting



CHAPTER ELEVEN

The Radio-Television Story

THE STORY of broadcasting has been told many times and in many ways, but it is always a story of men and ideas. It begins in 1865 with the prediction by a brilliant young English physicist, James Clark Maxwell, a professor at King's College in London, of the existence of electromagnetic waves. Twenty years later, Heinrich Hertz of Germany proved Maxwell's theory correct and for the next ten years experimented with ways of producing these electromagnetic waves. He was not the only scientist engaged in electromagnetic research, but it was a published report of his findings that stimulated the inventive mind of a twenty-year-old Italian, Guglielmo Marconi, in 1894. Marconi set up a laboratory in his home to experiment with the practical use of electromagnetic waves, and in 1895 gave a demonstration of "radiotelegraphy"—wireless transmission of signals. He organized a company to develop his invention commercially and year by year increased the distance over which signals could be received. In 1901, Marconi heard a signal transmitted across the Atlantic from his station in Cornwall, England, to St. John's, Newfoundland; by 1912, when wireless played so dramatic a part in saving lives of Titanic passengers, the growth of wireless telegraphy was assured.

At the same time other men were experimenting with means of communicating speech instead of code signals by wireless. In 1904, Sir John Fleming invented the diode rectifier tube, and

in 1906, Lee de Forest, an American, invented the triode amplifier, a major step in the development of electronics. That same year, another American, Reginald Fessenden, who had also been experimenting with wireless transmission of speech, successfully broadcast the human voice from his station in Massachusetts. Two years later, de Forest, who had gone to France, made his now famous broadcast from the Eiffel Tower, and in 1910, broadcast music.

WIRELESS SERVICES

These early experiments demonstrated the possibility of transmitting voice and music by wireless, but its practical value was undecided. As laboratory research continued and transmission and reception improved, men began to experiment with ways of using radio. It was only a hobby for some—amateurs who became the first radio "hams." But in 1915, the Bell Telephone System successfully demonstrated the use of radio in transoceanic telephone communication, and that same year, the University of Wisconsin's experimental station, 9XM, now WHA, started broadcasting regular weather reports. However, it was not until after World War I that the enormous possibilities of radio broadcasting were realized.

COMMERCIAL RADIO BROADCASTING

In 1919, General Electric and Westinghouse, having bought up the patents of American Marconi and started the manufacture of equipment and sets, created a sales outlet—the Radio Corporation of America. In 1920, the first radio stations that were operated as businesses went on the air, and radio lost its amateur standing. Whether the first of these stations was KDKA in East Pittsburgh, owned by the Westinghouse Corporation, or WWJ, in Detroit, is uncertain. But radio's birth as a broadcasting service is generally dated November 2, 1920, when KDKA broadcast returns of the Cox-Harding election. The first broad-

cast of its kind, it proved that thousands of people would listen to radio programs, and the talk caused by the broadcast aroused the interest of many people who had seen no value in radio.

Sale of sets and parts for home-built sets boomed, followed immediately by a big increase in the number of transmitting stations. In 1922, there were fifty licensed commercial stations; by 1923, there were 550, about half of them associated with radio and electric concerns. Listeners, however, were already counted in the millions, and it was apparent to most businessmen that radio offered a market for sales. The rush began—not to buy time on the air, for that was a later development—a rush to buy radio stations.

But there were no longer enough frequencies to go around. The 550 stations already on the air were having difficulty with interference, and it was almost impossible to find a channel for a new station. Two things happened then which influenced the character of radio in the United States.

In New York, the American Telephone and Telegraph Company's station WEAF offered broadcasting facilities on a time rental basis for businessmen and organizations unable to find channels for stations of their own. The idea proved enormously popular, not only because of the crowded air lanes but also because businessmen unable to finance a radio station leapt at the chance to buy time on the air. This was probably the first time a radio station had supported itself by the sale of its own product—radio time—and marked the beginning of sponsored broadcasting in the United States.

In Washington, that same year, Herbert Hoover, Secretary of Commerce, called the first of the radio conferences through which the policies guiding American radio were formed. Broadcasting had reached the point where it needed some sort of public control, and it had established itself firmly as a private business; there could be no doubt but that the pattern of American radio would be that of a private industry operating a public medium.

CHAOS AND CONFERENCES

Secretary of Commerce Hoover called the radio conferences to obtain advice on the problems arising in broadcasting; administration of radio affairs pertaining to commercial stations had been put under the Department of Commerce, and Hoover wanted the broadcasters' suggested solutions to the puzzle of limited frequencies and apparently unlimited applications for stations. As a result of the conferences it was decided to license stations, with the Commerce Department assigning frequencies. Immediately there was protest, and when the Attorney General eventually declared that the Department of Commerce had no authority to deny station licenses or to assign frequencies, confusion became chaos. Operators who had been denied licenses used the frequencies of existing stations, others switched to new frequencies, and "wave jumping" became so common that public and broadcasters alike appealed for legislative action.

A temporary Radio Commission was established in 1927, but year by year, the need for a permanent one became apparent; in 1934, the FCC was created by act of Congress.

THE GREAT DECADE

In the year that the first Radio Commission was established, a single network linked twenty-five stations from Boston to Washington, and sales of air time amounted to less than $15 million for all stations. Two years later, the first spot announcement was sold, and by 1934, when the FCC was established, radio's business came to almost $80 million. Then radio's great decade began. Everyone made money, but it was more than a rich profit; those were the years of experiments in writing and programming, years of discovery of the potentialities of a mass medium. After World War II, during which radio served without outside censorship, the future looked better than ever, and television seemed a long way off.

END OF AN ERA

The panic began in the radio world when television, which had been more or less the neglected child of communications, suddenly loomed as a dangerous, fast-strengthening rival. In 1939, Norman Corwin wrote a radio script, "Seems Radio Is Here to Stay." But in 1949, more than one radio executive was wondering if Corwin had spoken too soon. It was, at least, the end of an era—the era of radio's domination of the field of wireless communication. Although television operated on a local basis, with stations in only a few large cities, and although a tremendous radio audience still existed in rural areas and small cities, surveys indicated that television was the preferred medium in homes with both radio and television sets. It seemed only a matter of time until television would be available nationwide; advertisers, obviously, spend their money on the preferred medium.

It was hard to believe. There had been experimental telecasts as far back as 1927, when the Bell Telephone laboratory sent a telecast over telephone wires between Washington and New York, but until 1941, television was restricted to noncommercial operation. During that year the FCC lifted the restriction and by 1942, eight commercial stations were on the air —in New York, Schenectady, Philadelphia, Chicago, and Hollywood. With the advent of World War II, although much technical progress was made, television broadcasting was put back to the experimental, noncommercial status. After the war, technical troubles over color and channels kept advertisers and manufacturers hesitant.

In 1946, the coaxial cable being put through by the Telephone Company went only as far as Washington and Philadelphia; until it crept its way across the continent, television seemed nothing to fear.

When the FCC cleared the way for black-and-white television in 1947, a rush for licenses began—and radio was uneasy. But

television, apparently the hard-luck child, was set back again by the freeze order issued a year later by the FCC, primarily to investigate the use of ultra-high frequencies. Licenses and construction permits had been issued, allowing some television stations to operate, but not enough to offer serious competition to radio, it seemed.

BEGINNING OF A BOOM

In January, 1949, there were less than one million television sets in use, and only sixty-four stations in operation. Two years later, it was estimated that more than 10 million sets were in use, and 107 stations, all but one of the number issued construction permits, were on the air. Manufacturers were turning out less expensive sets, people were buying them, and advertisers found that television was worth the money. Gillette paid a reported million dollars a year for six-year rights to telecast the World Series and the annual all-star games, and when transcontinental microwave television was launched in September, 1951, the boom began. Its effect was felt not only by radio but also by all the entertainment industries, particularly motion pictures.

THE SINGLE AUDIENCE

Moviegoers, radio listeners, and television viewers are not three separate audiences, but one unpredictable mass of human beings whose entertainment preferences and habits are continuously analyzed by advertisers and broadcasters through measurement surveys, and by publishers and stage and motion picture executives through sales. Early surveys of television viewing habits showed that interest in viewing decreased somewhat after the first few months of set-ownership, when the novelty had worn off. Some people hoped this proved television to be a passing fad. Certainly, they reasoned, if there was something more entertaining to see, or do or hear, people wouldn't watch

television. The reasoning is impeccable, or would be if anyone could predict what an audience finds entertaining. After centuries of theater, Broadway still produces a number of flops each year, Hollywood puts out failures meticulously patterned after successes, and with all the data of years of audience research at hand, radio has yet to find a sure-fire formula for a high audience rating. Television has the same data and the same audience, but a new medium is even harder to predict.

For example, football broadcasts had always been successful on radio, and athletic departments profited from the broadcast fees they added to their gate receipts. If anything, radio increased attendance by increasing interest in the sport generally. But telecasts of football games were so popular, attendance dropped, and in 1951 the National Collegiate Athletic Association banned telecasts, lifting the ban the next year to allow some rigidly restricted telecasts of specific games. No one expected that many people would prefer a telecast of a game to the game itself.

What entertains this single audience? In New York City, it was so engrossed in watching telecasts of the Kefauver committee hearing that attendance at hit plays and movies dropped, housewives rearranged their schedules, and business activities slowed down. In Los Angeles, 89 per cent of television sets in the area were tuned to a microwaved telecast of General MacArthur arriving in San Francisco, and traffic accidents dropped 40 per cent. Like many other national and local events, both were televised because of the public interest in them, but no one suspected that so many people would prefer the telecasts to the many, varied entertainments available.

OLD MOVIES AND NEW

People do seek out entertainment when there is no conflicting interest, and the motion picture industry is skilled at supplying it, annually releasing new, finer productions. Hollywood watched unbelieving as its expensive, star-filled, current pic-

tures played to half-empty houses while the audience stayed at home to view old movies on television. Motion picture advertising insisted that movies were better than ever, but viewers liked them better at home. After trying to cajole the audience back with "Let's go OUT to a movie, tonight!," the motion picture industry slashed budgets, decimated production schedules, and grimly calculated its chances for survival. By 1952, 3000 movie houses had closed down, and ticket sales had gone from 90 million a week in 1944 to 35 million, and were still declining. Television was not solely responsible, of course, nor were old movies. But surveys published in 1953[1] showed that drama programs made up more than 47 per cent of all television broadcasts in New York, and 74 per cent of nighttime broadcasts; percentages in Los Angeles were slightly less but comparable. Although many of the drama programs were old movies, inferior to new Hollywood releases, and some were live television studio dramas, without the scope of motion pictures, a growing number were films made specially for television—low-budget films, to be sure, produced on the lots of small motion picture companies, but featuring excellent actors. In addition, long-established popular radio programs moved almost intact into television, and though some failed in the new medium, most of radio's top performers found a place in one of the many extravagantly produced television variety shows. The major studios of Hollywood could release bigger, more expensive, more carefully produced pictures, but the audience had to go to the theater to see them and had to buy a ticket to get in. Television, like radio, is free entertainment, so far as the viewer is concerned.

People were still buying millions of motion picture tickets each week, but what could bring back the huge audiences of other years? One answer was closed-circuit theater television, presenting in a theater telecasts which could not be tuned in on

[1] The first New York television survey was conducted by Dallas Smythe and Donald Horton in January, 1951; in May, 1951, Dr. Smythe and Angus Campbell conducted a similar survey in Los Angeles. Since January, 1952, Dr. Smythe has conducted annual New York television surveys under a Ford Foundation grant.

home sets. Would people pay admission to see them? On June 15, 1951, the first theater telecast, a closed circuit showing of the Joe Louis-Lee Savold fight, had sell-out crowds in nine theaters. A month later, eight television set manufacturers shared the sponsorship of a network telecast of the Ezzard Charles-Joe Walcott fight to keep it out of the theaters. Television wanted to keep its audience at home.

Another answer, subscription television, presenting feature films and special events to homes via television for a fee, was tested and awaits FCC approval. The phonovision method of subscription television is operated by the television station in collaboration with the Telephone Company. An electronic apparatus is attached to the subscriber's television set and connected to the telephone line. If he wishes to see a phonovision program, the subscriber calls the Telephone Company to make the connection and unscramble the picture. The fee is added to the monthly telephone bill. Another method, Telemeter, uses a coin meter attached to the television set; when the necessary amount of money is deposited, the picture is unscrambled. The Skiatron punch-card system uses IBM cards to decode the TV signal and unscramble the picture.

The major studios of Hollywood, however, gambled on three-dimensional motion pictures in color, hoping to turn viewers away from the flat, black-and-white pictures of the television screen. Before color TV could become widespread, motion pictures added good stories to the wide screen and 3-D techniques, and movies were indeed better than ever.

WHAT HAPPENED TO RADIO

Whereas television was cutting motion picture profits by showing old movies, it was using, for a time, radio's profits to cut its own losses. Television stations owned by networks or by radio broadcasting firms paid for television with radio until 1951; at that time television went network and showed a profit for the first time. By 1954 the broad relationship between radio

and television began to stabilize. Ninety-eight per cent of the people in the United States in 47.6 million homes had radios; in 27.6 million homes there were television sets that could be viewed by 88 per cent of the population. People in radio homes listened to their sets nearly four hours per day, whereas in TV homes, people watched their sets nearly five hours per day. Radio audiences dropped sharply during the peak television evening hours, but a Nielsen survey in 1953 indicated that in a typical week someone listened to the radio at some time or other during the evening in 87 per cent of the homes in the United States. Further, the total broadcast audience continued to grow, and although radio's percentage of this total audience was lower, the fact that the audience was larger gave radio a listenership still numbered in the millions.

Programwise, networks continued to feature a few big shows to maintain their prestige in radio, although most of the formerly expensive radio network evening shows dropped in price to attract sponsors, and network rates were adjusted downward in the evening when television competition was heaviest. During the daytime, radio network audiences held, and, in some cases, rates were increased. Most local independent stations followed a pattern of low-budget disc jockey, news and personality shows and continued to attract large audiences. As in the case of networks during daytime hours, some of these stations were even able to raise their rates. The most popular TV shows (for example, "I Love Lucy," with an estimated audience of 14,500,000 TV homes), though high-priced, still gave the advertiser a program at a comparatively low cost-per-thousand viewers. But, generally speaking, the very low cost of radio continued to make it attractive as an advertising medium.

PROJECTS FOR SELF-IMPROVEMENT

1. Trace the development of radio and television in your community. Which was the first radio station? When did others follow? Who were the early sponsors? Are there pictures of the old studios and microphones? Can you find

stories about the opening of early stations from back files of your local newspaper?

2. Interview oldtimers in your community, performers or audience, and find out their reactions to hearing a wireless broadcast for the first time, or to broadcasting in the early days of radio. Compare with the development of television in your community.
3. Find the details of stories highlighted in this chapter—the inventions and discoveries and the early struggles of men such as Sarnoff, DeForest, and Armstrong.

CHAPTER TWELVE

The Federal Communications Commission

In 1910, when motorists wore dusters and goggles and a daring young man named Glenn Curtiss won $10,000 for flying an airplane 137 miles in less than three hours, the Congress of the United States passed an Act requiring most passenger vessels to operate wireless for their own protection. This was the first regulation of radio, the first of a series of Congressional Acts which led to the establishment of the Federal Communications Commission. To most people, the FCC is identified almost entirely with the broadcasting industry, but only one-fourth of the Act which created it relates to professional broadcasting; the remainder concerns the supervision of common carriers (roughly telephone and telegraph) and police, fire, and other special radio services, and of all electrical communications which had previously been under the Department of Commerce, the Post Office, and the Interstate Commerce Commission.

The Commission is composed of seven members, appointed by the President and confirmed by the Senate, who serve seven-year terms at an annual salary of $10,000. No more than four Commissioners may be members of the same political party, all must be United States citizens, and none can have any connection with the communications industry. Most Commissioners are lawyers, although every Commission has included

one engineer. The seven Commissioners work as a unit, directly supervising all activities and determining policy. However, the FCC staff numbers nearly 1,400, a third of whom are field workers, who monitor and inspect all classes of radio stations, examine radio operators, and conduct technical investigations. The field workers are under the FCC Bureau of Engineering, one of five Bureaus which handle the administrative work of the Commission. The Bureau of Accounting is concerned with rates for common carriers (the FCC has no jurisdiction over radio broadcasting rates, since broadcasting is not included under "common carriers"); and with economic research generally. The Bureau of Law handles legal litigation before the courts. The Bureau of the Secretary is generally responsible for internal administration and issues the order and decisions adopted by the Commission, whereas the Bureau of Administration takes care of planning, budget, and personnel.

In March, 1950, the FCC added a Bureau of Common Carriers, the first step in a staff reorganization.

THE ACT OF 1934

For the purpose of regulating interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all the people of the United States a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges, for the purpose of the national defense, for the purpose of promoting safety of life and property through the use of wire and radio communication, and for the purpose of securing a more effective execution of this policy by centralizing authority heretofore granted by law to several agencies, and by granting additional authority with respect to interstate and foreign commerce in wire and radio communication, there is hereby created a Commission to be known as the "Federal Communications Commission," which shall be constituted as hereinafter provided and which shall execute and enforce the provisions of this Act.

This is the first paragraph of the Communications Act setting up the FCC, and its description of purposes makes clear the

broad scope of Commission duties. Following are the powers of the Commission in the supervision of radio.

Except as otherwise provided in this Act, the Commission from time to time, as public convenience, interest, or necessity requires, shall—

(a) Classify radio stations;

(b) Prescribe the nature of the service to be rendered by each class of licensed stations and each station within any class;

(c) Assign bands of frequencies to the various classes of stations, and assign frequencies for each individual station and determine the power which each station shall use and the time during which it may operate;

(d) Regulate the kind of apparatus to be used with respect to its external effects and the purity and sharpness of the emissions from each station and from the apparatus therein;

(e) Make such regulations not inconsistent with law as it may deem necessary to prevent interference between stations and to carry out the provisions of this Act: *Provided however*, that changes in the frequencies, authorized power, or in the times of operation of any station shall not be made without the consent of the station licensee unless, after a public hearing, the Commission shall determine that such changes will promote the public convenience, or interest, or will serve public necessity, or the provisions of this Act will be more fully complied with;

(f) Study new uses for radio, provide for experimental uses of frequencies, and generally encourage the larger and more effective use of radio in the public interest;

(g) Have authority to establish areas or zones to be served by any station;

(h) Have authority to make special regulations applicable to radio stations engaged in chain broadcasting;

(i) Have authority to make general rules and regulations requiring stations to keep such records of programs, transmissions of energy, communications, or signals as it may deem desirable.

The remaining powers include specific requirements for licensing radio operators; give the Commission the power to designate call letters of all stations, and to "require the painting and/or illumination of radio towers if and when in its judgment such towers constitute or there is a reasonable possibility that they may constitute, a menace to air navigation."

The powers end with a statement giving the FCC right to "Make such rules and regulations and prescribe such restrictions and conditions, not inconsistent with law, as may be necessary to carry out the provisions of this Act, or any international radio or wire communications treaty or convention, or regulations annexed thereto, including any treaty or convention insofar as it relates to the use of radio, to which the United States is or may hereafter become a party."

These powers apply to all broadcasting stations, including those on board United States ships, with the exception of government and mobile Army stations. Of these powers, all but three are primarily concerned with the mechanical and technical problems of transmission, operation, and distribution of broadcasting facilities. The three exceptions are those which empower the Commission to "encourage the larger and more effective use of radio in the public interest," "make special regulations applicable to radio stations engaged in chain broadcasting," and "make such rules and regulations and prescribe such restrictions and conditions, not inconsistent with law, as may be necessary to carry out the provisions of this Act." Interpretations of these powers vary. There are those who believe that the FCC should only traffic the air lanes, and others who argue that the phrase "use of radio in the public interest" cannot refer only to transmission.

LICENSING AND REGULATION

The Commission is empowered to grant station licenses "if public convenience, interest, or necessity will be served thereby," making "such distribution of licenses, frequencies, hours of operation, and of power among the several states and communities as to provide a fair, efficient and equitable distribution of radio service to each of same." Licenses can be granted only upon written application, which shall

> . . . set forth such facts as the Commission by regulation may prescribe as to the citizenship, character, and financial, technical,

and other qualifications of the applicant to operate the station; the ownership and location of the proposed station and of the stations, if any, with which it is proposed to communicate; the frequencies and the power desired to be used; the hours of the day or other periods of time during which it is proposed to operate the station; the purposes for which the station is to be used; and such other information as it may require.

The Commission has power to grant or renew licenses upon examination of the written applications. Before a license or renewal can be denied, however, the Commission must arrange a hearing in which the applicant may present his case. Licenses cannot be granted to aliens, or foreign governments nor representatives of either, nor to anyone who has been found guilty of unlawfully attempting to monopolize radio communication directly or indirectly.

REGULATION

Nothing in this Act shall be understood or construed to give the Commission the power of censorship over the radio communications or signals transmitted by any radio station, and no regulation or condition shall be promulgated or fixed by the Commission which shall interfere with the right of free speech by means of radio communication.

These sentences, from Section 326 of the Communications Act, clearly define the limits of FCC control, or would if there were common agreement upon the meaning of "censorship."

To some broadcasters, the FCC review or program service in renewing licenses constitutes a form of censorship. To others the review of program service is implicit in the FCC right to issue licenses in the public interest, and censorship would mean the repression of programs before broadcast.

However, the Communications Act specifically bans some material from the air. Section 326 concludes:

> No person within the jurisdiction of the United States shall utter any obscene, indecent, or profane language by means of radio communication.

Section 316 prohibits lotteries:

> No person shall broadcast by means of any radio station . . . any advertisement of or information concerning any lottery, gift enterprise, or similar scheme, offering prizes dependent in whole or in part upon lot or chance. . . .

Section 325 prohibits the broadcasting of "false or fraudulent signals of distress" and the rebroadcasting of "the program or any part thereof of another broadcasting station without the express authority of the originating station."

In addition to these specific prohibitions, the Communications Act contains two regulations pertaining to program material. Section 317 requires that

> All matter broadcast by any radio station for which service, money or any other valuable consideration is directly or indirectly paid, . . . shall, at the time the same is broadcast, be announced as paid for, or furnished, as the case may be, by such person.

Section 315 requires that

> If any licensee shall permit any person who is a legally qualified candidate for any public office to use a broadcasting station, he shall afford equal opportunities to all other such candidates for that office in the use of such broadcasting station, and the Commission shall make rules and regulations to carry this provision into effect: *Provided,* That such licensee shall have no power of censorship over the material broadcast under the provisions of this section. No obligation is hereby imposed upon any licensee to allow the use of its station by any such candidate.

The station operator, in other words, cannot censor material broadcast by any political candidate, and need not give time to broadcasts of candidates. However, if he allows one candidate the use of the station facilities, he must grant equal opportunities to all.

Nobody has ever argued that broadcasting should not be in the public interest, but the FCC and the industry have not always agreed on what public interest is, or how it should best be protected. The Communications Act gives only the broadest directives to the FCC, whose single control is the right to deny

or refuse to renew a station license. Only four revocation orders have been issued by the FCC, though hearings have been held to consider others. However, some of the most famous, and bitterly contested, decisions of the FCC have not concerned station licensing.

THE CHAIN BROADCASTING REGULATIONS

In 1937, the FCC, prompted by Congressional murmurings, began an investigation of chain, or network, broadcasting. In the hearings, the Mutual Broadcasting System charged that NBC and CBS had acquired such an iron grip on affiliate stations that Mutual was hampered in rendering service. NBC and CBS denied the charges. At that time NBC was, in effect, two networks: the Red Network and the Blue Network, both owned by RCA.

The hearings continued until 1939, and a year after their close, in June, 1940, the FCC issued a report calling the networks to account on a number of points. The FCC objected chiefly to the network practice of barring affiliate stations from the services of more than one network; or writing contracts which held the affiliate for five years but allowed the network to cancel after one; of optioning from two and one-half to three times as much time from their affiliates as necessary;[1] and of demanding that stations maintain an independent national advertising rate equal to that of the network rate.

Though NBC and CBS immediately protested against all points in the FCC report, Mutual requested that the FCC issue regulations limiting the network hold on an affiliate. In October, 1941, the FCC issued rules calling for limited option time and the end of exclusive contracts. Mutual declared itself satisfied with them, but NBC and CBS called them a death sentence for national networks. Though events have proved them wrong,

[1] "Option time" is time a network, in effect, controls. The network holds an option on a number of hours of an affiliate's broadcast time with the understanding that if the network wishes to place a program during that time, the affiliate cancels whatever programs were previously scheduled.

the two major networks felt that the exclusive contract and the right to option a larger share of an affiliate's broadcast day were necessary to the selling of advertising by networks, and they asked the courts to issue an injunction against the FCC enforcement of the rules.

The FCC turned its materials over to the Department of Justice, which filed suit in 1941 against NBC and CBS under the Antitrust Act. Mutual instituted its own suit against NBC, claiming that the older network had "wilfully stifled" its growth, and asked $10 million triple damages.

In January, 1942, the Red Network and the Blue Network were separated, and later NBC abolished exclusive contracts. Both NBC and CBS, however, fought the limited option provision, and by 1943 their case had reached the Supreme Court. They contended that the FCC was without jurisdiction over business practices in broadcasting. They lost the suit when, in May, 1943, the Supreme Court upheld the right of the FCC to regulate contractual relations between networks and affiliates. A few months later, the Blue network of NBC was sold, and became an independently owned chain, known first as The Blue and since 1943 as the American Broadcasting Company. Mutual then dropped its suit against NBC.

The battle was not yet over, however, for the FCC itself was under investigation in Congress. In January, 1945, the two-year Congressional investigation ended with Congress giving the FCC a clean bill of health. Thus the same decade that saw radio develop into an industry saw also regulatory power of the FCC approved by the Supreme Court and by Congress.

THE BLUE BOOK

A far more significant development came in April, 1945, when the FCC announced a policy of "more detailed review of broadcast station performance when passing upon applications for license renewal." Until then, renewal of station licenses had been all but automatic. As a result of the detailed

review of broadcast performances of licensees requesting renewals, the FCC in May, 1946, issued a pamphlet titled, "Public Service Responsibility of Broadcast Licensees." Less than sixty pages long, covered in blue paper, it became an immediate best-seller in an aroused radio world, and is still referred to as "The Blue Book."

In the Blue Book, for the first time, there is an attempt to give definition to the words "public interest."

> In issuing and renewing licenses of broadcast stations, the Commission proposes to give particular consideration to four program service factors relevant to the public interest. These are: (1) the carrying of sustaining programs, including network sustaining programs, with particular reference to the retention of licensees of a proper discretion and responsibility for maintaining a well-balanced program structure; (2) the carrying of local live programs; (3) the carrying of programs devoted to the discussion of public issues, and (4) the elimination of excessive advertising.

Reaction of the radio industry was intense. There were those who defended the Blue Book and applauded the attempt to raise the standard of broadcasting. There were others who defended the general standard of broadcasting and attacked the FCC's right to judge program content. The most concrete result was the issuance by the National Association of Broadcasters of a code for self-regulation of program material, a revision of an older similar code.

THE MAYFLOWER DECISION

In 1941, the FCC issued a decision on the case of Boston's station WAAB, owned by the Mayflower Broadcasting Corportation. WAAB had supported certain political candidates and denied time to others. After hearings, the FCC declared that a station operator cannot advocate a personal point of view, being the temporary lessee of a public medium. Immediate protest rose from the radio industry, whose leaders declared that since newspapers have the right to editorialize,

to deny that right to radio was an abridgement of freedom of speech.

In March, 1948, new hearings began, and in June, 1949, the FCC issued a ruling that gives broadcast licensees the right to editorialize so long as fair treatment is given to other points of view.

THE PORT HURON CASE

In June, 1948, the FCC, in deciding on the application of the Port Huron Broadcasting Company, held that a licensee cannot censor speakers' materials, even if he considers them defamatory. Again, protests rose: In many states, a radio station is considered responsible for libelous or defamatory statements made from its studios. Station owners cried out against the injustice of being held responsible for libel on the one hand, and yet being unable to protect themselves by preventing the broadcasting of libelous materials.

A Congressional investigation was undertaken, and the protest generally upheld. A station licensee must abide by the laws of his state as well as by the decisions of the FCC, and in states where the two were in conflict, the licensees were helpless.

Fundamental issues were at stake. The FCC feared the potential danger of giving licensees power to censor speakers' materials, for what is "libelous" or "defamatory" cannot be exactly defined. On the other hand, it is clearly in the public interest to ban libel and defamation from the air.

Lacking a federal law relieving licensees of responsibility for defamation in political broadcasts, the National Association of Broadcasters pressed for state laws. Some fifteen states have passed such legislation.

ABC-PARAMOUNT

When, in May, 1951, ABC and United Paramount Theaters entered into a merger agreement, people who remembered

that ABC had once been NBC's Blue Network wondered whether the FCC would approve. United Paramount Theaters owned a television station in Chicago, affiliated with CBS, and though terms of the merger agreement included its sale to CBS, UPT also owned and operated three stations, in New York, Pittsburgh, and Washington, while ABC owned stations in New York, Chicago, Detroit, Los Angeles, and San Francisco. The FCC deferred hearings on the ABC-United Paramount Theaters merger application, setting them for a consolidated hearing with Paramount Pictures-DuMont license renewals. After almost two years of hearings, during which the entire question of motion picture interests in television was explored, the FCC, in February, 1953, decided in favor of the merger, declaring that it would stimulate competition. ABC-radio had never reached the size of CBS and NBC, and ABC television was without the resources of the larger networks. ABC Paramount would be a strong competitor, and competition is a necessary stimulus for broadcasting in the public interest.

CHANNELS FOR EDUCATION

In April, 1942, the FCC set aside 242 channels for the exclusive use of educational institutions. The decision followed a long series of hearings and was a compromise between, generally, educational and commercial broadcasters' requests. The majority of educators feared that, unless channels were reserved for them, none would be available by the time their rather cautious institutions were ready to start television broadcasting. Most commercial broadcasters protested on the grounds that as part of their public service they would give time to educational programs as they had on AM radio stations. Educators referred to the scheduling difficulties that had frequently interfered with the presentation of educational programs on commercial stations—programs shifted to undesirable times in order to make room for sponsored broadcasts—and pointed out that it is as unreasonable to expect a commercial station to

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turn down a sponsor as it is to expect educational programs to succeed when presented at bad listening or viewing times. There were other arguments, too, but in the main the commercial broadcasters felt that the educators should compete with them on an equal basis for channels and educators pleaded for consideration of their institutions' necessary slowness in spending public funds.

In its decision, the FCC said "All things considered, it appears to us that the reservation of channels for noncommercial educational stations, together with continued adherence by commercial stations to the mandate of serving the educational needs of the community, is the best method of achieving the aims of educational television."

COLOR TELEVISION

Experiments in color television were conducted as early as 1940 and its eventual success was so certain that when, after the war, black-and-white television was launched on a commercial basis, there was some opposition on the grounds that color television would soon be perfected. The color television technique then being developed by CBS involved the use of a color wheel, but RCA engineers declared that their electronic color television system was far superior. The FCC ruled that it would be unwise to delay black-and-white television and that the only color system it could consider in the future would have to be compatible with existing television transmission—that is, capable of being received in black and white on existing sets.

Intensive experimentation and research by television scientists and engineers followed, and in 1950 after a long series of hearings, the FCC gave approval to the CBS system of color transmission, which, though still incompatible, could be received on existing sets with relatively minor adjustments. NBC and RCA successfully sought an injunction, demonstrating a nearly perfected system of compatible, electronic color trans-

mission. RCA offered its findings to the television industry, and continued exhaustive tests over their own experimental stations. By 1953, CBS and other members of the industry had joined RCA-NBC in requesting FCC approval of the electronic system of color transmission, and in December, 1953, after a series of demonstrations and further hearings, the FCC gave the go-ahead to commercial color television. On New Year's Day, 1954, the Tournament of Roses at Pasadena, California, was televised in color by NBC as the first nationwide colorcast from the West Coast.

STATION LICENSING

Few FCC cases make headlines or influence broadcasting policy to any great extent, for they are concerned with the issuing and renewing of licenses. The FCC often must decide between two or more applicants for the same frequency. The basis for decisions is: Which applicant will provide the best broadcast service in the public interest? Applicants are required to submit detailed statements of program policy, on which cases can be decided, but decisions are also made on, or influenced by, other factors.

In 1940, two applications for a license to operate a station in Ottumwa, Iowa, were received by the FCC. After hearings, the FCC said in its decision,

> Having considered fully all relevant and material facts and circumstances in the record in each case, the Commission concludes and so finds that public interest, convenience, and necessity will be better served by the granting of the application of John Doe for the following reasons: The applicant, John Doe, is shown to have had a great deal more qualifying experience than the applicants in Docket No. 5809, and from the standpoint of public interest is better able to operate the proposed station. He has no other business interests in Ottumwa and would personally manage, direct, and supervise generally the operation of the proposed station, including the broadcasting service thereof. Unlike the applicants in Docket

No. 5809, John Doe is prepared personally to assume the full responsibilities incident to the conduct of a station and would not delegate major functions to third persons.

The applicants in Docket No. 5809 own two large retail business establishments in Ottumwa, which are proposed to be advertised extensively over the station. If their application is granted, the proposed station would be operated by a third party who would be employed as general manager thereof on a profit-sharing basis. He would have and exercise general supervisory authority over station operation and the broadcast program service thereof, including the approval and selection of program continuities. The applicants would seek and be guided by his advice in all matters pertaining to station operation. The program service proposed to be rendered by the applicant John Doe appears to be more definitely designed and adapted to serve the needs of the community than is that of the applicants in Docket No. 5809.

This case illustrates some of the tendencies which, though never formalized, have become apparent over the years. Both applicants were equally well qualified financially but one was better qualified professionally and would give his time exclusively to the station. Generally, if all else is equal, FCC licenses are decided on one or more of the following.

1. *Local Ownership.* The FCC prefers to grant station licenses to local businessmen rather than to absentee owners.

2. *Reputation of Applicant.* The FCC investigates the record of applicants, and in choosing between two will take into consideration previous business or legal difficulties. The applicant best qualified financially and professionally is usually granted the license.

3. *Misrepresentation.* Fraudulent representation of ownership disqualifies a licensee automatically, and is reason enough to refuse to grant a license even without competing applicants. Most attempts to disguise ownership are to get around FCC rules banning multiple ownership of stations within the same area, or alien ownership.

4. *Community Service.* The amount of community service an applicant proposes to offer influences the decision. One

license was refused because the applicant meant to use his station primarily as a network relay, instead of originating or otherwise providing broadcast service.

PROJECTS FOR SELF-IMPROVEMENT

1. What other controls exist in broadcasting? Talk to a station manager in your area and find out if there are ever local complaints against specific broadcasts, and what he does about them.
2. Make a survey of what local broadcasters, advertisers, educators, and members of the community define as "broadcasting in the public interest." Compile the statements into a single definition.
3. What engineering, tower height, and similar regulations exist in your community? What are the "ham" license regulations?

CHAPTER THIRTEEN

Stations and Networks

FIRST CAME the radio stations, each programmed separately, then the coöperative hookup between stations for a special broadcast, and then the idea of a permanent hookup to link a number of stations in a network programmed from a central source. In 1926, when nineteen stations across the country carried a play-by-play description of the Rose Bowl Game in Pasadena, California, through the newly formed National Broadcasting Company, national network broadcasting was established. The Columbia Broadcasting System was formed the next year, and a few months later NBC's second network, the Blue, entered the field. Until 1941, CBS and NBC's Blue and Red networks (named for the color of the sheath covering each network's wires) dominated nationwide broadcasting. Regional networks operated in many areas, such as the Pacific coast's Don Lee Network, and four powerful stations in New York, Cincinnati, Detroit, and Chicago formed a cooperative hookup known as the Radio Quality Group. In 1941, these four stations were joined by the Don Lee stations, and became the Mutual Broadcasting System. Two years later, after Mutual's protest to the FCC and the subsequent hearings and regulations on chain broadcasting, NBC's Blue was sold and, as the American Broadcasting Company, became the fourth national radio network. Attempts to establish a fifth—such as the Liberty Broadcasting System, which had a brief existence after its for-

mation in 1950—have failed, and with radio network sales dropping, and local sales increasing, it is unlikely that more will be made.

Television, though nourished on national network funds in many instances, followed a similar growth pattern; first, the stations, and then, as relay systems were improved and perfected, regional, and finally national networks—NBC, CBS, ABC, and DuMont. But in television, as in radio, the independent station operates successfully in competition with the network affiliate, and the public benefits from both.

CLASSIFICATIONS OF STATIONS

Broadcasting stations are classified in a number of ways. The rough divisions between them are based on type of signal—AM, FM, or TV; source of income, organization, operating power, and type of service. But to understand them and the bewildering number of subclassifications, we have to start at the beginning, with the one thing all stations share—the air waves.

The electromagnetic waves whose cycle is suitable for carrying sound are called "radio waves" and are identified by the frequency of their cycle. The low-frequency waves are measured in kilocycles, or thousands of cycles per second; the high-frequency, in megacycles, or millions of cycles per second. The low-frequency waves are long waves, following the curve of the earth. The high-frequency waves are short, traveling only to the horizon.

AM signals are transmitted on a band of low frequency, long waves; from 550 to 1600 kilocycles. FM and TV signals are transmitted on much higher frequencies; the TV band begins at 54 megacycles, the FM at 88 megacycles, and the TV band goes into the very high frequencies, VHF, and ultra-high frequencies, UHF.

A powerful AM transmitter can send its long-wave signal hundreds of miles; but it sends out also a sky wave which is

dissipated by the sun during the day, and bounced back from the ionosphere at night, so the AM signal travels even farther at night. The danger of interference among AM stations using the same frequency is great, and magnified after sundown.

Since the AM broadcast channels—roughly the carrier wave and two side bands of broadcast signals—know no boundaries, they have been divided by international agreement to assure each country national sovereignty over its own broadcast signals. Certain channels have been, in a sense, cleared of the danger of interference by being reserved for high-power transmitters. Fifty-nine have been set aside for North America, and forty-six of these assigned to the United States. These are the clear channels. The United States has sixty other channels.

The problem of fitting 3000 AM broadcasting stations into a total of 106 channels is handled by the FCC. More than one station can use the same channel if enough distance separates them and their signal power is not too great; by regulating operating power, the FCC has made room for the maximum number of stations. However, the international agreement specifies that at least one high-powered station be assigned to each clear channel; this means, obviously, that fewer stations can be assigned to each clear channel and, because the signals travel farther at night, twenty-four of our clear channel stations have exclusive use of their channel at night.

The picture then is this: we have 106 channels altogether. Forty-six are clear channels, which can accommodate relatively few stations. The others include forty-one regional channels, for medium power broadcasting, accommodating far more stations; and six local channels, for the use of hundreds of low-power stations whose signal travels a shorter distance. The FCC allocates the power of stations roughly as follows:

Clear Channels are assigned as Class I, for stations operating at 50,000 watts, the maximum power the FCC permits. Class II stations operate on clear channels at between 10,000 and 50,000 watts. Most clear channel stations are located in metro-

politan areas, but a Class II license is generally issued to stations whose signal will carry into areas too poor or too remote to support their own stations.

Regional Channels are generally assigned to stations which serve a metropolitan area and consequently a condensed population. Regional stations are licensed to operate at power varying from 500 to 5000 watts.

Local Channels are assigned to stations operating at between 100 and 250 watts; many are located in metropolitan areas, but a large number are in small towns and rural districts.

To spread the channels as thinly as possible, stations are licensed for hours of broadcast.

An *unlimited license* permits a station to broadcast for 24 hours; few do, but they must provide some nighttime broadcasting or lose the unlimited broadcast permission.

A *daytime license* permits broadcasting from local sunrise to local sunset; more stations can be on the air during the day than at night.

A *limited license* is a daytime license issued to a Class II clear channel station located east of the dominant station, and allows it to broadcast until sundown in the dominant station area.

A *shared-time license* is assigned stations using the same frequency in the same area, which cannot broadcast simultaneously, but work out broadcast hours by mutual agreement.

A *specified hour* license is similar to shared-time except that the hours of broadcast are specifically stated when the license is issued.

FM LICENSES

Because FM and television use the higher frequencies, with less chance of interference, station classification is less rigid. FM stations are generally *Class A,* low-power stations similar to local AM stations, and *Class B,* higher power, similar to re-

gional AM stations. FM's slow start, slow sales of receivers to a public not convinced of its superiority to AM, and the fast rise of television, has hindered its development. Some AM stations took out FM licenses and transmitted the AM program over FM, but few independent FM stations have succeeded. Although in December, 1947, close to a thousand FM stations had been authorized, more than 700 were under construction, and 374 were on the air, by 1953, the number of authorizations had dropped to 630; in 1953, fifty-four stations were under construction, and forty were on the air. Certain FM frequencies have been reserved for educational use, and by and large, FM is the educator's medium.

TELEVISION LICENSES

Channels for television stations are assigned from the VHF band, between 54 and 216 megacycles; and from the UHF band between 475 and 890 megacycles. After World War II, when telecasting started over again, only the thirteen VHF channels were used; channel number 1 was reserved for experimental use; channels 2 through 13 for broadcasting. The twelve VHF channels were originally thought sufficient to accommodate 394 stations throughout the country; as stations went on the air, it became clear that the television signal carries farther than had been originally thought. Interference between stations on the same channel developed because of insufficient mileage separation; the 1948 freeze order went into effect when only 108 stations were in operation. FCC engineers studied the possibility of successfully using the UHF frequencies and announced first that forty-two UHF channels could be added to the band; later, after considerable experimentation by engineers throughout the country, the FCC said that the number which could be used was seventy. This gave a total of eighty-two television channels—the twelve VHF, channels 2 to 13, and the new UHF channels 14 to 83.

The problem then was to allocate the channels fairly to provide a maximum number of stations. In 1953, the freeze was lifted and the allocation system announced. Channels would be assigned to the entire country on a city-by-city basis, with both UHF and VHF channels assigned to the same community. Since UHF stations have less coverage than VHF stations of the same power, cost somewhat more to build, and cannot be received by television sets without special adaptors, the VHF are the preferred channels and would be used up in some communities before neighboring ones were able to afford to erect stations. The FCC report provides for 2,053 new stations in 1,291 communities, including territories and dependencies. Of these, 242 were reserved for educational television stations.

Community station licenses are issued to stations serving a small population area, and are generally of low power.

Metropolitan or *rural* licenses are issued for stations in metropolitan areas with high-power transmitters capable of covering a large rural area.

TYPES OF STATIONS

Commercial stations are supported by funds derived primarily from sale of time to advertisers. *Noncommercial* stations, which make up about 3 per cent of the total, are supported by local, municipal, or state governments or educational or religious institutions. The programs of a noncommercial station may be designed for classroom listening or for upper-level entertainment community listening or both. In some communities, commercial stations, such as KFAC, in Los Angeles, WQXR in New York, WFMT in Chicago, provide the same type of entertainment for a rather limited audience, and in many areas the commercial stations give time to educational organizations for programs directed to classroom listeners or adult education. The noncommercial station provides a program service which would generally not be commercially profitable.

TYPES OF STATION ORGANIZATION

Stations fall into three groups, network owned and operated, network affiliated, and independently owned and operated.

Only a score or so of stations are network owned and operated. The majority are owned by private firms who either operate their stations independently or have a contract with a network which makes them members of a larger organization.

Contracts vary among networks, but in general a member station turns over certain hours of its broadcast time for the use of the network, and is paid an agreed sum for the commercial network programs broadcast during those hours. When it is not carrying network programs, an affiliate station operates exactly as an independent station, selling its own time and providing its own programs.

The advantage of network affiliation is the high quality and audience appeal of the national network broadcasts, and the greater time it gives the affiliate to plan and to sell its local programs. The network programs build an audience for the station, and since its time is valued according to audience size, an affiliate station can usually charge more for its time than an independent station. There are a few independent stations with incomes and audiences larger than those of rival affiliate stations, but by and large, independent stations lack the facilities to match affiliates in local programming, and cannot compete with the national network broadcasts.

Whatever its status, a station operates on a local level much of the time, and is in active business competition with all the stations in its area. All stations have similar working organizations—executives and managers, sales and promotion, engineering, traffic, and programming personnel—but the number of departments and the size of the staff varies according to the size of the station, be it independent or affiliated. The functions of these various departments are similar to those of their counterparts in the networks.

NETWORK ORGANIZATION

The various networks are not identical in their systems of operation, but in general they are organized to carry out the same functions.

Basically a network is a central programming and broadcasting agency which supplies programs to various stations throughout the country. About one third of all stations are affiliated with one of the networks, carrying programs which they could not afford to originate themselves, and giving the network a tremendous audience for its sponsors.

A network is first of all a business, run by a board of directors. Second, it is a broadcasting operation, headed by a president, with a series of vice presidents in charge of various departments.

Administration includes the president, the executive vice presidents, the legal department, the treasurer, and the continuity acceptance department.

Engineering includes both studio and transmitter divisions and technical research.

Sales are divided into network sales, spot and local sales, and include merchandising, local promotion, and audience research divisions.

Public Affairs, which handles all serious features, talks, forums, and public service programming, may be part of the Program department but functions separately.

News is frequently a part of the Public Affairs division but has a separate staff.

Station Relations includes the Traffic Division and is in charge of maintaining harmonious relations between affiliated stations and the network.

Promotion includes research, press, information, and library divisions.

Program departments employ about one third of the total network staff, and include general program management, pub-

lic service, program sales, script, production, announcing, and music divisions.

There are additional office and studio management divisions, which include employment office, personnel office, purchasing department, stenographic and clerical services, and guest relations.

The various networks have differing methods of dividing these responsibilities, but usually there are regional divisions which carry out similar functions in their area.

A network's two to three thousand staff members include the regional personnel and staff members of owned and operated stations, but the largest staff is at headquarters.

STATION AND NETWORK OPERATIONS

The four main activities in a station or a network are (1) selling time; (2) programming; (3) engineering; and (4) administering and coordinating the operation as a whole. Operating income is from the sale of time, which in turn depends partly upon a station's power and coverage. However, whether it is a network affiliate or a local station, the sales, engineering, and administration divisions are similar. Salesmen solicit advertisers and market time. Engineers, who have to meet federal requirements and who must be licensed, take care of technical transmission of broadcasts and maintenance of facilities. Administration sets policies, decides budgets, takes care of bookkeeping, accounting, and clerical work—from business correspondence to mimeographing scripts—handles station and program promotion and traffic. Traffic is the coordinating and scheduling of broadcasts hour by hour.

The amount of programming activity is in direct proportion to operating income. Programs must go on the air whether they are sponsored—paid for by advertisers—or sustaining—paid for and broadcast on its own time by the station. In a network or a large station, the program staff is large and specialized, with separate divisions for program planning, writing, produc-

ing, and broadcasting. In a small station, programming is generally part of other work. The station manager may be a part-time salesman and a part-time engineer, as well as a part-time broadcaster. Announcers plan, write, and produce their own programs, mainly from wire news and recorded music, and in addition operate studio control boards. The salesman originates program ideas, and takes care of a large share of station and program promotion. And the engineers have been known, in small radio stations, to make station breaks and announce records when the lone announcer was late. "Combination men," who qualify both as engineers and announcers are standard on many small stations.

In small television stations, a camerman can direct simple programs from the studio floor; announcers serve as floor managers and assistant directors, and anyone who is not in the picture may very well be helping to produce it.

OPERATING COSTS

Operating costs of radio stations are estimated to average about 85 per cent of income, as follows:

Engineering and technical expenses and salaries—15 per cent
Program expenses, talent, wire and record services, production costs, and salaries—30 per cent
Selling expenses—10 per cent
Administration, salaries, building maintenance, etc.—30 per cent

The average station staff has eight or ten full-time, and as many or more part-time employees, primarily talent.

Operating costs of television stations are much higher; the average station has sixty-one full-time, and fifteen or more part-time employees. Costs of operation in a new medium cannot be averaged reliably but in 1953, more than 50 per cent of television income went to program expenses.

PROGRAMMING

The success of a station or network depends upon whether programs attract audiences. Be it large or small, the aim of every broadcasting organization is to present a succession of varied and entertaining programs that will attract the largest possible segment of the public. To understand how stations and networks function, let us look at the simplest type—a local radio station—and focus on a single unit of its operation—the preparation and production of a program.

A station manager with a program period to fill has a choice of procedures. He can buy a ready-made "package" program from an advertising or production agency. He can contract the services of a free-lance performer who has his own program. He can hook into the network if his station is affiliated, or arrange to carry a program originated by another station, through transcription or film or by a special hookup. Or he can plan a program with his staff to originate in the station studios. His ultimate choice is determined largely by the budget, but he must first consider the program in relation to the audience the station seeks, the programs that precede and follow it, programs on other stations with which it would compete, and the requirements of the sponsor or potential sponsors. His first step is usually to consult the sales staff, whose members know which advertisers are interested in buying time and what type of programs they might sponsor, and, often, a specific advertiser who has indicated willingness to sponsor a certain kind of program. In a larger station, procedures are formalized and fixed, with program planning conducted in meetings attended by representatives of all departments; in a small station, program planning may seem almost casual, but it is based on the same fundamentals. Each program series is planned to suit a specific audience, with possibilities for sponsorship, and within the station's limitations of budget and talent resources.

When the general nature of a program series has been de-

cided, it becomes an almost independent operation, with a budget and a staff of its own. If the program originates from an outside source, the budget may include only its purchase price or royalty fee plus a sum for advertising and promotion, and its staff consist of the station announcers and technicians on duty at the time it is broadcast; if it is a station original, its staff will be a miniature replica of every broadcasting operation. Each program of a series must be planned, written, produced; someone, usually the producer or director, handles the administrative work of hiring talent, managing the allotted budget, scheduling rehearsals and coordinating them with other station activities, arranging for promotion, and so on. Some successful major program series have become independent enterprises, with these functions departmentalized and carried out by staffs large enough to operate an entire station, and, in fact, larger than those of many stations. At the other extreme is the program planned, prepared, written, announced, and performed by one individual who also operates the equipment and is responsible for everything from typing the continuity to selling the show. In between, and more representative, is the program prepared and presented by staff members assigned to it as part of their regular responsibility.

In addition to a budget and a staff, every program requires specific physical facilities, equipment, and studio space for rehearsal and broadcast. Complicated productions need hours of rehearsal, only part of which can be effectively conducted in dry-run studios. Assigning studios for rehearsals and broadcasts is the job of the traffic department or manager, but programming must take into account the availability of studios and facilities, which limits the amount and kind of original programs possible. Remote broadcasts are similarly restricted by the number of mobile units available.

Programming, then, is completely integrated with station operation. The program manager with a time period to fill must tailor his ideas to fit station resources as well as an audience and a sponsor. And, although every program is an organ-

ized unit, it is also part of a continuous flow of broadcasts and must be considered in relation to others. A newscast, for example, might be very well prepared and performed, but it can't be placed too close to another news program, or both will suffer. The placement of a program may very well determine its degree of success; to put it the other way around, a given time period cannot be programmed without reference to its relationship to others on the schedule.

Broadcasters employ every device they can to assure continuous audience interest in their program schedule. The fact that a listener who enjoys one type of program will like more of the same has led to the practice of block programming, with similar programs placed side by side over a block of time. Thus several soap serials, a block of popular music programs, or a succession of mystery dramas are familiar patterns on both television and radio.

PLACEMENT

Effective placement of a program obviously requires first that it be scheduled at the time of day or night when its potential audience is available. Thus women's programs are generally placed in the morning and afternoon, children's programs after school, family programs in the evening, and so on. There are, however, a number of factors that must be considered in addition.

The nature and content of a program may make it unsuitable for certain hours. A woman's program that invites home-audience participation, for example, should probably not be placed during the noon hour, when most women are busy. Programs of violence and horror are generally considered unsuitable for the early evening, when children are likely to be part of the audience, though not the intended audience.

The popularity of adjoining programs affects the value of certain time periods. A new series placed immediately following a popular favorite has a better chance for success, because

of the hold-over audience, than if it follows a program of limited appeal. However, though poor placement can harm a good program, the best placement can't save an uninteresting one. The part of the audience still tuned to a station at the close of a popular program stays only as long as its interest is held. If a new series is placed between two popular ones, and is successful, the station has a large audience for a relatively long period. This results in an over-all improvement in station popularity and prestige, and an immediate increase in spot time sales before and after each of the programs. On the other hand, if a new program is placed between two favorites and fails, it may lose the audience for the following programs.

Popularity of competing programs often makes an otherwise excellent placement unsuitable. Some national network programs attract a major share of the available audience; obviously programs on other stations at the same hours compete against heavy odds, particularly if they are seeking the same audience. Good placement schedules a program at a time when its potential audience is greatest, but the potential size has to be estimated in relation to the popularity of competing programs. On the other hand, certain types of programs command greater audiences than do others. Thus, comedy programs are often placed opposite each other at the same hour on several stations. The potential audience for this type of show is so great that a piece of that audience still represents more listeners than would be attracted by a different class of program. But there are no dependable formulas. NBC had a hard time finding a program that would compete successfully with CBS's Arthur Godfrey on television until they tried a series for pre-school children. The programs soon attracted a sizeable share of Godfrey's early morning audience.

The intended audience is a basic consideration in placement, as already indicated, with certain segments of the day normally favorable for reaching certain parts of the audience. A program, however, is scheduled for a specific hour and minute within a segment of the day, and directed to a fairly specific

audience. There is an audience, for example, that prefers quiz programs to mysteries, sports programs to dramas. A popular family comedy may draw most of the available audience at a certain hour, but although its members might not be drawn away by a competing family comedy, some would desert it for a sports remote, some for a give-away, and so on. On the other hand, an average sports program can hold the core of its audience against almost every kind of program except another sports broadcast. Most programs are hopefully planned to appeal to a wide audience, but good placement schedules them at a time when there is little competition for the basic core.

Maintaining the broadcast time is essential for building audiences, who lose track of a program shifted about on the schedule. The original placement of a program should be as nearly permanent as possible, though there are, of course, numerous examples of programs which succeeded only after being shifted to a more favorable time. There are also examples of programs desperately shifted from spot to spot in the vain hope that a different placement would save them. These planned shifts in placement, however they work out, are calculated risks; one of the problems of program placement is avoiding shifts that are necessary because of schedule conflicts. For example, programs are generally sold in multiples of thirteen, but if a sponsor fails to renew his contract after the first thirteen weeks, a program is often carried on a sustaining basis until a new sponsor can be found. A daily program carried as a sustainer for a long period of time is a loss to the station, and if there is a chance to sell the time one day a week for a weekly series, it presents a problem. The short-range solution is to reduce the daily program to a four-a-week series, but then the time period is no longer free across the board. Series planned for daily presentation—serials, for example—must be scheduled across the board, and a daily sustainer is often carried simply to preserve the time for an eventual sponsored five-a-week program series. When scheduling a daily program involves dislodging one or more weekly programs formerly heard

at the same hour, conflicts multiply; in the first place, sponsored programs cannot be shifted without the sponsor's permission, which may be impossible to obtain. But even if a sponsor can be persuaded to accept a new time, the program previously heard at that time must then be shifted, and the entire schedule as well as the station operation adjusted to the succeeding changes. The problems of shifting programs are complicated, but more serious is the effect on the audience. A steady audience associates a certain hour and day with a favorite program, stays home for it, makes plans around it. The faithful will follow it wherever it goes, but the longer the broadcast time is maintained, the more the program becomes a habit.

PROMOTION

Promotion—advertising a program to the public—is important to its success. However, no type of promotion is as effective as the word-of-mouth praise of an enthusiastic audience. And, though a brilliant publicity campaign can convince a large number of people that they should stay home for a particular program, it cannot turn them into an enthusiastic audience. Once the program begins, the audience decides for itself. However, this does not mean that word-of-mouth publicity is the only effective promotion or that a good program will succeed without promotion. Ideally, a new program series is well publicized before it begins, and regularly promoted by its audience and its producers afterwards. Inevitably, the budget is a limiting factor, but promotion need not be limited to paid publicity.

Newspaper and magazine promotion includes paid advertisements and the so-called free publicity of feature stories, items in columns, and so on, prepared by the promotion staff and distributed as hand-outs to selected publications. Whether or not the hand-outs are used is a matter of chance; unless there is a shortage of material they usually are not, since the average program does not have names and personalities the public is

curious about. Part of promotion is to find and to build up interest factors inherent in performers or programs.

Station promotion of a program includes station-break reminders of the time it begins, standard spot plugs, and plugs worked into other station programs.

Internal promotion is sometimes only the interest-whetting description of next week's show included in the closing announcement of this week's, but covers contests, mail requests, box-top give-aways, and every device that will attract interest.

DAY-BY-DAY OPERATION

Whereas the focus of a station or network is on programming, production, and sales, its day-by-day operation involves a large amount of technical and clerical work. It is a business and requires the usual business staff of clerks, accountants, and typists. It occupies a building, or part of one, which requires the usual maintenance services, plus a highly specialized staff responsible for costly equipment. Because it is a licensed business, it has specific obligations to meet; first, every minute of the broadcast schedule must be meticulously accounted for in the station log, which shows the minute and second each program went on and off, whether it was sponsored or sustaining, live, transcribed, or filmed. Second, it cannot, like a private business, close up shop at will, but must be on the air a specified minimum number of hours daily. Third, it must be on constant guard against accidental breaches of good taste in broadcasts, and each broadcast must be sent out from the transmitter on a specified frequency, which must be maintained at all times.

Then, because it is also in show business, a station or network has a public relations job to perform. Although multiple activities of business and broadcasting are in progress, fan mail and visitors cannot be ignored. In networks and large stations, public relations is a separate department but in even the smallest, it is an additional staff responsibility.

Managing a station or network becomes a job of coordinating day-by-day business operations with a programming and production schedule that presents scores of independently planned and performed broadcasts daily.

PROJECTS FOR SELF-IMPROVEMENT

1. Which are the local, regional, and (if any) clear channel stations in your community? What network affiliates are there? Compare the printed broadcast schedules of each station; how many programs are originated locally?
2. Find out the personnel requirements—technical, clerical, performance, and so on—in various stations in your community.
3. What production facilities and talent are available for programming at your community stations? Find out what is required technically, and what the costs are, for originating drama programs, remote broadcasts, audience shows.

CHAPTER FOURTEEN

The Advertising Agency

TELEVISION and radio depend for their income on the sale of time to advertisers; however, advertisers do not depend upon radio and television to sell their products. They have newspapers, magazines, billboards, and various competing mediums to choose from, but in spite of this (and of the fact that not all products can be advertised on radio and television), advertisers buy hundreds of millions of dollars' worth of time each year.

ADVERTISING IS BIG BUSINESS

Networks and radio stations have advertising departments; most good-sized businesses, certainly all big ones, have advertising managers if not complete advertising departments. Much advertising is sold directly to small firms and retail outlets by radio or television salesmen. But most large advertising accounts, and in radio and television all network accounts, are handled through advertising agencies. What does the agency do that couldn't be done just as well by a firm's advertising manager and a station salesman?

The answer is that advertising is big business. It pays to advertise only if the advertising reaches the right market with the right message. Every business that sells products or services

sets aside a budget for advertising and wants the most it can get from every dollar. A small retail firm that wants to appeal only to the local market can buy newspaper space, spot announcements, billboard space, transportation advertising, hire a plane to write the firm's name in the sky, sponsor a competition or a local team, have throw-aways printed and delivered door-to-door, use direct mail, give a rose to every hundredth customer, erect a bigger sign over the store, buy space on a theater program or in the high school magazine—and the owner is solicited regularly by representatives from every sales medium. How does he choose? Sometimes by trial and error, or on the basis of persuasive figures shown him; he judges the success of his advertising by an increase or decrease in sales, and eventually he sticks to the medium that proves best.

A big business seeking a national market has even more ways to advertise. It not only chooses from metropolitan, regional, or local newspapers, trade and consumer magazines, network, regional, and local radio and television but also has a larger number and a wider variety of every kind of advertising. How does it decide between space in a national magazine and a series of ads in local newspapers over the country, or between a fifteen-minute network serial and station break commercials on regional stations in fifty cities? Or whether dressing up the product or enclosing in each package certificates entitling the buyer to purchase an article at a discount would be more effective?

It's not only a matter of deciding what medium to use and whether to use it on a national or local level or both; there's the intensity and frequency of advertising to be considered, and the type of presentation. Every detail of campaign and copy has to be carried out as carefully as it is planned. The business of the advertising agency is to help in the decisions and to see that they are effectively executed. Agency clients are expert in running their own businesses but not always in promoting sales, a job described by the American Association of Advertising Agencies as "interpreting to the public, or to that

part of it which it is desired to reach, the advantages of a product or a service."

Judged by their growth, advertising agencies appear to have satisfied their clients. In the 1860's, advertising agents bought space in publications, frequently in large quantities and at reduced rates, and then sold the space to advertisers, taking a commission of 15 per cent. Circulation figures of publications were not audited in those days, and few advertisers, or anyone else for that matter, had anything like accurate information on the circulation of various publications. The advertising agent made it his business to find out, as nearly as possible, and to judge reader interest as best he could; advertisers, distrusting the usually extravagant claims of the publications themselves, turned to the agent. When stricter postal regulations forced honest auditing of circulation figures, agents stayed in business by improving the effectiveness of advertising copy and placement. From the few agents of a century ago have grown more than 2,000 advertising agencies, employing more than 25,000 persons. About 200 of these agencies, operating in some 400 offices in major cities, are members of the 4 A's (American Association of Advertising Agencies). These are the larger agencies, handling the major share of national advertising. In one year, national advertising totaled $1,100,000,000, of which more than 80 per cent was about equally divided between magazines and newspapers; less than 15 per cent was for network radio and television, and most of the remainder was for billboard advertising. Local and regional advertising was estimated to total twice the national figure.

THE AGENCY'S PERCENTAGE

Advertising agencies today are paid the same 15 per cent commission charged by early advertising agents. But the agencies are paid by the medium in which the advertising is placed. For convenience, let us say that the cost of a radio program handled by an agency is $1,000. The client pays the agent

$1,000 which the agency pays the radio station, less 15 per cent, or $850; the $150 is the agent's commission, paid by the station. To encourage prompt payment of accounts, most advertising mediums offer an additional 2 per cent discount of the net amount paid by the agency. Again using our $1,000 account, the station allows the agency to deduct 2 per cent of the $850, or $17, to give to the client as a bonus if he pays his account promptly. Usually there is also a frequency discount. Frequency refers to the number of spots or time periods sold; the advertiser can buy one spot or hundreds, one quarter hour or a daily or weekly series. If he buys a series of time periods, he gets a discount; usually it must be a series of thirteen or more, sometimes twenty-six or fifty-two. The discount generally starts at between 2 and 5 per cent of the first thirteen or twenty-six periods increasing with each thirteen times to a maximum, anywhere from 10 to 30 per cent. Frequency discounts are set by stations, to encourage long-term buying.

Radio and television time sales are sometimes given as gross billings; that is, the total value of time sold before deduction of agency commissions, frequency, and other discounts. Net time sales are what stations actually are paid, after all discounts and deductions. Gross time billings in radio for 1952, for example, were $702,448,970; net time sales, $464,439,000. Agencies took 15 per cent of the gross; deductions and discounts, as much again.

THE AGENCY'S WORK

Depending upon its size, an advertising agency has a smaller or greater number of specialized departments. If the agency is large, the various operations involved in the preparation and placement of advertising are handled by separate departments within the agency. If the agency is small, several of the operations may be handled by a single individual. But whether the agency is large or small, the same operations are necessary to complete an advertising assignment.

The client first must be approached for his account, and the most common method is through personal solicitation. The agency salesman, or account executive, makes a "presentation" to the prospective client. He describes the history and present activities of his agency, pointing out its success with advertising problems similar to those of the prospective client, and shows samples of the agency's work.

The client is the firm, of course, but represented by its president, sales manager, advertising manager, or all three. Let us assume that together they decide to place their advertising with an agency. The size of the advertising appropriation is up to the client but, given the sales goals the company wishes to achieve, the agency usually advises on the optimum sum that should be spent on a particular advertising campaign. Besides recommending the size of the appropriation, the agency must draw up a plan for effectively placing the client's product before the public. This plan is usually the result of a meeting of the Plans Board, made up of agency heads or directors of its various departments. The members of the Plans Board determine which segments of the public to reach and discuss methods of reaching them. They may decide to devote the lion's share of the advertising appropriation to newspapers and magazines, or to divide the appropriation among the various mediums. But always their choice is determined by which method, in their opinion, will most effectively promote the sale of the client's product. Often they choose a combination of methods.

EXECUTING THE PLAN

When the advertising plan is approved by the client, the agency proceeds to execute it. First, the Media Department goes into action, reserving space and time in newspapers and magazines and on radio and/or television stations. Next, copy is written, and if newspaper and magazine advertising is to be used, illustrations are prepared. These may be drawn by someone in the agency Art Department or sent out to a free-lance

artist. A "rough" or "comprehensive" layout, picturing the advertisement as it will appear in the newspaper or magazine, is then prepared for the client's approval. When this is approved, copy and illustrations are sent to the Mechanical Production Department. Here detailed arrangements are made for the kind of type to be used as well as for such necessaries as electrotypes, engravings of the illustrations, photostats, and so on. As a rule, this work is not done in the agency itself, but sent on a job basis to businesses specializing in the various services.

If the advertising is for radio or television, the production phase of the work is handled by the Radio and Television Department. The agency may have its own Radio and Television Department or may buy production services from a radio or television "packaging" agency. Sometimes, if it serves the client's needs, the agency buys a program or "package" already produced by a broadcasting station or network.

Like a radio or television station, the advertising agency is continually working against deadlines. Advertising copy, art work, production schedule, client approvals, and so on, all must be completed well enough in advance so that finished advertisements, color plates, electrotypes, mats, or radio or television programs will reach the various mediums before the appointed deadline. Schedules are kept by the Traffic Department, though traffic responsibilities sometimes are handled by the Mechanical Production Department and often are checked along the line by the account executive supervising the particular account.

The agency's bill to the client includes a charge for the cost of any materials used to prepare the advertising as well as the cost of time and space in the various mediums. Every bill for materials or services is sent to the Auditing and Accounting Department, where purchase orders for each account are matched with their invoices and deposited in a folder containing all the detailed expenses of that account. The folder with its record of expenditures is known as a "job ticket."

The agency, in addition, checks to see that all the advertising contracted for was in fact used in the various mediums in which it was scheduled to appear. Publications usually supply newspaper tear-sheets or copies of magazines in which the advertising was published. Radio and television stations supply affidavits indicating that the programs were actually broadcast or send to the agency copies of the station log attached to their billing.

After an advertising campaign is under way, research is often conducted to determine the effectiveness of the various advertisements. These surveys reveal interesting information about magazines or newspapers, or supply ratings for radio and television programs, but the best indication to the client that his agency has done an effective job is increased sales of his product.

The advertising agency is a powerful force in radio and television. For example, some 90 per cent of sponsored programs on the national networks are controlled by advertising agencies. This means that the agencies determine what goes into these programs. Critics of radio and television in this country have charged the agencies with usurping the prerogative of the broadcast station licensee. The licensee alone, they say, has the responsibility of determining the content of the programs appearing on his schedule. They suggest that the agency should no more control the content of a radio or television program than it should control the editorials or stories of a magazine in which it advertises. On the other hand, the agencies argue that a client is more closely identified with a program he sponsors than he is with the content of a magazine in which he advertises. They point out that by supplying programs to radio and television stations, they give stations the advantage of program ideas from a number of sources.

PROJECTS FOR SELF-IMPROVEMENT

1. Choose one national network sponsor, and compile a folder of newspaper and magazine advertisements of the product; watch or listen to the broadcast commercials to

see how they fit into the broad advertising campaign. What other forms of advertising—billboard, prizes, etc.—does the firm use?

2. Make arrangements to talk to the advertising manager of a local firm, or to a member of a local advertising agency, and find out the relative effectiveness of different types of advertising for different products. What can't be advertised on the air? What is most effectively advertised in spot commercials, or visually, and so on.
3. Make arrangements to talk with the sales manager of a local station. Find out the cost of different classes of time, and of different contracts. How much free time does the station give to public service plugs, such as safe driving, and various programs?

CHAPTER FIFTEEN

Audience Measurement

FAN MAIL was once the measure of radio program popularity, and a performer's value went up in proportion to the number of letters he "pulled" each week. These happy, innocent days came to an abrupt end when Archibald Crossley announced a scientific audience measurement system which would count the nonletter-writing part of the audience, too. Writers, performers, and advertising men waited eagerly for each new Crossley program rating report. Then "What's his Crossley?" gave way to "What's his Hooper?" as National Hooperatings swept the measurement field, claiming far greater accuracy. Today a score of firms with as many techniques compete—and a nonprofit organization called the Advertising Research Foundation is analyzing the analyzers.

THE UNSEEN AUDIENCE

Consider, for a moment, the task of measuring the radio-television audience, not the total number of set owners—the maximum potential audience[1]—but the number of people listening to or viewing a specific program at the same time. They are not in a single, easily counted group, like theater and motion picture audiences, but broken up into small,

[1] Elmo Roper, Inc., and other research firms frequently survey and analyze the potential audience to determine its composition and characteristics.

widely scattered family circles. They turn their sets on and off with the interests of the moment, which change with the seasons and the hours. Their listening or viewing is conditioned by many unrelated factors: weather conditions and the strength of station signals; availability of other entertainment; the state of their health and of the nation. Thus, it is not only an unseen audience, but a constantly changing one. Systems of audience measurement must be of a continuing nature to compensate for the unrelated factors over a period of time. But, since the potential audience is numbered in millions, it can't be surveyed as a whole. Audience measurement surveys are based on samples. How to obtain a reliable sample is the chief problem in radio-television audience measurement.

Broadcasting supports itself through the sale of time. The advertiser or sponsor buys time on the air in order to advertise his product, not as a means of supporting the industry. Ultimately he judges the value of his advertising by checking his sales chart, but when he buys a program or a spot announcement, he wants to know how many people are likely to be listening or viewing at that time. To plan a program or a sales campaign he wants to know roughly who they are: housewives, men, children, families; and their buying habits, income group, occupations, and so on. In other mediums, newspapers and magazines particularly, the market is defined through circulation figures and geographic distribution of deliveries, whereas tastes, interests, and even incomes can be estimated by the content, style, and purpose of the publication.

In the early days of radio, stations attempted to match this information by offering advertisers maps showing the area covered by the station, its population, and breakdowns indicating the numbers of farmers, factory workers, school teachers, and so on in the area. That was fine, except that it didn't indicate how many of these people had radios, nor how many of them listened at any given time. The number of radio sets sold in the area helped define the potential audience, but still, no one could judge how many of them listened to what pro-

grams. Fan mail gave an inconclusive answer: obviously not every regular listener writes letters to the station or to the performers. What would be a good ratio between volume of mail and number of listeners? Would one out of every five listeners write? Or one out of every thousand? There was no other gauge of audience size, so stations encouraged fan mail through request numbers on music programs, out-and-out pleas to "drop us a card if you like this program," contests, and give-aways. Four hundred thousand listeners requested the free "newspapers" offered by Lum and Abner and fifty thousand mailed in cigar bands for Kate Smith's picture.[2] But were they regular listeners, or just people who had heard of something for nothing? Advertisers, agencies, stations, and networks all wanted to know.

EARLY SURVEYS

In 1929, the Cooperative Analysis of Broadcasting was organized through a research organization in Princeton, New Jersey. Under Archibald Crossley, the CAB offered program-rating reports based on telephone calls made to thousands of listeners in thirty-three cities. Listeners were asked what programs they had heard that morning or afternoon or the previous day. Reports were issued twice a month, and were available only to subscribers, for the most part advertising agencies and networks. Radio and its advertisers felt that for the first time they knew something about the audience, the potential market: the relative popularity of performers, of types of programs, and the hours of heaviest listening.

But in 1934, C. E. Hooper organized a competing audience measurement service, pointing out that the Crossley reports were based on recall by the listener after considerable time had elapsed since his listening. Memories are notoriously fallible, and Hooper claimed that the recall method could not be de-

[2] Today, mail and responses to premium offers are used as gauges of sales effectiveness.

pended upon. His system was based on coincidental telephone calls, that is, phone calls made while broadcasts were in progress. After 1941, the CAB abandoned recall for coincidental phone calls, but by then the Hooperating service was dominant, and in 1946 the CAB was discontinued.

Information gathered through Hooperating phone calls was processed and ratings established according to a statistical analysis of the sample. Conducted in thirty-six cities with local four-network service, they rated programs by percentage of listeners only. The sample obtained was projected for nationwide application.

However, Hooper's system measured only homes with telephones in large cities, and could not be reliably projected for a national measurement, since it omitted nontelephone homes, rural, and small-town homes. Today, Hooper combines telephone calls to random samples with a diary method by which a random sample of nontelephone families in the area keep a record of viewing and listening.

THE NEILSEN RADIO INDEX

In 1942, after four years of experimental research, A. C. Neilsen Company of Chicago offered a new type of audience survey to networks, stations, and advertisers, based on the Audimeter, an electronic device installed in homes. Originally the Audimeter was attached to sets; now it can be hidden in a closet and attached to an electric light wire over which a signal is passed from a special oscillator attached to the radio or television set. The Audimeter registers listening and viewing by station and hour on a continuous tape, moment by moment, up to four sets per home. Reports are issued weekly, with a comprehensive monthly supplement.

The Neilsen survey covers 97 per cent of the country, and the sample consists of fifteen hundred homes, selected to represent every type of person and income group from coast to coast.

The Neilsen Radio Index attempts to answer another question that time buyers ask: "Does popularity of a radio program actually increase sales of a product?" Field men, with permission of the lady of the house, examine and list products used in each Audimeter home, noting package size and similar details. These field men are primarily concerned with keeping the Audimeters in repair, and, obviously, the radio and television sets in Audimeter homes. The repair service is free, and as an inducement for cooperation, field men carry merchandise catalogues, and at two-or-three month intervals, the housewife is allowed to select a free item, ranging in value from $2 to $10. In addition, every two weeks, when the housewife inserts a new cartridge of tape in the Audimeter, she is rewarded by two bright new quarters. Her job is to mail the old cartridge to the Neilsen home office for tabulation, and to insert a new cartridge every two weeks when it arrives by mail. To prevent error, the Audimeter is equipped with a buzzer that sounds constantly from the time an old cartridge is removed until the new one is inserted.

Small as the sample is, Neilsen claims that its accuracy, based on U.S. Census figures, makes possible a national projection. The tapes reveal listening habits such as tuning out the closing commercial, the decline or growth of audiences, differences in seasonal and geographic listening habits, and so on. It cannot, however, distinguish between the radio or television set left on by mistake, or as a muted background for conversation, and the set turned on for concentrated listening.

THE PULSE SURVEY

In 1941, a system of door-to-door interviews using aided recall was set up under the direction of Dr. Sydney Roslow, as "The Pulse of New York" later expanded to Pulse, Incorporated.

Households to be interviewed are selected by a random process, and interviewers are sent to selected blocks within an area

to conduct personal interviews. Four periods of the day are surveyed. The period from 8:00 A.M. to 12:00 noon is surveyed between 12:00 and 1:00 P.M.; 12:00 noon to 4:00 P.M. is surveyed between 4:00 and 5:00 P.M.; 4:00-7:00 P.M. and 6:00-8:00 A.M., between 7:00 and 8:00 P.M.; and 7:00 P.M. to midnight, between 5:30 and 7:00 P.M. the following evening. Seven consecutive days divided into these four parts are surveyed each month. Usually, the first seven days of the month are selected for survey.

The interviewer is given a roster on which is listed all programs available during the period being surveyed. They are divided into quarter hours, listing time, station, and the name of the program. First the interviewer tries to find out what times the radio or television sets were on in each home. If an interviewer is studying the 8:00-12:00 period, he conducts the interview shortly after 12:00, and helps the respondent reconstruct the morning's activities hour by hour to obtain accurate recall of when the radio or television set was on. When the times have been determined, the respondent is given the program roster, to identify the programs heard or seen. By reading the roster the respondent avoids recalling only "name" shows. The face-to-face interview provides an opportunity to discover whether all of a program was listened to, or only part. Frequently, too, reactions to the programs are sought.

The main criticism of the personal-interview type of audience measurement has been that it depends, again, on memory. Pulse, Inc., feels that its method of aided recall removes inaccuracies of memory.

However, in January, 1950, Pulse completed its first Simul-Pulse survey. Simul-Pulse uses coincidental house-to-house audience interviews, instead of aided recall interviews. Interviewers do not ask about listening that occurred some hours before, but, like the old Hooper phone interviews, ask what was being listened to or viewed at the moment of the visit. Pulse ran its first Simul-Pulse survey for New York's WOR in the first week of November, 1949, when interviewers made

50,000 house-to-house visits in the New York metropolitan district. The new technique, according to Dr. Roslow, gives an accurate count of listeners as well as homes, enabling advertisers to compute cost-per-thousand listeners.

SCHWERIN SYSTEM

In 1946, the Schwerin Research Corporation began the commercial testing of radio programs by a panel method similar to the program-analyzer survey developed earlier by Paul Lazarsfeld and Frank Stanton, with whom Horace Schwerin had done early work in audience measurement.

The Schwerin survey is not designed to measure the size of the audience, but its immediate reactions to a program. Some three hundred people are invited into the studio for each panel session. Each fills out a questionnaire covering detailed information concerning age, education, occupation, radio listening habits and preferences, and such facts as monthly rental, and possession of a telephone. The audience is then given "Reaction Sheets" and an "Opinion Ballot" for each program they will hear or view. The program begins and members of the audience are asked to "score" the program at intervals. To signal the audience when to react, numbers are flashed on a screen. Listeners mark their reaction in numbered squares on the Reaction Sheet. For each number there are three squares: "Interesting," "Mildly interesting," "Not interesting," providing a continuous record of audience reaction. When the program is completed, the audience answers questions on the "Opinion Ballot." The ballot, like the Reaction Sheet, is printed with numbered squares. Three squares, labeled "Yes," "No," and "No Opinion" are provided for each number. The conductor of the test reads the questions, and the audience marks the answers in order. Typical questions might be, "Do you listen regularly to this type of program?" "Was the acting good?" Reaction Sheet and Opinion Ballot together provide a detailed analysis of the program. After sufficient data has been obtained,

a cross-section sample matching the outside population is selected and the general reaction pattern of the program determined.

It has been suggested that audience reactions in a studio-panel situation may differ from reactions to the same program at home, and since 1949, when Schwerin expanded into television research, home-testing experiments have been conducted.

Members of the television "home jury panel" are given a score sheet which combines questionnaire, Reaction Sheet, and Opinion Ballot. The score sheet is made up of numbered squares, with the squares for each number labeled "Good," "Fair," and "Poor." The numbers are flashed at intervals on the top of the television screen, from the studio, and viewers mark their score sheets as the numbers appear.

Questions eliciting opinions of the program are printed on the back of the score sheet. In a test of "The Black Robe" telecast over WNBT in New York on January 12, 1950, the jury was asked such questions as, "Did you think this program gave an accurate presentation of a police court?" "Did you feel that the judge's remarks in the opening part of the program added to the show?" "Do you think enough different camera angles were used?" "Did the people who appeared sound too rehearsed to you?" Most questions were to be answered by checking "Yes," "No," or "No Opinion."

When results of such program testing are compiled, a cross-section sample is again projected to determine total listener reaction.

RADIO STATION AUDIENCE RESEARCH

The national and regional audience measurement surveys are primarily concerned with programs. What kinds of programs appeal to the most people? What kinds appeal to the most women, or children? What kinds of programs draw the largest audiences in the evening? Indirectly, the surveys reveal much concerning listening and viewing habits, local and re-

gional differences in preferences, and other useful information such as the significance of promotion, reactions to commercials, importance of station strength, and so on. From the accumulated data it is possible to estimate the relative popularity of various radio stations in the surveyed areas. But it can be only an estimate. Nevertheless, local advertisers want the same market information available to national sponsors. Both local stations and national networks are interested in finding out the size and composition of individual station audiences. The subject is not entirely shrouded in mystery, of course. Every individual station has some method of estimating its audience coverage. But as C. E. Hooper once said, "Needed was a substitute for the confusion resulting from one station's use of a compass to describe its 'coverage' area, another its imagination, another its half-milivolt contour, a fourth its 'mail' map, a fifth its 'merchandisable' area."

Hooper City Ratings provide individual station audience measurements for stations in seventy cities, and the Conlan Surveys are available to any station in any community. Conlan Surveys are based on coincidental telephone interviews conducted day and night for a period of a week. Though the sample is larger than that used by Hooper, the telephone-home limitation remains the same. In addition to these, some universities offer skilled audience research facilities to local stations, usually based on house-to-house interviews, and often providing more intensive and probing research than the national organizations can. And, of course, many stations conduct surveys of their own devising, often naïvely assuming that what Hooper could do, they can do, too; that is, use a telephone. Without background in research methods, nor any information concerning statistical analysis nor what constitutes an adequate sample, one station called numbers picked "at random" from its own mailing list, and came up with the good news that it was the most popular radio station in town.

A fourth method is used by the American Research Bureau. This is diary alone without the telephone method as Hooper

used. It consists of sending diaries to a cross-section of homes in a television station's area. The people are requested to keep a record of the family's viewing habits for a week. The diaries are returned and ratings are computed from the information assembled in the diaries.

A fifth, final, and as yet largely experimental method of measuring the television audience, is *Radox* used by the Sindlinger Company. Their method involves hooking up to a sample of television homes leased telephone wires. Then by dialing in each home, the operator can hear what is being listened to on that television set. The telephone wires into the home are hooked up to the television set. The operator, then, can keep a record of what is being seen on the set.

Much television research involves evaluation of commercials. The advertiser who is investing a great deal of money in the medium, for a very commercial purpose, is eager to learn the impact of his commercials. A number of companies operate in this field, using variations and combinations of interview, preview, and push-button techniques.

THE BROADCAST MEASUREMENT BUREAU

To meet the need for uniform station audience measurement, the Broadcast Measurement Bureau was established in 1945, with the financial support of the broadcasting industry and the hearty endorsement of the American Association of Advertising Agencies and the Association of National Advertisers.

The BMB survey is conducted by mail. Ballots are mailed to over half a million families in more than 20,000 urban communities and 3,100 rural areas. The sample is based on a cross-section of each of the 3,072 counties in the United States, weighting economic and cultural levels in relation to geographic location and size of the community. County returns are not tabulated until at least half the ballots for each type of community have been returned. After returns are tabulated, they

are released to subscribers, expressed in terms of percentages of listening intensity county by county.

Families in the sample selected do not sign their ballots, but fill out questions such as, "How many people are there in your home?" "Do you have a telephone?" "Do you have an auto?" They list the call letters of the stations they listen to, and check the frequency with which they listen to individual stations at night and during the day.

The individual station reports are augmented by Area Reports, a summary of individual station reports for each city and county. Networks use Broadcast Measurement Reports of individual stations in their chain to establish network coverage. Previously each network surveyed its coverage area independently, and though results were reliable, they could not be compared with results of other network surveys conducted by different techniques.

In 1950, the NAB approved the new million dollar Broadcast Audience Measurement, Incorporated, to replace the Broadcast Measurement Bureau.

OPINION RESEARCH

Audience measurement surveys are concerned primarily with facts, not opinion. Whether conducted by recall or coincidental telephone interviews, door-to-door roster method, Audimeter or mail ballot, they measure numbers of listeners, determining the relative popularity of various programs or stations by the size of audience. The Schwerin panel test and the Stanton-Lazarsfeld program analyzer record reactions to individual programs in an attempt to find out why one or another is popular. On the basis of information brought forth in these surveys, it is possible to make certain judgments about listeners' attitudes toward radio. The size of the general listening audience is in itself an indication of a favorable attitude toward radio and television. Very large audiences for one type of

program and small audiences for another constitute factual evidence opinions of them. However, audience measurement surveys deal with radio and television as a series of broadcasts. They do not attempt to find out the American listener's attitudes toward broadcasting as an industry or as a social force. Broadcasters, however, have a keen interest in the public's estimation of their over-all service, but until 1945 there was no large scale, intensive research to determine attitudes toward broadcasting as a community and national institution.

THE NATIONAL OPINION RESEARCH SURVEYS

In 1945, at the request of the National Association of Broadcasters through a committee headed by Frank Stanton, the National Opinion Research Center undertook a survey of American attitudes on radio. An independent academic organization, then located at the University of Denver and now at the University of Chicago, the NORC has a staff of trained interviewers scattered throughout the United States. These interviewers asked thirty questions of 3,529 respondents, 82 per cent of whom considered radio's over-all service "excellent" or "good." Results of the survey indicated that the people generally liked what they heard.

In 1947, a year after the publication of the first survey, a second was undertaken by the NORC, again at the request of the NAB. In order to make possible a comparison in attitudes and trends, many of the same questions were asked, and the final questions were developed in cooperation with sociologists and social psychologists.

The questions were asked of 3,529 people, representing a cross-section of the adult population of the country. Questions ranged from "On an average weekday, about how many hours do you listen to your radio?" to "As you know, there are other countries like England where everybody who owns a radio set pays a license fee and there is no advertising on the radio. Suppose you could get your present radio programs without

any advertising in them if you paid a license fee of $5 a year. Would you rather have the advertising, or would you rather pay the $5 fee?" There were, in addition, questions concerning commercials, types of radio programs, and respondents' attitudes toward movies, books, and newspapers. Answers indicated that the vast majority of American listeners are satisfied with radio as it is. Only 20 per cent, for example, would pay a fee to support radio operated without advertising, although 60 per cent agreed that "Commercials spoil the program by interrupting it." However, 85 per cent felt that broadcasting should be operated as a private business. Program-wise, 26 per cent stated that they listen to the radio only for entertainment, while 20 per cent said they listen for entertainment and serious programs, and wish there were more serious programs. But 52 per cent said, "I like to listen to both serious and entertainment programs, and I'm satisfied with what I get." The over-all results of the survey indicate that 70 per cent of listeners approved of radio in 1947.

Although the above by no means represent all the many audience surveys in radio and television, they serve as examples of the different types of measurement services. Critics may disagree, particularly with reference to quantitative surveys, as to the adequacy of the samplings on which the surveys are based. However, the place of audience surveys is firmly established in the broadcast industry, and as long as they can persuade radio and television clients to buy time on the air, they will continue to be used.

EFFECTS ANALYSIS

Effects analysis is a totally different type of survey which attempts to determine what impact a program's content has upon the attitudes and behavior of its audience. Does the portrayal of crime and violence in broadcast drama tend to make the audience more likely to resort to violent and criminal acts? Does a steady diet of serial dramas turn housewives neurotic? Can a program with a message change attitudes or influence

behavior? These and similar questions have been debated for years, with convincing arguments on both sides but without sufficient data to prove either conclusively. The missing data concern psychological and social problems ranging from the degree to which pre-existing attitudes affect an individual's perception and interpretation of content, for example, to evaluations of the comparative strength of the various conditioning factors that influence behavior. For this reason, effects analysis has become more and more concerned with the social sciences, adapting their techniques as well as integrating relevant findings in order to discover the effects of not only broadcasting but also comics, motion pictures, and every medium of mass communication upon the individual and society.

EARLY RESEARCH

In October, 1938, Orson Welles produced a radio adaptation of *The War of the Worlds,* by H. G. Wells. Although the program was identified as fiction during and after the broadcast, an estimated one-third of the audience mistook it for fact, believing that the invasion of New Jersey by men from Mars was actually occurring. Fear-crazed listeners raced from their homes, some to flee for safety, some to fight the invaders, some to kneel down and pray in the streets, creating a panic which lasted until the following morning.

An intensive study of the broadcast and its effects was undertaken by Hadley Cantril. The findings, published in 1940,[3] showed, in general, that the impact of the broadcast upon individual listeners was so largely determined by their conditioning, education, and other external factors that reactions could be classified according to pre-existing patterns of behavior.

This was, of course, only one of the findings, but it was particularly significant in the development of effects research, since it indicated that reliable results demanded penetrating and detailed analysis of audiences. The same conclusion was reached

[3] Hadley Cantril, *The Invasion from Mars.* Princeton University Press, Princeton, 1940.

by Paul Lazarsfeld and Frank Stanton, who had directed investigations of the effects of radio listening upon reading habits and interest in music. Their findings, published in 1941,[4] convinced them that future studies should be of effects upon whom and under what conditions.

PROGRESS

During World War II, the unprecedented use of radio and motion pictures in psychological warfare, war bond drives, orientation programs for the armed forces, and so on, provided a wealth of material for the social scientist studying the effects of the mass mediums. A number of investigations were conducted [5] to discover how and to what degree radio and films influence attitudes and behavior, and with each, the problems of analysis became clearer. To find out what effect a specific program has had upon a specific attitude, for example, requires more than a detailed analysis of its content and a statistical and analytical breakdown of its audience. It is necessary to know what attitudes prevailed before the program and what other influences may have been brought to bear upon them. Attempts to obtain the information through detailed questionnaires, case studies, interviews, or experimental and control groups must, themselves, be based on skilled research. However, slowly but surely, as techniques are improved, the social scientist is getting a picture of the effects of the mass mediums upon the individuals who make up the audience.

PROJECTS FOR SELF-IMPROVEMENT

1. Watch or listen to a broadcast with a sizeable group, eight or more friends, and conduct an "opinion poll" afterwards to find out how many thought it good, fair, or poor; compute the answers in percentages, then analyze

[4] Paul Lazarsfeld and Frank Stanton, *Radio Research,* 1941. Duell, Sloan and Pearce, New York, 1941.

[5] For one of the most notable, see C. I. Hovland, A. Lunsdaine, and F. D. Sheffield, *Experiments on Mass Communications,* Vol. III. Princeton University Press, Princeton, 1949.

the backgrounds, interests, education, and experiences of the group and see if there is any relation between these factors and opinion. How representative of your community is the group?

2. What audience measurement services are used by stations in your area? Find out from a station manager why he prefers one or another, and what is his total gauge of the success of a program.
3. Find out, perhaps from your local Chamber of Commerce, what the estimated television and radio audience is in your community; the number of homes with sets, the percentage it represents, and the number of businesses engaged in receiver sales, manufacture, and maintenance.

CHAPTER SIXTEEN

Educational Television and Radio

TELEVISION and radio have come to play so large a part in our social and cultural development that it is almost misleading to speak of educational broadcasting as a separate entity, as though all other broadcasting had no educational significance. It is not only because many informational programs, from newscasts and interviews to documentaries and public service broadcasts of important affairs, keep audiences abreast of current events or recreate past ones, nor because some drama and music broadcasts bring programs of cultural value to millions. Rather, it is because every broadcast heard or seen becomes part of the experience out of which opinions, taste, and attitudes are formed, and since so many of them are presented only to entertain, their unintentional role as a source of experience is sometimes considered unimportant. Though it is not the purpose of this chapter to consider the social and cultural effects of broadcasting generally, it would be unfortunate to imply by omission that only the educational broadcasters recognize them or have sole responsibility for them.

DEVELOPMENT OF SCHOOL BROADCASTING

In the early twenties, teachers all over the country lugged their personal radios from home to put them in the classroom for special broadcasts, not necessarily designed for school lis-

tening, either on-the-spot reports of major events or programs which could be used to illustrate or dramatize a subject. Educators had seen the possibilities of radio as a teaching tool from the moment of its inception, but organized school broadcasting came slowly. First, of course, because school systems operate on public funds, and school administrators cannot gamble with them; until radio was firmly established—by businessmen who took a personal risk on the purchase of stock or a station—educators' pleas for broadcast budgets had to be evaluated by administrators in terms of risking taxpayers' money on a still unproven medium. Second, though commercial stations offered program time and assistance in many instances, in the early years when there were few sets in homes, there were far fewer in schools, and those usually the personal property of teachers.

However, in some of the larger cities (where, if a small per cent of the classrooms have radios, the school audience is large enough to justify a program) broadcasts to schools started as early as 1923. In Los Angeles and New York, for example, programs were presented by the school systems with the cooperation of local broadcasters. Other cities followed suit, but for the most part broadcast activities were sporadic. In 1929, the Cleveland city school system established a radio division, making broadcasts a part of the curriculum, and in most school systems now a broadcast division is either a separate unit or part of a department of audio-visual aids.

SCHOOL BROADCASTS BY STATIONS AND NETWORKS

School broadcasts, however, developed simultaneously from many sources. Though most individual commercial stations did not originate school broadcasts, but donated time on the air for their presentation, some presented programs for in-school listening as part of their public service responsibility—WLS and WMAQ in Chicago, KGO in San Francisco, WHAM in Rochester, and a number of others.

In 1928, NBC started its "Music Appreciation" hour, conducted by Walter Damrosch and broadcast weekly over the nationwide network until his retirement in 1942. The "American School of the Air," broadcast weekly by CBS, presented a variety of programs in different subject areas five days a week. Begun in 1930, it was discontinued in 1948.

A few programs broadcast by stations and networks were stimulated by public-spirited businessmen who were neither broadcasters nor teachers: in 1929, George Eastman, of Rochester, New York, gave thirty large radios to the city Board of Education to be installed in school auditoriums so that students could hear the special school broadcasts of the Rochester Civic orchestra, and in 1928, the Standard Oil Company of California sponsored the Standard School Broadcast series, still broadcast weekly over the Pacific Coast portion of NBC.

Nationwide school broadcasting, however, is hampered by the difference in time throughout the country, and the nature of the American school system, which has no regimented national curriculum but puts education in the hands of state and local governments.

SCHOOL BROADCASTS BY GOVERNMENT DEPARTMENTS

Because of the nature of the American school system, the Radio Division of the U.S. Office of Education confines its service to making materials available to educators and broadcasters, and to cooperating on request in the preparation or evaluation of programs. It issues manuals, bibliographies, informational pamphlets, and catalogues of scripts and transcriptions which can be loaned.

State governments, however, through their departments of education, started broadcasts for schools in 1930, when the Ohio School of the Air went on the air over WLW in Cincinnati, a high-power commercial station. A year later the Wisconsin School of the Air started broadcasts over the state-owned station, WHA.

Today, Ohio has its own state station, as do Iowa, Illinois, Oregon, Minnesota, and Michigan, with school broadcasts an integral part of a program schedule, which includes, in addition, adult education and public service programs. The Wisconsin station has grown into a state-wide FM network, and to it and the AM operation has been added a TV station. The University of Iowa operates what was the first state-owned television station, and state-supported television stations are under consideration or applied for in a number of areas.

In some states, Texas and Massachusetts, for example, school broadcasts are undertaken by the state department of education and broadcast over local and regional stations.

THE SCHOOL OF THE AIR

To be useful, a school of the air, an organized series of regular educational broadcasts, must obviously be related to the curriculum of a school. And it must, at the same time, serve a large enough number of classrooms to justify its existence. Some subject matter is generally useful and adaptable to many grade levels and study areas—music appreciation, for example. But the purpose of school broadcasts is to offer teachers specific aid, with programs integrated with the curriculum.

In the large cities, where there is a large, compact school audience, the broadcasts generally originate from a Board of Education radio station or division, and are tied in to the week-by-week subject matter of the curriculum. Many Board of Education stations repeat the same broadcasts several times during the day to give individual teachers an opportunity to choose a listening time that fits the needs of the class.

The state schools of the air work in close cooperation with state departments of education, planning series which will be useful to as many schools in the state as possible. Generally, the state-supported school broadcasts are planned primarily to supplement the curriculums of rural and underprivileged

school areas; if the large cities don't have their own broadcast services, they do have better audio-visual aids.

The purposes of school broadcasts vary with the needs of the individual community, but the organized school of the air can provide for the schools what the networks provide the local broadcasting station—a central source of supplementary material available to any school with a radio. Most school broadcasting services send out materials and guides for utilization of broadcasts, and many provide training courses for preparing or using broadcasts.

The school broadcast tends to equalize differences in facilities between schools in prosperous neighborhoods and underprivileged ones. They can bring experts into the classrooms of many schools at once—the art or science master, the conductor of the orchestra, the visiting celebrity. They can provide schools with materials not otherwise available—developments in science and current social studies too recent to be included in textbooks, for example. They can provide experiences not otherwise available, music broadcasts fitting the student's training needs, dramatizations of historical episodes in terms young people can grasp; health, safety, and social studies dramas that re-enact experiences of young children who can identify themselves imaginatively with the characters. They can present literature dramatically and drama theatrically. In general, the school of the air uses all the arts of broadcasting to stimulate the imagination and speed the learning process.

ADULT LEVEL EDUCATIONAL BROADCASTING

The state-owned broadcasting stations pioneered in the development of general educational programs, bringing the rich resources of the state universities within reach of the remotest farm home. In a number of areas where no state stations exist, educational programming has been undertaken by cooperating agencies.

COOPERATIVE COUNCILS AND FOUNDATIONS

Cooperation between broadcasting stations, universities, and public service groups to meet the challenges of school and general educational broadcasting began in the early thirties. One of the first was the Chicago Radio Council, which until its dissolution in 1940 included representatives from three networks, three local stations, three universities, and was given support by the Rockefeller Foundation and the Carnegie Corporation. The Rocky Mountain Radio Council was established to combine the services of educational institutions, stations, and community groups, with support from national and local foundations, presenting a variety of educational broadcasts on various levels over cooperating stations. In Boston, the Lowell Institute for Cooperative Educational Broadcasting, similar in organization and purpose, broadcasts over its own radio station.

A number of foundations have cooperated on specific broadcast projects. The W. J. Kellogg Foundation gave the National Association of Educational Broadcasters a grant to provide full-time help and to expand the service of the "bicycle network," which was begun in 1949 by New York City's municipal station, WNYC. Outstanding programs were tape-recorded and circulated to other educational stations; by 1951, the network included most of the educational stations, and permanent headquarters were established at the University of Illinois. Programs from various member stations are circulated on the tape network, each station sending the taped programs on to the next after broadcast. In the hope of making the network self-supporting eventually, nominal service fees are levied, according to station power.

The Ford Foundation grants for Adult Education provided the production of four major program series under the guidance of educational broadcasters for use by all educational stations.

Throughout the country, school systems, colleges, and uni-

versities have pooled their resources to share the local educational channel; indeed, the high cost of television equipment and programming all but enforces such cooperation among educational institutions, few of whom could afford to operate a television station alone.

EDUCATIONAL RADIO AND TELEVISION ORGANIZATIONS

In 1930, the National Advisory Council on Radio in Education was organized to study and stimulate radio in education, and a number of local committees and councils sprang up in communities throughout the country, formed by interested citizens eager to lend their moral support to educational broadcasting.

The National Committee on Education by Radio, with a grant from the Payne Fund, made one of the first analytical studies of broadcasting, and in the early thirties was active in demanding reservations of channels for educational use.

Locally, independent organizations are numerous; a few operate on a country-wide basis unifying the efforts of educational broadcasters. The principal ones are the Association for Education by Radio, with headquarters in Chicago; the Institute for Education by Radio and Television, with headquarters in Columbus, Ohio; and the National Association of Educational Broadcasters, with headquarters in Urbana, Illinois.

THE PURPOSE OF EDUCATIONAL BROADCASTING

In general, the educational broadcaster wants to do what the commercial broadcaster cannot afford to do—use prime broadcast time for programs which will not have a mass audience appeal. Programs for schools, broadcasts of classical music, serious dramas, college-level instruction, or technical training for workers do not have mass appeal, but specific segments

of the audience are intensely interested in them. In large cities, the segment of the audience sometimes represents a large enough number of people to make classical music programs, for example, commercially profitable. The commercial broadcaster has a public service responsibility, but he has to stay in business. Commercial stations cooperate in giving sustaining time to educational institutions, but the chief source of friction has been that when a sustaining time period can be sold, the educational program is moved. On the other hand, commercial station managers justifiably complain of the quality of many educational series which drive the audience away, not only from the specific program, but to another station.

The educator who must depend on borrowed time to present his programs is usually also using donated help in preparation of programs, and though in some instances it is experienced help, often it comes from students in training at local colleges and universities. By and large, the quality of programs produced by educators with adequate facilities and their own trained production staff matches any local programming produced with the same budget.

But the purpose of educational broadcasting is larger than general adult or school programming. Walter Baker, vice president and general manager of General Electric's Electronics Division, in testifying before the Hearings of the Temporary State Commission on the Use of Television for Educational Purposes in New York[1] said:

> Beyond the shadow of a doubt, educational television offers us a means of increasing education, and increased education means a stronger economy. If this nation is to withstand the onslaught of the forces of Communism, we must make ourselves economically as strong as we possibly can. The intellectual germ warfare of Marxism can never be effective in a country where the standard of living is high and where no sane man or woman would consider exchanging his or her birthright of a full, free life for a mess of promises. For this reason, and for the reason that we must maintain a strong

[1] Walter R. G. Baker, "Educational TV—A 'Must' in New York State," *Journal of the AER* (February, 1953), Vol. XII, No. 5, p. 52.

economy if we are not to fall under the weight of the cost of continuing preparedness, I believe educational television to be an economic necessity and a means by which we can bring added security to this nation.

The commercial broadcaster can meet the short-range goals of education, reporting and interpreting daily affairs, providing programs of national interest, high-quality entertainment, and on-the-spot broadcasts from remote parts of the country. But the long-range goals of education, raising the level of national economy and education and teaching people to think and to evaluate, require a continuing and developing educational use of the mass media.

PROJECTS FOR SELF-IMPROVEMENT

1. If there is a noncommercial station in your area, or a department of audio-visual aids in your school system, make arrangements to talk to a supervisor and find out the purpose, service, and working arrangements of the station or division.
2. Make arrangements to talk with a teacher or principal in your school system. Find out whether the schools use radio or television, and why or why not.
3. Analyze the programs on the air in your community, noting the number of informational, public service, and educational programs available. How many are sponsored, how many sustaining? Talk to a station manager to find out his point of view on educational programs.

CHAPTER SEVENTEEN

Nation to Nation

ABOVE the entrance to Broadcasting House in London, the Biblical prophecy, "And nation shall speak unto nation," is cut into stone. The phrase has been used by many who saw, in the instantaneous transmission of voice by wireless radio over vast spaces, spirit-lifting possibilities of international communication and understanding. Radio is now more than thirty years old and television firmly established. Without going into the complicated questions of which nations are on speaking terms and which force their people to turn deaf ears to foreign broadcasts, let us examine the purely physical state of radio and television around the world.

RADIO

As of the mid-nineteen-fifties, there were approximately 250 million radio sets in the world,[1] of which more than 133 million were in the United States, whose population of 150 million is a small fraction of the world's 2 billion, 300 million. No other country approaches our percentage of close to 900 radio receivers for every 1000 people. Seven nations, small in area

[1] Because of the secrecy with which some countries guard their production and ownership figures, it is impossible to arrive at an exact total; this figure, and all others in this chapter, come from published reports of the U.S. Department of State, UNESCO, Tele-Tech, and other research and measurement organizations.

and densely populated, have between 250 and 300 sets per thousand: Sweden, Denmark, Norway, the Falkland Islands, the Netherlands West Indies, the Bermudas; seven others between 200 and 250 per thousand: the United Kingdom, Canada, France, Australia, New Zealand, Switzerland, and the Netherlands.

In the twenty-seven countries that make up Asia, only two, Israel and Japan, have more than a handful per thousand. Turkey has 13, China, 2, India, 7/10s, Tanganyika and French West Africa, 2/10s, which make Israel's 140 and Japan's 100 sets per thousand inhabitants seem huge.

But the number of sets per thousand population tells only part of the story. Bermuda's high percentage is achieved with only 10,000 receiving sets, whereas Brazil, with 2,500,000 sets has only 52 per thousand inhabitants, and the USSR with a reported 8,000,000 sets has only 40 per thousand.

Out of the world's 250 million sets, 180 million are owned by the following six countries:

United States of America	133,000,000	
United Kingdom	12,500,000	
Germany	10,500,000	
France	8,500,000	
Japan	8,000,000	
USSR	8,000,000	(of these 80% are said to be wired receivers)[2]

Six other countries account for more than 15 million sets:

Canada	3,500,000
Australia	3,000,000
Italy	2,500,000
Brazil	2,500,000
Czechoslovakia	2,300,000
Sweden	2,000,000

Five countries account for about 8 million more: the Netherlands and Argentina, with close to 2 million apiece; Belgium, Austria, and Denmark, with around a million and a half apiece.

[2] Wired receivers are loudspeakers connected by wire to a central point where radio broadcasts are received and retransmitted by wire. They are inexpensive, but limit—and can control—listeners' choice of programs.

Almost a third of the sets in the Netherlands, and about 5 per cent of those in Belgium are wired receivers.

Figures change year by year, but the proportion of distribution varies only a little; when there are millions more radio sets, most of them will probably still be owned by the inhabitants of the nineteen countries, representing less than half the world's population, who, in the middle of the twentieth century, own 200 million of the world's 250 million radio sets. Roughly 60 per cent are in the English-speaking countries, 30 per cent in Europe, and the remaining 10 per cent—less than 20 million radios—are divided among scores of countries, mainly in South America, Asia, and Africa. Asia has 12 million, for a population of 1 billion, 200 million, and the entire continent of Africa has less than 2 million sets.

Broadcasting stations are as erratically distributed. In India, with an area of 1,246,880 square miles, there are 31; Puerto Rico, an island of 3,275 square miles, has 24. Brazil and the United States, comparable in area, rank first and second, respectively in number of radio stations—and the figures tell their own story.

Rank	*Country*	*Number of Radio Stations*
1	United States	3,000
2	Brazil	254

These are domestic broadcasting stations. The United States also operates overseas transmitters. The State Department's *Voice of America* sends out eighty programs a day in fifty languages on a world-wide short wave network, boosted in many of the free countries by relay stations which pick up the short wave and send it out on medium and long waves. *Radio Free Europe* and *Radio Free Asia,* plus the Armed Forces Radio Service also broadcast day and night to far corners of the world.

The various foreign broadcasts of the United States are received by millions of listeners. The difficulty of measuring the audience is two-fold: in countries where there are few sets per thousand listeners, group and community listening is common

and a dozen people or a whole village may listen to one set. In the Iron Curtain countries, where listening to American broadcasts is prohibited, no count is possible, but mail—letters written covertly and secreted out of the country—indicates a sizeable audience, with estimates running from 10 to 25 per cent in the USSR and even higher in some of the conquered countries. A good deal of the broadcast effort in the USSR is directed at jamming American programs and combatting them. The USSR also sends out overseas broadcasts, as do many other countries, notably the United Kingdom and Canada.

TELEVISION

The number of television sets outside the United States rose from 500,000 in 1950 to more than two and a half million in 1952, and the audience from an estimated two million to twenty-four million. Since then it has increased, but in the middle of the decade, when the United States had 393 television stations in actual operation and hundreds more under construction or applied for, the rest of the world was far behind. For example, there were 32 stations in operation or under construction in Mexico, 27 in Canada, 19 in Cuba, and 14 in Brazil. These four nations, all in the western hemisphere, had a total of only a fourth as many stations as there were in the United States, but were far ahead of the rest of the world in numbers of stations. France, Great Britain, and Western Germany each had 8, the Netherlands had 7, while there were 6 each in Japan and Italy, 5 each in the USSR and Argentina, and 3 in Spain. A few countries, such as Belgium, Colombia, Denmark, and the Dominican Republic, had a single television station in operation, but in most of the rest of the world, television was still in the future. And, except for the United Kingdom and Canada, even where stations did exist, receiving sets were sadly limited.

In the United Kingdom, where the BBC had started television in 1938, ceasing during the war but starting again soon

afterward, there were over four million and a half television receivers; in Canada, where English-speaking residents of the southern border areas received programs via a Buffalo-Toronto micro-wave link long before the CBC began television broadcasting, there were close to a million receivers. But in other countries of the world that had television stations, receivers ran from a few thousand to less than one hundred thousand. And vast areas of the world had neither sets nor transmitters.

The world, then, presents an amazing picture. On the one hand, there is the United States, where radio coverage is nearing 100 per cent, television almost 50 per cent and, in metropolitan areas, is the dominant medium for a majority of the population. On the other hand, there are huge countries in which radio is heard by a tiny percentage of the population and television known only by hearsay.

SYSTEMS OF OPERATION

The systems under which radio and television operate in countries of the world vary from private ownership to complete government control, with some countries combining the two, others operating public corporations or mixing a public corporation with private ownership.

The distinction between government ownership and public ownership is important. If a state broadcasting system is under a ministry or department of government, and derives any or most of its revenue from grants out of the general treasury, it is part of the government. However, a public corporation is not under any government department, but responsible to the main governing body; deriving no income from the treasury or any government grant, but supporting its operation through receiver license fees, sometimes supplemented by advertising revenue. A public corporation is usually set up under a charter which guarantees it autonomy; the fact that its income is not determined by a budget allocation from the general treasury gives it a greater independence. The theory of the public

corporation is that the people who use it, the listeners and viewers, support it directly through receiver license fees, rather than indirectly through taxes levied on set-owners and non-set-owners alike.

The fact of the matter is that broadcasting systems are adapted to, or the outgrowths of, political, economic, cultural, and geographic conditions of nations. In all countries, the air is considered public property and in every country, some degree of control exists over broadcasting. In the United States, it is limited to the issuance of station licenses in the public interest. In Australia and Canada, both of which have huge land areas and small, concentrated population groups, private ownership was not able, in the early days of radio, to provide broadcasts to remote communities; dual systems were set up, with a publicly owned network in each country supplying nationwide coverage, and privately owned commercial stations operating mostly in the large cities. The two systems are not identical, but in each country where the state system was begun on the theory that private ownership could not make broadcasts available to all members of the public, it was the obligation of the government to provide means of doing so. However, the publicly owned radio systems of Australia and Canada are operated as corporations, not as government agencies.

It is almost impossible to generalize about systems of broadcasting over the world. Government control does not exclude advertising revenue. Mixed systems are common, but no two combinations of public and private ownership and operation are identical. Most important, perhaps, the use to which radio is put varies with the political philosophy of each country. Where free institutions prevail, broadcasting is usually free, regardless of the type of ownership.

Most broadcast systems fall into one of the following categories:

1. Private, or predominantly private ownership
2. Government ownership and operation

3. Government ownership with public operation
4. Public ownership and operation

Government ownership and operation is found in the USSR and its satellites, where broadcasting is owned, controlled, supervised, and programmed by the government as a means of controlling information and the attitudes of the people. In the USSR, curiously enough, however, some advertising is permitted; advertising revenue goes into the government treasury.

Government ownership and public operation is found in Sweden, Switzerland, and the Netherlands, where the state owns all stations, transmitters, and lines but programs are provided by private groups, not by government agencies. In the Netherlands, for example, broadcasting time is shared by five religious, cultural, and political societies united in the *Nederlandsch Radio Unie*. Broadcasting funds come from licenses on receivers. In Sweden, also, funds come from license fees and are divided among the Telegraph Administration, in charge of transmission; the government; and *Radiotjanst*, a private corporation in charge of programming. The government is not permitted to censor programs.

Public ownership and operation is typified in the British Broadcasting Corporation, a public corporation, supported by license fees, and answerable to Parliament, although its employees do not come under government civil service and the government is not permitted to censor programs. The BBC television service is partially supported through sponsorship of feature films.

Private ownership and operation is, of course, found in the American system of broadcasting, although some 3 per cent of stations in the United States are supported and operated by universities, schools, and municipal organizations, and at least one station, KPFA, in Berkeley, California, is partially supported by listeners' direct contributions.

Mexico has 206 privately owned stations supported by advertising revenue, and 8 government stations. Chile's seventy-eight

stations are all privately owned and supported by advertising. Paraguay has eight privately owned and two state owned; Argentina, fifty-four privately owned and nine owned by the federal government, provincial governments, and national universities. In Europe, only Monaco operates under a system of complete private ownership, and in Asia, except for the Philippines where a combination of public and private ownership exists, all broadcasting is operated under various kinds of government control. Pakistan, for example, has eight stations supported by a budget voted each year by the government, with neither advertising nor license fee revenue allowed. In Thailand, however, the country's one radio station, located in Bangkok and operating through two low-powered, short-wave transmitters, is publicly owned but supported both by license fees and by advertising.

Possibly the most complicated mixed system of broadcasting is Canada's, where the publicly owned Canadian Broadcasting Corporation operates both a French and an English network, supported by grants and by advertising (until 1953, the CBC also derived income from listener license fees). The CBC network consists of seventeen stations owned and operated by the CBC and forty-eight of the 121 privately owned stations. These forty-eight stations do not carry all network programs, but reserve certain time periods for sustaining network service. Another fifty-five of the privately owned stations join the network at the request of sponsors, and many use sustaining network programs without being required to reserve network time. All network broadcasting in Canada is controlled by the CBC. Privately owned local stations may set up individual regional networks for special purposes but only with the specific permission of the CBC.

In Australia, on the other hand, where a similar mixed system of public and private systems exists, national networks are operated by both the Australian Broadcasting Commission and private broadcasters.

Argentina's broadcasting system is mixed in a different fash-

ion; although the stations are privately owned, a Director General of Broadcasting, under the Minister of Telecommunications, closely supervises all programs. And in Brazil, 248 privately owned stations are supported by advertising, and six, controlled by the state, derive their revenue from listener license fees and some advertising. But all stations, public and private, are required to carry a daily newscast prepared by the federal radio service, and the Postal Department regulates advertising. In the Irish Republic, broadcasts are arranged by a division of the State Department of Posts and Telegraph, financed by fees and sales of advertising for Irish-made products only. In Luxembourg, the privately owned Luxembourg Broadcasting Company operates with revenue provided by sale of advertising time, but license fees on receivers are collected for the state treasury.

The varieties of broadcasting systems existing side by side in the world are an index to the varied cultural and national groups, which some people hope can be brought to a closer understanding through mass communications. Nation can speak to nation today, but in half the world, there are too few receiving sets for people to hear, and laws prohibiting listening.

COMPARISON OF AREA AND POPULATION WITH DISTRIBUTION OF BROADCAST FACILITIES IN TEN COUNTRIES

Country	*Area (sq. mi.)*	*Population*	*Radio Sets*	*Radio Stations*	*TV Sets*	*TV Stations**
United States	3,022,387	150,000,000	133,000,000	3000	31,000,000	588
Mexico	763,944	24,500,000	850,000	214	95,000	32
Canada	3,845,000	13,500,000	3,500,000	166	900,000	27
Cuba	44,206	5,000,000	700,000	99	150,000	19
Brazil	3,286,170	49,350,000	2,500,000	254	75,000	14
France	212,659	41,000,000	8,400,000	45	90,000	8
Great Britain	94,279	50,500,000	12,000,000	121	4,500,000	8
USSR	8,524,750	193,000,000	8,000,000†	130	100,000	6
China	2,279,134	463,500,000	850,000	58	—	—
India	1,246,880	342,000,000	350,000	31	—	—

* Including stations under construction.
† 80% are wired receivers.

PROJECTS FOR SELF-IMPROVEMENT

1. If any stations in your community broadcast to foreign language groups, either continuously or on occasional programs, visit the station to find out the special problems and the purposes of the programs.
2. Watch or listen to local or network programs planned to inform or influence you. Which ones are effective in holding your interest? What convinces or moves you in those that hold your interest?
3. Watch or listen to forums and discussions of controversial or debatable issues. Note the variety of subjects and intensity of opinion—evidences of freedom of speech and thought. How is fair play and equal representation assured?

CHAPTER EIGHTEEN

Transmission of Sounds and Pictures

ONE OF THE dictionary definitions of the word "broadcasting" describes it as "scattering or sending out in all directions." A speaker on a platform is "broadcasting" in the sense that he is providing a central source of sound which is sent out in all directions. However, the carrying power of his voice is limited, the sound waves which his voice sets up in the air travel rather slowly (about 1120 feet per second), and any obstacle between the speaker and the listener interferes with the sound of his voice, partially or entirely blocking it.

Ordinary sound waves vibrate at very low frequencies, middle C, for example, sending out vibrations of 256 cycles per second. Depending on his age, a person can hear these sound waves from approximately 40 to 15,000 cycles per second. Radio, or electromagnetic waves, on the other hand, are far beyond the scope of human hearing, those used in broadcasting ranging from about 100,000 to 700,000,000 cycles per second. These radio waves can be produced with specially constructed electrical equipment. They have the particular advantage of carrying for great distances, and, sent out with enough force (watts of power), they can travel for hundreds of miles. The marvel of broadcasting consists in the perfection of a technique by which the voice of a speaker can be carried by radio waves and be dispatched over great distances without the benefit of

wires. The marvel is compounded by the fact that we have instruments which will capture the radio waves and enable a listener hundreds of miles away to hear the speaker as clearly as if he were standing at his elbow.

The process of radio broadcasting can be roughly described as follows:

The voice of the speaker sets in motion particles of air which agitate an inner mechanism of the microphone, creating an infinitesimal electric current. This current is so small that it would have to be amplified 20 billion times to light a single 60-watt electric bulb. The current, called the "audio wave," is carried through the microphone cable into the control room where it is monitored and balanced and built up in strength by a series of vacuum tube amplifiers. It is then dispatched to the transmitter where it is again amplified by a further chain of vacuum tubes. Finally it is superimposed onto the transmitter carrier wave.

The carrier wave is the frequency or "channel" assigned to a particular station. The carrier wave might be compared to a continuous whistle (inaudible, of course) sent out from the radio transmitter at a specified frequency. It remains constant so that a listener, by turning to a certain number on his radio dial, can consistently "tune in" the same station. Onto this carrier wave the voice of our speaker (converted into audio waves by the microphone and amplified in control room and transmitter), is implanted. When the electric audio wave and the radio wave are brought together, two things occur: first, the audio waves impart their characteristics to the carrier wave, modulating the carrier; and second, since the carrier wave is a radio, or electromagnetic wave, it takes the audio waves superimposed on it and transports them into the atmosphere.

The carrier wave and its hitchhiker, the audio wave, are then picked up by the radio receiver and the initial process is reversed: the two types of waves are separated, the audio waves are transformed into sound waves by the loudspeaker, and the voice originally spoken into the microphone is heard in the

living room of the listener. And since both the audio and radio waves travel with the speed of electricity (186,000 miles per second) the sound in the studio reaches the ear of the listener instantaneously.

AM AND FM RADIO

There are two familiar methods of audio broadcasting for conventional household reception: AM, or amplitude modulation, and FM, or frequency modulation. AM is the most common type, with most of the nation's 3000 stations using this method. All AM stations are located within a broadcast band ranging from 550 to 1600 kilocycles (thousands of cycles). The carrier wave of an AM station is modulated by changes in the amplitude of the wave, with an increase in the volume of a sound enlarging the swell and the dip of the wave.

FM broadcasting is operated in a much higher frequency band extending from 88 to 108 megacycles (millions of cycles), and the FM carrier wave is modulated by changes in its frequency, with the amplitude of the wave remaining constant. The preference of most broadcasters today for AM over FM is not due to its superiority as a broadcasting medium but rather to the fact that AM is an established system and is satisfactory for most listeners. It also has certain advantages for long distance broadcasting since the AM signal has a ground wave and a reflected sky wave which at night bounces off upper layers of atmosphere and carries great distances. However, FM has certain intrinsic advantages of its own. The chief sources of static (lightning, vacuum cleaners, electric razors, and so on) do not affect the FM signal as they do AM reception. Some static is caused in FM reception by car and airplane motors, but these disturbances are not so severe.

BASIC EQUIPMENT OF RADIO BROADCASTING

Special equipment has been developed to carry a radio program from its point of origin to the listener at his receiving set.

Much of this is complicated electrical apparatus. However, without going into lengthy technical detail, we can look at some of the essential functions of the important pieces of equipment required for each of the stages through which every radio broadcast must pass.

STUDIOS

Ideally, studios are constructed to provide optimum pickup conditions for the types of programs that most frequently originate in them. Different stations require different kinds of studios. At one extreme, a combination man serving simultaneously as announcer, record spinner, and engineer in a 100-watt station may broadcast from a room which does double duty as both studio and control room. A station may use a small studio for newscasts, interview or discussion programs, or a larger studio for orchestral broadcasts. Theaters and auditoriums are often converted for use as audience studios for radio and television programs.

STUDIO ACOUSTICS

The voice of the announcer or the music of an orchestra are directly affected by the acoustical setting in which the sounds are made; the way a voice sounds in a marble corridor is different from the way it sounds in a small, heavily draped and carpeted living room. Because the acoustics in a studio are so important for giving optimum characteristics to sound, engineers have devised a number of ways of regulating and controlling them. This involves (1) isolating the studio in such a way as to shield it from outside sounds and disturbances, and (2) treating the studio inside so as to give it the proper acoustical balance.

The first is accomplished by constructing the studio in a manner that will insulate it from sounds in the rest of the building. The studio may be suspended on springs or horsehair

within the frame of the larger structure, separated from adjoining rooms by specially built double walls with dead air between them. Doors are specially constructed to keep out noises, and before opening the door of a studio one must usually pass through a "sound lock" or "sound trap," a little vestibule whose sole purpose is to guarantee that the studio door opens into a quiet area.

THE MICROPHONE

An example of a crude microphone is the telephone, which converts sound waves into electrical impulses through the use of carbon granules and a diaphragm. The telephone, however, does not reproduce the voice faithfully, having a characteristic "telephone" or filtered quality. Modern microphones reproduce sound with much more fidelity. There are a number of varieties of microphones, some of them more sensitive than others, some of them more suitable than others for particular purposes.

Microphones can be classified either according to their mechanical structure or according to their pickup pattern. Structurally speaking, there are three kinds of microphones: pressure-actuated, velocity or ribbon, and cardioid. In terms of pickup pattern, microphones are classified as unidirectional (capable of picking up sound from one direction only); bidirectional (capable of picking up sound from two sides), and nondirectional (capable of picking up sound from all sides).

Pressure-actuated microphones transform sound waves into electrical energy by means of a diaphragm. The sound waves in the studio strike against the diaphragm, and the resultant pressure generates a minute current. There are several kinds of pressure microphones. Among them are the dynamic microphone, the salt shaker, and the crystal microphone. Pickup patterns of pressure-actuated microphones vary from unidirectional to nondirectional, depending on the make. The dynamic microphone, for example, is nondirectional, rugged and par-

ticularly suitable for outdoor use. It may also be used in studios, and its nondirectional characteristics make it suitable for round-table programs. The salt shaker is a less expensive microphone and may be used for similar purposes. It is also nondirectional but may be converted into a directional microphone with the use of a baffle clamped around the top of the microphone cylinder.

The velocity or ribbon microphone converts sound waves into electrical energy by means of a fine, corrugated metal ribbon, one inch in length and one quarter of an inch wide, suspended from both ends inside a magnetic field within the microphone. The vibrations of the ribbon in the magnetic field create electrical energy. A sensitive, all-purpose instrument, the ribbon microphone is bidirectional in its pickup pattern. It is especially popular for use in drama productions, less suitable where a nondirectional pickup is desirable or for rugged outdoor use.

The cardioid microphone combines the principles of the pressure actuated and ribbon microphones. By simply changing the position of a small screw at the back of the cardioid microphone, it is possible to have the microphone provide successively a unidirectional, bidirectional, or nondirectional pickup pattern. The name "cardioid" comes from the heart-shaped pickup pattern characteristic of the unidirectional or bidirectional positions. Because of its flexibility and sensitivity, the cardioid microphone can be used for almost any kind of broadcast. It is frequently employed as the audio mike suspended from the sound boom in television.

FILTER AND ECHO MICROPHONES

Special effects may be achieved with conventional microphones by distorting the sound in the studio or within the microphone circuits. For example, a voice on the telephone is simulated with the filter microphone. This filter can be achieved either by using a microphone with a limited fre-

quency response (speaking into a telephone receiver attached to a microphone cable will give a reasonably good filter effect), or the frequency may be altered with a filter box in the control room. This latter is by far the most dependable method for achieving a filter effect, since a filter box in the control room can be adjusted to cut off any and all frequencies except those desired. By varying the filter a director can achieve the precise quality of filter he wishes.

Another special effect is achieved with the echo microphone. Where the appropriate setup is not available, an echo effect can be worked out by talking across the face of a metal waste-paper basket in front of the microphone, or by placing the microphone under the raised sounding board of a grand piano and talking into it. However, the echo is best achieved with a reverberation chamber or with an electronic device which supplies the same effect. In the former the voice is directed at two microphones in the studio. The impulses are carried directly to the control room through one microphone channel. The second microphone circuit, however, is attached to a loudspeaker stationed at one end of a reverberation chamber. The sound comes out of the loudspeaker and in its amplified form is picked up by another microphone at the opposite end of the chamber and sent back up to the control room. Here it is mixed with the sound coming from the first microphone. The blending of the slightly delayed and amplified sound from the echo microphone results in an echo effect.

THE CONTROL ROOM

From both the technical and artistic point of view, the control room is the point where the program is mixed, monitored, and balanced. The microphone has converted the sound into electrical energy, which is built up by amplifiers. Many programs use only a single microphone, although some dramatic or music broadcasts may employ as many as five or six. The control room is equipped with a high-fidelity speaker, and the

engineer and director can hear the sound just as it is broadcast to the listening audience. The engineer, however, determines whether the sound coming from the various microphone channels is properly balanced by reading the meter on the control board in front of him. The control board (or mixer, as it is sometimes called) has a separate volume control (called faders or "pots" [1]) for each microphone. In the center of the control board is a meter which registers the volume sound coming over each microphone channel. The engineer regulates the volume by turning the volume control, adjusting it forward in a clockwise fashion to increase the volume, in a counterclockwise direction to reduce the volume. A zero at the center of the dial represents the point beyond which the needle should not go and the engineer sees to it that the "peaks," or loudest sounds, on a program do not kick the needle beyond the zero point. This constant process of adjusting the volume with the "faders" is called "riding gain." A high-fidelity speaker in the control room makes it possible for the engineer to hear the program as well as to see its electrical readings on the meter.

MASTER CONTROL

Many small stations have only a single control room overlooking two or three studios. However, if there is more than one control room, the programs must be coordinated through a master control, which receives the programs from the various studio control rooms and dispatches them to the transmitter. A network master control room is an impressive technical center of wall racks containing amplifiers, several monitors and jack panels for patching in various programs coming through master control. There are numerous buttons, switches, and signal lights to insure the coordination of the many programs which come through master control for routing to the appropriate destinations.

[1] "Pot" is an abbreviation for the technical name, "potentiometer."

REMOTES

Programs may originate from points other than studios. A speech in the local auditorium, a sports event, or a Fourth of July celebration all may provide good program material for broadcasts. When the broadcast originates outside the studios, what amounts to a portable control room, with microphones and portable remote amplifiers, is set up by the engineer. The program is carried to the master control room by special telephone lines. If a program originates from a point which is not near a telephone line, it is picked up with mobile or portable equipment which transmits the signal by short wave to the control room.

HOW TELEVISION WORKS

Briefly, television is broadcasting pictures. An electronic camera translates light images into electrical impulses which are sent out over a transmitter and are then picked up and reproduced on a television receiver . . . in the home, local tavern, or department store sales room. This miracle is achieved by a vacuum tube inside the television camera. The two kinds of tubes commonly used are the older iconoscope and the newer image orthicon, which is so sensitive that it reacts to anything that can be seen by the human eye. On the receiving end, the picture tube, or kinescope, in the television set receives the electrical impulses sent out by the television station and changes them back into the same picture as seen in the studio.

The image orthicon vacuum is an intricate piece of equipment highly precise in all its parts. A little more than a foot in length, it looks somewhat like a long flashlight. Inside the tube, at the end nearest the object on which the camera is focused, is a small sheet of mica a few inches square and .00013 of an inch thick. This fine plate of mica is coated with thousands of particles of silver-caesium, and is known as the "mosaic." It

generates an electric charge when exposed to light. The mosaic, then, is a myriad of tiny photoelectric cells; the differing light intensities of a picture cause the cells of the mosaic to emit varying quantities of electrons. An electron gun, or "scanner," located on the other end of the tube, passes its beam along the mosaic, and as it brushes across each cell, the charge is released and a current passes through the circuit of the camera tube.

The scanner operates very much like the eyes when they read a printed page, from left to right, down, and again left to right. A complex circuit of horizontal and vertical deflection coils controls this movement and causes the electronic beam to scan the mosaic in a 525-line zigzag, thirty times each second. (This means that pictures pass before the home television screen at a speed of thirty frames per second as against motion picture film which runs at a rate of twenty-four frames per second.)

It should be mentioned here that American broadcasters use "interlinear scanning" in their television system. Instead of working downward on the mosaic line by line, the electron gun scans every other line from top to bottom and then returns to the second line of the mosaic and repeats the process. Thus every other line of the mosaic is scanned in 1/60 of a second.

The sum total of all the released charges at a given second is a tiny electronic picture. However, this picture signal is so weak that it must be reinforced before it can leave the picture tube. It is strengthened by an electron multiplier, and after leaving the tube, is sent through additional amplifiers to enable it to travel to the transmitter where it is sent out on the carrier wave.

The succession of electrical impulses, transported on the transmitter carrier wave, are intercepted by TV antennae projecting from housetops and are fed into the TV receiver. The process is then reversed: The electrical impulses are changed back into light values by the kinescope. An electronic beam is made to scan the fluorescent face of the kinescope, familiarly known as the "screen." As the tiny fluorescent particles on the screen are brushed on this beam, they flow and describe the

pattern of the image being sent from the television studio.

Unlike amplitude modulation (AM) radio whose long waves follow the curvature of the earth, television waves, though transmitted by amplitude modulation, travel in a straight line. Consequently, after approximately fifty miles, they leave the earth on a tangent. Thus every effort is made to send television signals from a point of high elevation, and television towers are a familiar sight atop the highest mountains near a metropolitan area. In Los Angeles, the towers of all the television stations in the city are located on nearby Mount Wilson to get the full benefit of the extra coverage which high elevation provides. In New York, several stations have installed television antenna on top of the Empire State Building.

Although the picture is primary in television, sound is essential too. The microphone, however, does not assume the importance it holds in radio. On most programs, microphones are kept out of the picture, suspended over the heads of actors on long booms which can be adjusted and moved around to follow the action of the show. Or, as in many discussion and quiz programs, microphones may be concealed on the table at which the participants are seated. Frequently, to simplify production in a studio interview or on remote telecasts, the announcer will hold the microphone in his hand, visible to the audience. This is a practice easily accepted by the viewer since no illusions are violated, as they would be in a television drama.

As with radio, it is essential that all extraneous sound be kept out of television studios. Studios built in the city must be soundproofed against the noise of traffic and the sounds of general activity of any downtown metropolis.

Space, however, is the chief requirement for television studios. Room is needed to accommodate sets for programs and for cameras to move into position for various angles on shots planned by the director. And there must be vertical space for lights to be mounted and scenery flown. A great deal of time and tissue can be saved if there is ample room in a studio to leave sets standing permanently for a number of programs, so

that they do not have to be struck every time the program is over and reassembled for the next broadcast in the series. All this has resulted in television studios being built to resemble motion picture studios, and in many cases old motion picture studios have been taken over and successfully adapted for television use.

The television studio differs from the motion picture studio, however, in the presence of the control room, the mark of a broadcast medium, and the nerve center for both radio and television programs. Here picture and sound are blended, operations are directed by intercommunication system for film or slide inserts from the telescene room (where projection equipment of all varieties is located), and the program is edited as it goes on the air.

PROJECTS FOR SELF-IMPROVEMENT

1. What television channels have been allocated for your community? How many are in use or applied for? Does FM operate in your community?
2. Make arrangements to visit studios and watch productions. If station tours are possible, plan one and find out all you can about variety of equipment and its uses.
3. Make arrangements through station managers to visit transmitters; talk to engineers about signal transmission and maintenance of facilities.

Appendices

I

Unions and Guilds Operating in Television and Radio

THE FOLLOWING are the chief unions having jurisdiction over various operations in radio and live television. Contracts between unions and stations are negotiated locally, and jurisdiction in television is not determined in all instances.

AFTRA, the American Federation of Television and Radio Artists, has jurisdiction over almost all talent, excepting instrumentalists, in radio and television. It is the survivor of various talent unions, such as Actor's Equity, Screen Actor's Guild, and the American Federation of Radio Artists, which were competing to represent performers. To appear on live television or radio professionally, a performer must be a member of AFTRA. Reciprocal agreements exist between AFTRA and the 4 A's (Actor's Equity Association, American Guild of Variety Artists, Chorus Equity Association, and Screen Actor's Guild), under which a member of any one of these guilds pays only half the initiation fee when he joins any of the others.

Radio-TV Director's Guild covers all areas of directing in radio and television, and in television it includes producers, directors, associate directors, and floor managers.

Writers Guild of America, East, Inc. and Writers Guild of America, West, Inc. have jurisdiction over radio, screen, and television writers.

IBEW, the International Brotherhood of Electrical Workers, is one of two major unions with jurisdiction over technical operations in radio and television—transmitter operators, studio operators, remotes, and technical maintenance work. It has

jurisdiction over technicians in two networks, CBS and Mutual. In a few stations, IBEW may bargain for announcers as well as for engineers.

NABET, the National Association of Broadcast Employees and Technicians, is affiliated with the CIO, and is similar to IBEW, but with broader jurisdiction. It operates at NBC and ABC and a number of independent stations, and though contracts with stations vary, at the networks IBEW covers engineers, traffic department, sound effects, design and development engineers, film editors, news writers, and publicity.

IATSE, the International Alliance of Theatrical and Stage Employees and Motion Picture Operators, has its largest membership in the motion picture industry, but is the bargaining agent in the CBS television network for costumers, makeup artists, graphic artists (painters, not set designers, who are called Art Directors), stage hands, and film editors and cutters.

AFM, the American Federation of Musicians, covers all instrumentalists on all stations and networks.

PG, the Publicists Guild, covers all personnel working in publicity through the regular mediums of press, magazine, radio, and television, as well as sales promotion personnel, except in networks covered by NABET.

OEIU, the Office Employees International Union, AFL, is the bargaining agent for white collar groups in many stations. At CBS, it has jurisdiction over script secretaries, mimeographers, receptionists, bookkeepers, and accountants; most of these come under NABET where it has jurisdiction.

In addition to their contracts with these unions, stations and networks have individual contracts with free-lance talent (actors, writers, directors).

Filmed television programs are regarded as motion pictures and are produced by independent companies. The various motion picture unions have jurisdiction; in Los Angeles, approximately twenty local unions affiliated with IATSE cover crafts alone—cameramen, stagehands, grips (electricians), projectionists, film technicians (engaged in developing the film), painters, property men, sound technicians, costumers, makeup, and so on. Talent is under jurisdiction of the Screen Actor's Guild, Screen Extras Guild, Screen Directors Guild, Writers Guild, West, and the American Federation of Musicians.

II

*Excerpts from the NARTB Code**

PREAMBLE

Television is seen and heard in every type of American home. These homes include children and adults of all ages, embrace all races and all varieties of religious faith, and reach those of every educational background. It is the responsibility of television to bear constantly in mind that the audience is primarily a home audience, and consequently that television's relationship to the viewers is that between guest and host.

The revenues from advertising support the free, competitive American system of telecasting, and make available to the eyes and ears of the American people the finest programs of information, education, culture and entertainment. By law the television broadcaster is responsible for the programming of his station. He, however, is obligated to bring his positive responsibility for excellence and good taste in programming to bear upon all who have a hand in the production of programs, including networks, sponsors, producers of film and live programs, advertising agencies, and talent agencies.

The American businesses which utilize television for conveying their advertising messages to the home by pictures with sound, seen free-of-charge on the home screen, are reminded that their responsibilities are not limited to the sale of goods and the creation of a

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favorable attitude toward the sponsor by the presentation of entertainment. They include, as well, responsibility for utilizing television to bring the best programs, regardless of kind, into American homes.

Television and all who participate in it are jointly accountable to the American public for respect for the special needs of children. for community responsibility, for the advancement of education and culture, for the acceptability of the program materials chosen, for the decency and decorum in production, and for propriety in advertising. This responsibility cannot be discharged by any given group of programs, but can be discharged only through the highest standards of respect for the American home, applied to every moment of every program presented by television.

In order that television programming may best serve the public interest, viewers should be encouraged to make their criticism and positive suggestions known to the television broadcasters. Parents in particular should be urged to see to it that out of the richness of television fare, the best programs are brought to the attention of the children.

ADVANCEMENT OF EDUCATION AND CULTURE

1. Commercial television provides a valuable means of augmenting the educational and cultural influences of schools, institutions of higher learning, the home, the church, museums, foundations, and other institutions devoted to education and culture.

2. It is the responsibility of a television broadcaster to call upon such institutions for counsel and cooperation and to work with them on the best methods of presenting educational and cultural materials by television. It is further the responsibility of stations, networks, advertising agencies and sponsors consciously to seek opportunities for introducing into telecasts factual materials which will aid in the enlightenment of the American public.

3. Education via television may be taken to mean that process by which the individual is brought toward informed adjustment to his society. Television is also responsible for the presentation of overtly instructional and cultural programs, scheduled so as to reach the viewers who are naturally drawn to such programs and produced so as to attract the largest possible audience.

4. In furthering this realization, the television broadcaster:

(*a*) Should be thoroughly conversant with the educational and cultural needs and desires of the community served.

(*b*) Should affirmatively seek out responsible and accountable educational and cultural institutions of the community with a view toward providing opportunities for the instruction and enlightenment of the viewers.

(*c*) Should provide for reasonable experimentation in the development of programs specifically directed to the advancement of the community's culture and education.

ACCEPTABILITY OF PROGRAM MATERIAL

Program materials should enlarge the horizons of the viewer, provide him with wholesome entertainment, afford helpful stimulation, and remind him of the responsibilities which the citizen has towards his society. Furthermore:

(*a*) Profanity, obscenity, smut and vulgarity are forbidden, even when likely to be understood only by part of the audience. From time to time, words which have been acceptable acquire undesirable meanings, and telecasters should be alert to eliminate such words.

The Television Code Review Board shall maintain and issue to subscribers from time to time a continuing list of specific words and phrases, which should not be used in keeping with this section. This list, however, shall not be considered as all-inclusive.

(*b*) Attacks on religion and religious faiths are not allowed.

Reverence is to mark any mention of the name of God, His attributes and powers.

When religious rites are included in other than religious programs, the rites are accurately presented, and the ministers, priests, and rabbis portrayed in their callings are vested with the dignity of their office and under no circumstances are to be held up to ridicule.

(*c*) Contests may not constitute a lottery.

Any telecasting designed to "buy" the television audience by requiring it to listen and/or view in hope of reward, rather than for the quality of the program, should be avoided.

(*d*) Respect is maintained for the sanctity of marriage and the value of the home. Divorce is not treated casually nor justified as a solution for marital problems.

(*e*) Illicit sex relations are not treated as commendable.

(*f*) Sex crimes and abnormalities are generally unacceptable as program material.

(*g*) Drunkenness and narcotic addiction are never presented as desirable or prevalent.

(*h*) The administration of illegal drugs may not be displayed.

(*i*) The use of liquor in program content shall be de-emphasized. The consumption of liquor in American life, when not required by the plot or for proper characterization shall not be shown.

(*j*) The use of gambling devices or scenes necessary to the development of plot or as appropriate background is acceptable only when presented with discretion and in moderation, and in a manner which would not excite interest in, or foster, betting nor be instructional in nature. Telecasts of actual sport programs at which on-the-scene betting is permitted by law should be presented in a manner in keeping with federal, state and local laws and should concentrate on the subject as a public sporting event.

(*k*) In reference to physical or mental afflictions and deformities, special precautions must be taken to avoid ridiculing sufferers from similar ailments and offending them or members of their families.

(*l*) Exhibitions of fortune-telling, astrology, phrenology, palm-reading, and numerology are acceptable only when required by the theme of a program, and then the presentation should be developed in the manner designed not to foster superstition or excite interest or belief in these subjects.

(*m*) Television drama shall not simulate news or special events in such a way as to mislead or alarm.

(*n*) Legal, medical and other professional advice, diagnosis and treatment will be permitted only in conformity with law and recognized ethical and professional standards.

(*o*) The presentation of cruelty, greed and selfishness as worthy motivations is to be avoided.

(*p*) Unfair exploitation of others for personal gain shall not be presented as praiseworthy.

(*q*) Criminality shall be presented as undesirable and unsympathetic.

(*r*) The presentation of techniques of crime in such detail as to invite imitation shall be avoided.

(*s*) The use of horror for its own sake will be eliminated; the use of visual or aural effects which would shock or alarm the viewer, and the detailed presentation of brutality or physical agony by sight or by sound are not permissible.

(*t*) Law enforcement shall be upheld, and the officers of the law are to be portrayed with respect and dignity.

(*u*) The presentation of murder or revenge shall not be presented as justifiable.

(*v*) Suicide as an acceptable solution for human problems is prohibited.

(*w*) The exposition of sex crimes will be avoided.

(*x*) The appearances or dramatization of persons featured in actual crime news will be permitted only in such light as to aid law enforcement or to report the news event.

The code also has special sections dealing with the responsibility of the television broadcaster toward children, the community, news and special events, controversial public issues, political telecasts, religious programs, and advertising.

Stations and networks subscribing to the Television Code of the NARTB are authorized to use the NARTB Television Seal of Approval, "a copyrighted and registered seal to be provided in the form of a certificate, a slide and/or a film, signifying that the recipient thereof is a subscriber in good standing."

The Code is administered by the Television Code Review Board of five members, "all of whom shall be from the Television membership of the NARTB." This board of five members is authorized and directed

"(1) To maintain a continuing review of all television programs . . . (2) to receive, screen, and clear complaints concerning television programming; (3) to define and interpret words and phrases in the Television Code; (4) to develop and maintain appropriate liaison with governmental agencies and with responsible and accountable organizations and institutions; (5) to inform expeditiously and properly a subscriber to the Television Code of complaints or commendations, as well as to advise all subscribers concerning the attitude and desires program-wise of accountable organizations and institutions, and of the American public in general; (6) to review and monitor, if necessary, any series of programs . . . presented by a subscriber; (7) to reach conclusions and to make recommendations or prefer charges to the Television Board of Directors concerning violations and breaches of the Television Code by a subscriber."

The Television Code Review Board meets at least four times each year, and a special meeting may be called by the Board chairman on five days' notice. All complaints about programming practices of member stations are brought by the Review

Board before the Television Board of Directors of the NARTB. After the requisite hearings in each case brought before it, the Board of Directors may vote to withhold the NARTB Seal of Approval from the station which has violated the Code.

III

Scripts

Announcer's Audition Copy

STRAIGHT

You can make any room lighter, brighter, and larger with WUNCOAT wall paint. WUNCOAT go-together colors push up the ceiling—push walls out—bring maximum light into the room—make spaciousness a pleasant part of your decorating success. For example, soft Radiant Cream WUNCOAT reflects eighty-nine per cent of available light. Tropic Green reflects seventy-seven per cent, Coral Glo seventy-six per cent, Peach Blossom and Iris Blue reflect seventy-four per cent each. Yes, there's brightness and spaciousness in WUNCOAT colors. Tomorrow—see *twelve* WUNCOAT wall colors—learn how easily you can use WUNCOAT oil-base wall paint—at your neighborhood paint dealer!

NARRATION (HUMOROUS)

And now a few words for fun—from a woman who hears us out in North Hollywood. She sends us a definition of the word *tact.* "TACT" she says, "is what prevents a gray-haired man with a much wrinkled face from reminding a very youthful looking woman with the complexion of a rose that they used

to be in the same grade at school." And here's another from a listener right here in Los Angeles. She says: "Tact is that quality that enables a person to make all guests *right at home* when you *wish* they *were*."

INSTITUTIONAL

Here's today's Good Hint for Good Health from the Institutional Life Insurance Company: "If your heart is not up to par, be extra careful when you catch a cold." A weakened heart may be seriously burdened when the patient has to fight an additional ailment . . . such as bronchitis or pneumonia, which sometimes follows the common cold. That's why, if your heart is ailing, it is important to see your doctor promptly when you catch a severe cold. His advice may prevent serious complications which might over-tax your heart.

INTIMATE

Wherever there's a fireplace burning brightly, there's invariably a group of people around, building castles in the flames—daydreaming or just comfortably toasting themselves. It's so irresistible, about the only thing to call them away is to call "Dinner's Ready!"

And nothing could taste better at that dinner than a crisp green salad liberally drenched and tossed with Western Sour Cream. Scientifically soured to a perfect mellow, tart flavor—and thick (like stiffly whipped cream), Western Sour Cream complements greens perfectly. For better flavor, and greater food value, use Western Sour Cream—to make your salads, sandwiches, and meat dishes good enough to "talk about."

Episode from "Home Surgery" by John Meston, from the radio series Gunsmoke*

MATT: They told us a man we'd been looking for, a murderer, was in a cowcamp on the North Fork of the Canadian River, about a hundred miles south of Dodge. So Chester and I rode down to take a look. We found a fella there with the right name but the wrong face, so we started back. The first night we camped in a dry, buffalo-rutted depression, and the next morning I woke shortly after daybreak to find Chester already cooking breakfast.

SOUND: MATT'S FOOTSTEPS TO FIRE WHERE MEAT IS SIZZLING

CHESTER: Morning, Mr. Dillon. Meat'll be done soon.

MATT: (STRETCHES) Coffee made? That's what I need.

CHESTER: It's boiling, sir. I didn't make much, though. Thought I'd better save our water.

MATT: You know, Chester, I'll bet right now the Doc's back there in St. Louis holed up in some fancy hotel and still asleep.

CHESTER: That's quite a thought, sir--him right in the middle of St. Louis and us way out here on the prairie.

MATT: I'll bet he's even got sheets on his bed, too.

CHESTER: I wouldn't be surprised, Mr. Dillon. Doc said this was one vacation he was going to splurge on. He's riding the Santa Fe both ways. Well, meat's done. I cleaned off this rock to cut it on.

MATT: Oh, good, good.

SOUND: CHESTER SLAPS MEAT ON ROCK--BUSINESS OF CUTTING AND EATING UNDER

MATT: You got it warm, anyway, Chester.

CHESTER: Well, now, meat shouldn't be overcooked, Mr. Dillon. Takes the taste out of it.

* Courtesy CBS-Radio, John Meston, and Norman S. Macdonnell, director. Not to be used for broadcast.

MATT: Then we ought to be able to taste everything about this steer. Even his disappointment.

CHESTER: How's that, Mr. Dillon?

MATT: Never mind. How come you woke up so early this morning?

CHESTER: Oh, I always do, sir. Seems as soon as it gets daylight my feet start to sweat. Then I just get up.

MATT: That's as good a reason as any, I guess. (PAUSE) Well, looks like we've got company, Chester...

CHESTER: What? Where?

MATT: Right out there. Heading straight for us.

CHESTER: Oh...yes. Some cowboy, probably.

MATT: I don't know. He doesn't ride quite like a cowboy.

CHESTER: (PAUSE) Why, it's just a kid, Mr. Dillon.

MATT: Yeah, it sure is.

SOUND: HORSE FADES ON UNDER

CHESTER: He sure needs a haircut. (PAUSE) Say, Mr. Dillon, it's a girl!

MATT: Now what could she be doing out here?

CHESTER: Carrying a rifle, too.

SOUND: HORSE COMES ON AND STOPS

MATT: Get down, Miss -- have some coffee.

TARA: Who are you, Mister?

MATT: Why, this is Chester Proudfoot. And I'm Matt Dillon.

CHESTER: How do you do, Miss --

TARA: You rustlers or what?

MATT: (LAUGH) Not exactly. I'm the U.S. Marshal out of Dodge, M'am.

TARA: U.S. Marshal...oh, that's good.

MATT: It is--why?

TARA: I need help, Mr. Marshal. My daddy's awful sick.

MATT: Sick? Where is your daddy?

TARA: We got a homestead about a mile over that rise back there.

MATT: Oh. What's he sick with?

TARA: It's his leg, Mr. Marshal. A horse threw him and his saddle both in the corral, and then it stepped on his foot. And now his whole leg's all funny. He's got a fever, too.

CHESTER: Mr. Dillon, that sounds like...

MATT: Yeah, I know, Chester. Tell me, miss, when the horse stepped on him...did it cut his foot...break the skin anywhere?

TARA: Just a scratch--tore his boot off, though. Please, Mr. Marshal, please come see him. I'm scared, the way his leg is and everything.

MATT: Sure, sure we'll come. Your mother with him now?

TARA: I don't have a mother, Mr. Marshal.

MATT: Oh. Well, then what're you doing out here if your daddy's sick?

TARA: We ran out of meat about three days ago, and I don't have anything to feed him.

MATT: All right. Chester, I'll ride back with -- uh, what's your name anyway?

TARA: Tara -- Tara Hantree. I'll be sixteen next January.

MATT: Well, that's fine. We'll go back to the Hantree place, Chester. You scout around for some meat.

CHESTER: All right, sir.

MATT: And if you don't find any antelope, shoot the first calf you see -- anybody's calf.

CHESTER: I'll do it, Mr. Dillon.

MUSIC: BRIDGE

SOUND: MATT'S AND TARA'S FOOTSTEPS APPROACH HOUSE - OPEN DOOR - FOOTSTEPS ON FLOOR

TARA: He's in the sleeping room, Mr. Marshal.

SOUND: FOOTSTEPS CROSS ROOM - OPEN DOOR - ENTER

TARA: Daddy...daddy, I've found a man and he's going to help us. And, daddy, he's a marshal...a U.S. Marshal.

MATT: Matt Dillon, Mr. Hantree. How're you feeling?

HANTREE: Dillon. I've heard of you. You're from Dodge, ain't you?

MATT: That's right.

HANTREE: Well, Marshal, I ain't feeling so good. My foot don't hurt no more, but it and my leg's all sorta...well, it ain't pretty.

MATT: I don't know much about these things, Hantree, but maybe I'd better take a look at it anyway, huh.

HANTREE: Sure...sure, Marshal. (THROWS COVERS BACK) There she is...

MATT: (LOOKS) All right. You can cover it up.

HANTREE: (COVERS BACK) I was in the War, Marshal. I know what gangrene is. Guess you do, too, huh?

MATT: Yeah. Well, first thing --a friend of mine is out getting you some meat. Then we'll load you in your wagon and...

TARA: Ben took the wagon.

MATT: What...

TARA: Ben Walling...he took the wagon when daddy got hurt. Said he'd find a doctor and bring him back.

MATT: Who's Ben Walling?

TARA: He's been sort of working here, Mr. Marshal.

HANTREE: I shoulda run him off long ago, that's what.

MATT: Well, where is he? What'd he take the wagon for? And where's he going to find a doctor around here, anyway?

HANTREE: Closest doctor's in Dodge, I know of.

MATT: Yes, and he's in St. Louis and he won't be back for a couple of weeks.

HANTREE: I couldn't get to him anyway.

MATT: Tell me...when did this happen?

TARA: About six days ago, Mr. Marshal. Ben left the day after.

MATT: Well, do you think he's coming back? Did he steal the wagon or what?

HANTREE: He comes back here, and me not able to get around...I don't know what I'll do...ought to take a bullwhip to him, a bullwhip...

MATT: Now take it easy, Mr. Hantree. He won't cause any trouble, so don't you get all worked up. Tara, we'll let him get some rest. (SOUND: FOOTSTEPS) We'll have some food for you soon, Hantree.

HANTREE: I ain't very hungry.

SOUND: THEY GO OUT - CLOSE DOOR

MATT: Tara, what's he so riled up about this Ben Walling for? What's between them?

TARA: Oh, it's nothing, Mr. Marshal. Daddy's sick and...that's all.

MATT: Look, Tara -- you asked me to help you, didn't you?

TARA: Yes...but...

MATT: You trust me, don't you?

TARA: (BEAT) All right, Mr. Marshal. Daddy hates Ben 'cause Ben...well, Ben likes me.

MATT: Oh. I see.

TARA: He even wanted to marry me. Said he would.

MATT: And how do you feel about Ben, Tara? Do you like him?

TARA: No. Of course it's time I had a man and all that, but... I'm afraid of Ben, Mr. Marshal. It's like there's something wrong with him--he's always sneaking around when you don't expect him. Makes me uneasy like.

MATT: Well, we won't worry about Ben now. You stay here in case your daddy wants anything. I'll go outside and wait for Chester.

TARA: Mr. Marshal...

MATT: Huh?

TARA: I'm awful glad you're here.

MATT: We'll see it through, Tara--don't you worry.

TARA: I won't--now.

MUSIC: BRIDGE -- IN AND UNDER

MATT: I went outside and walked over to the small corral that stood nearby. There I rolled a smoke and looked out across the flat distances of the prairie and wondered how anyone could survive in all that emptiness. Hantree -- lying on his bed back there in the house -- he wouldn't survive. The prairie'd got to him all right, and its vast loneliness had put him out of reach of any help. And Tara -- what could she do out here in this endless land of grass?

MUSIC: UP AND OUT

Excerpt from "My Friend Irma" *

OPEN ON CLYDE'S OFFICE. IRMA IS SEATED AT THE TYPEWRITER, TYPING AND LISTENING WITH INTENSE INTEREST TO A SMALL PORTABLE RADIO WHICH IS ON THE DESK. THE RADIO HAS A HANDLE ON TOP, TO WHICH IS ATTACHED A LONG STRAP. AS IRMA TYPES WE HEAR THE VOICE OF A RADIO ANNOUNCER. LIGHT FILTER.

(#3 - CU RADIO - to pull back)
#2 - MS - OFFICE DOOR)
#1 - MCU - IRMA)
(fade in on #3)

Cue announcer
V 3 -
(pull back)

ANNOUNCER: Now! Attention, please! Listen carefully! If you have saved the tops from five boxes of Vitamin-enriched VITA-PEP PIPPSIES you must be at the studio early, to pick up your tickets for big show "Pay The Penalty" -- - radio's outstanding quiz show. (INTIMATE) Now - have you got that?

(Standby Sound Effects)

IRMA: (TO RADIO) I could hear you better, if some dumbbell wasn't typing.

T#1
(3 O.S. IRMA)

IRMA REACHES FOR THE RADIO AND HANGS IT AROUND HER NECK BY THE STRAP, AND CONTINUES HER TYPING.

ANNCR: Would you like to win two thousand dollars?

IRMA SHAKES HEAD VIGOROUSLY

IRMA: You can say that again.

ANNCR: (EMPHATICALLY) Would you like to win two thousand dollars?

* Created and produced by Cy Howard. Not to be used for broadcast.

SOUND

SOUND: PHONE RINGS

IRMA GETS UP AS SHE UNFASTENS THE RADIO FROM HER NECK. SHE WALKS TOWARD THE FILE.

IRMA: (TO RADIO)

T# 2 (follows IRMA)

Excuse me, I've got to answer the phone.

IRMA PUTS THE RADIO IN DRAWER OF FILE, CLOSING THE DRAWER AND CUTTING OFF THE SPEECH OF ANNOUNCER

ANNCR:

Pippsies pay dividends in health too. They build up red corpuscles... with thiamin, niacin, calcium, and....

IRMA CLOSES THE DRAWER AND RUSHES TO THE PHONE

T# 1 (2 - MLS - BACK DOOR)

IRMA:

Long distance from Baltimore? Yes, operator, this is Mr. Clyde's office.... (UP)...Hello....hello. No, this is Mr. Clyde's secretary....He's out, but he'll be back soon.....yes....(PAUSE) yes.....(PAUSE)....yes.

IRMA HANGS UP THE PHONE BUT CONTINUES TO TALK TO THE PHONE. CLYDE ENTERS THE OFFICE AND QUIZZICALLY OBSERVES THIS STRANGE PROCEDURE.

T# 2

IRMA: (TO PHONE)

Yes...I'll tell him....yes, you can depend on me. (FLATTERED) Oh, thank you very much. You have a nice voice too.

CLYDE:

T#1 — Miss Peterson, if you'll pardon my ignorance, what are you doing?

(2-Med. 2 shot)

IRMA:

I'm talking to a man on the phone.

CLYDE:

Well, if you're talking on the phone, why in heaven's name is the receiver hung up?

IRMA:

T#3 Well, it's a long distance call, and I'm saving the man money.....The men wanted to talk to you.

CLYDE:

T#1 — And you hung up on him? Miss Peterson, who was he?

IRMA HOLDS UP HER HANDS ABOUT A FOOT APART, AS THOUGH MEASURING.

IRMA: (BRIGHTLY)

T#3 I can't remember but I think he was calling from Baltimore, because that's where the call was from.

CLYDE: (FUMING)

(S.B. announcer) T#1 Baltimore? Miss Peterson, that's Mr. Preston, my new client. By any act of Providence, were you smart enough to get the message right?

IRMA:

T#3 Well, he said thank you for leasing an apartment for him here. He's flying from Baltimore now and he'll meet you tonight in the apartment.

T#2 - (Follow Clyde) (#3 CU RADIO ON FLOOR)

CLYDE:

Thank goodness you got that much straight. Mr. Preston is coming to New York to have his corporate affairs rearranged. I'll have to go and check up on the apartment. I have his memos here in the file.

IRMA:

I'm ready, Mr. Clyde.

CLYDE WALKS TO FILE.

IRMA:

What's in the memos, Mr. Clyde?

AT THIS POINT CLYDE OPENS THE DRAWER OF THE FILE. THE RADIO IS STILL TURNED ON AND THE VOICE OF THE ANNOUNCER FOLLOWS CLYDE'S NEXT LINE IN PERFECT SYNCHRONIZATION.

CLYDE:(NOT TOO FAST)

As I recall, they contain --

ANNCR:

Q—

--thiamin, niacin, and calcium.

CLYDE,REACTS, LOOKING AT IRMA IN A PUZZLED AND STARTLED MANNER. CLYDE PICKS UP THE RADIO AS IF HE WERE HOLDING A DEAD CAT BY THE TAIL. THE ANNOUNCER CONTINUES WITH HIS COMMERCIAL.

ANNCR: (SYRUPY)

Now for the quiz show....just tear off a box top....

CLYDE IS MOMENTARILY TAKEN IN BY THIS SALES PITCH, AND FEELS THE HOLLOWS OF HIS CHEEKS AS HE TAKES STOCK OF HIMSELF. THEN HE DOES A "TAKE."

CLYDE THROWS THE RADIO TO THE FLOOR IT BREAKS INTO PIECES. AS IT HITS THE FLOOR, THE ANNOUNCER SAYS "OUCH."

T#3

ANNCR:

You might be lucky and..

OUCH!

(S. B. music)

IRMA:

T#2 Golly, Mr. Clyde, you've broken
(1-CU JANE) your own radio.
3-CU IRMA)

CLYDE BENDS DOWN AND PICKS
UP A SOLITARY RADIO TUBE AND
HOLDS IT IN HIS HAND TRIUMPHANTLY

CLYDE:

I've destroyed it, and I'm glad!

THE RADIO TUBE CONTINUES TO
TALK:

ANNCR:

...and now for our theme song,

MUSIC ——— "You Always Hurt the One You Love"

CLYDE THROWS THE TUBE TO
THE FLOOR. HE GRABS HIS HAT
AND HEADS FOR THE DOOR.
HE SLAMS THE DOOR BEHIND HIM.
IRMA PUTS A NEW PIECE OF PAPER
INTO TYPEWRITER.

IRMA: (THOUGHTFULLY)

Let's see now. "How old was
Columbus when he discovered Ohio?"

(Cue JANE)
JANE ENTERS.

JANE:

Hi, Irma, Honey. (INDICATES OFF)
What's the matter with Mr. Clyde?
Laughing Boy passed me in the hall
and didn't even speak.

IRMA:

I don't think he feels good, Jane. I
bet his red "corpsuckles" don't get
enough calcimine.

JANE:

Look Irma, honey, eating Vita-Pep
Pippsies finally paid off for us.

JANE HOLDS UP TWO TICKETS

IRMA: (ENTHUSED)

Oh, Jane, that's wonderful. You got the tickets for the quiz show.

JANE: (EXCITED)

Irma, tonight the winning team gets two thousand dollars. Just think, if we can get to be contestants, we might be able to refurnish our whole apartment.

IRMA:

But, Jane, how can we make sure we'll be contestants?

JANE:

The usher at the radio station knows a friend of mine and he tipped me off. The quizmaster always picks people from the second row. Irma, we've got to get there early and sit down in front.

IRMA:

But, Jane, I can't sit down in front.

JANE:

Why can't you?

IRMA:

I don't bend that way.

JANE:

Honey, just do the best you can. All that matters is that we attract the attention of the quizmaster.

IRMA:

Golly, just think how hard we've studied for this quiz, Jane. And tonight we may be a team..(POINTEDLY) Your brain and my brain, working as one.

T#1 —

JANE:

Yeah, I know. But listen, cookie, getting ready for this quiz show has been quite a strain. I've been spending all my lunch hours in the public library.

IRMA:

T#3 (1 O.S. JANE)

Golly, Jane, the food is much better at the Automat.

JANE:

T#1 — (2 ready for JANE'S Rise)

I've read a zillion library books. I know how many people live in Timbuktu, how many rocks there are in the Grand Canyon, what Nero played on his fiddle while Rome burned, and why the Chicago River flows backwards, ----

(S.B. MUSIC) Ready Black)

IRMA:

Why does it, Jane?

JANE:

It wants to get away from the stockyards. Gosh Irma, I've got to be getting back to the office. I've had an hour for lunch already.

JANE LOOKS AT HER WATCH

T#2 (Release #1 for RADIO Scene)

We'll eat downtown tonight and rush right to the radio studio. I'll meet you at 5:30.

IRMA:

Okay, Jane. Meanwhile, I'll keep on typing up my answers.

IRMA STARTS BANGING AWAY AT THE TYPEWRITER.

But it sure would be easier if I knew what the questions were.

FADE OUT

— MUSIC —

Open on #1

Black

Cost Sheet for Television Drama Production

SHOW ESTIMATING FORM

Show_____ No._____

Telecast and/or Recording Date_____

	BUDGET	ESTIMATE
SCRIPT		
SUPERVISION AND DIRECTION		
CAST		
MUSIC		
SOCIAL SECURITY		
ROYALTY		
TOTAL		
SET CONSTRUCTION AND RENTAL		
SET DESIGN		
GRAPHIC ART		
SET DRESSING AND PROPS		
FLOOR MANAGER		
STAGEHANDS		
SPECIAL EFFECTS		
LIGHTING		
MAKEUP		
WARDROBE		
SOUND EFFECTS		
EXTRA AUDIO		
EXTRA VIDEO		
TVR.		
FILM AND LAB		
EDITING		
TRANSPORTATION		
MIMEO		
TOTAL		
REHEARSAL HALL		
INTER. NO FAX		
NO FAX		
FAX		
THEATRE		
TECHNICAL CONFERENCE		
ORCH. REHEARSAL		
FILM FAX		
GROSS		
AGENCY FEE		
NET		
GRAND TOTAL		

COMPILED_____

SCRIPT REC'D_____

RAINBOW REC'D_____

PROD. MEETING_____

OVER UNDER	SERIES TO DATE	SERIES OV-UN

IV

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