planning advisory service

AMERICAN SOCIETY OF PLANNING OFFICIALS

1313 EAST 60th STREET — CHICAGO 37, ILLINOIS

formation Report No. 150 September 1961

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AUDIO-VISUAL AIDS AND EQUIPMENT

> The great part of the planner's story is in the philosophy of long range planning. How do the people get that story? It is a complicated thing, difficult to explain. It isn't news as much as it is advertising or just plain communication.[1]

Certainly planning frequently involves matters which a journalist would call news. But news to the journalist involves something both new and concrete. Ideas must be given form. The planner cannot deliver this type of news day after day, year after year. The journalist is reluctant, even opposed, to writing frequent feature stories on the lengthy research necessary prior to the compilation of a comprehensive plan, and yet the planner must keep his name, his goals, his ideas and his activities before the public during this period. Like the established movie star, he needs publicity between films to maintain his box office draw.

> . . . before a planner can sell his plans he has got to sell himself. At the risk of trotting out a paradox, I hasten to add that he sells himself by selling his plans; or perhaps more accurately by selling his planning--bit by bit, stage by stage.[2]

What are the tools available to the planner in achieving this goal? None are new, and yet a list of them is longer than one would expect. The press media can be tapped in three ways. News stories can be expected when plans are finalized or some concrete action is taken. Feature stories on the problems of planning, its basic goals and philosophy, or on the planners themselves, may come as an occasional publicity bonus. A lively meeting with the planning board may well result in publicity.

Radio and television can provide excellent outlets, particularly on panel-type public affairs programs. Brochures on specific projects, including the comprehensive plan itself, and a periodic newsletter published by the planning agency and dealing with its progress, problems and goals, can reach a selective audience.

Prepared by Winslow Kelley and Thomas J. Serb

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The primary tool, however, and the most effective as far as the individual citizen is concerned, remains the public appearance. A personal account at close range will never be replaced by any other method of conveying ideas, particularly when the audience must be convinced as well as informed.

Fortunately, many communities seem to consider the planning agency to be a speakers' bureau. On Monday evening the planner may be called upon to speak before a session of the city council, and Tuesday at noon he is the key speaker at a civic club luncheon. And so it goes all week long. In these talks he is involved in communicating with groups in two broad types of situations.

In the first case, he talks before a group only once to discuss an urgent community problem, such as a zoning change, an urban renewal project, or the selection of a site for an expressway interchange. The planning director must often make this type of presentation to his own planning commission, which, although perhaps much more informal than the general audience, can be quite large, particularly in the newer metropolitan agencies.

In the second situation, the planner is presenting general information on city planning to groups such as the parent-teacher's organization, service and civic associations, or high school students. In other words, the immediate current needs and long-range goals of city planning are communicated to audiences ranging in size from five to five hundred. Let's look at a typical situation before a typical audience.

Our planner glances up from his notes or the text of his talk to a community group to see his audience slipping into a comfortable sleep. Although the speaker hears no snoring, he wonders about the stout man in the second row with his eyes closed and breathing rather heavily. The woman who only last week had enthusiastically telephoned to request the speaker's presence at the meeting, is rereading the advertisements at the back of the printed program. The man beside her, having already studied every crack in the plaster, is now contemplating the gravy stain on his necktie. Meanwhile, the planner is attempting to explain the "bold, imaginative and exciting" comprehensive plan.

Certainly something as important as a plan for a city deserves better attention. Intensive interest and enthusiasm must be achieved. Complicated problems concerning government and community development cannot be resolved until a myriad of committees, boards and civic groups has been informed about the problems, has talked about them, and has been given an opportunity to contribute to their solution. If groups that must give their wholehearted support do not understand the community's problems and the proposals aimed at their solutions, interest and enthusiasm vacillate. Before too long, negative responses outweigh the positive.

The problem, then, is to do everything possible to insure that the planner, as a speaker, is effective. He can look, for example, to business and industry, the military, or the educational system where the management, though taking different forms, is vitally aware of the need to get groups of people interested and anxious to take their parts in a program -- whether it be a sales campaign, nuclear warfare problem, or simple classroom lesson in history. These diverse fields are turning more and more to audio-visual aids in their multitudinous communication jobs.

> Of the various media /including all forms of the written and spoken word/ it is my belief that visual aids /to the spoken word/ will prove to be of the most use to the planner, because they demand that he simplify the ideas he is presenting. This helps the planner. The planner is required to clean up his thinking when he simplifies his story into pictures and that is difficult because as you know when you start to simplify, things get complicated.[3]

DEFINITIONS

Before going into the types of audio-visual aids available to the planner, we must both define and limit our use of the basic term itself.

Audio-visual is, of course, a combination of two words: audio referring to that which we can hear, and visual referring to that which we can see. The basic frame of reference here limits our application of the term to a speaker and his audience, although they are not necessarily in the physical presence of one another, as in the case of a motion picture or television presentation.

The term "aids," used in reference to the speaker, rules out his physical presence (visual) and unrecorded voice (audio). These are the essential elements which make him a speaker, and therefore cannot aid him (his voice cannot aid his voice).

Further, the uncontrollable physical surroundings are not audio-visual aids in themselves, although they can have a definite audio or visual effect and should therefore be considered, if possible, when preparing a presentation. These include such things as distracting street noises (a hindrance) or a soundproofed room (an aid); or a beautiful mural behind the speaker (a distraction), purple and orange walls (a hindrance), or a paneled, modern meeting room with indirect lighting (an aid).

Handouts, especially maps, charts or tables, make good visual aids. The audience, particularly a large one, can get a finer appreciation of details which cannot be enlarged in a suitable manner. However, the audience is left in a position to continue studying such material, both before and after the speaker refers to it, and thus he cannot "control" its use.

We are left, then, with audio-visual aids which the speaker can control, and which are suitable for use with audiences of widely varying sizes.

Audio-Visual Aids

The term "audio-visual aids" is commonly misapplied. The aids themselves must be something either audible or visual, or both. The common types of audible aids are the spoken word, recognizable sound effects, and music. The most frequently used visual aids are people, pictures, cartoons, graphics, maps, the printed word, and three-dimensional models. When we talk about a motion picture projector or a blackboard, we are talking about the means of presenting the aids, and not the aids themselves.

Audio-visual materials can be divided into those which present the aids in their original form, and those which reproduce the original form.

In the following paragraphs, we will briefly define the most common means of display which make sights and sounds useable in the speaker-audience situation outlined above. They will be discussed in further detail in later chapters.

Visual Aid Display Equipment

Animation. Movement may be given to different types of visual aids. The materials necessary to do so fall in this section, but since they are usually improvised they cannot be specifically defined. Examples are given later in this report.

Blackboard. Black, green or other colored slate or composition board, or a specially painted surface, which will "take" erasable white or colored chalk.

Bulletin Board. Flat board of cork, composition or other wood or material to which visual aids may be attached with pins, tacks or staples.

Easel or A-frame. Any type of frame which will hold flat-surfaced visual aids of any given size; characterized by the artist's easel, which is similar in structure to the letter "A," with a third leg used as a brace.

Feltboard. Any stiff, flat board covered with wool, felt or flannel. A variety of visual aids, usually cutouts of objects or strips of cardboard lettered with key words, with sandpaper or other abrasive backing, will adhere to the board. The same effect can be achieved by backing the visual aids with two-sided cellophane or masking tape, and covering the board with a piece of acetate; or by using strips of Velcro.

Flash Cards. A series of stiff cards, usually small enough to be held in the hands, each of which is imprinted with one or more key words.

Flip Charts. A series of visual aids on flexible paper, fastened together at the top and mounted on a frame in such a manner that they can be flipped or folded back. The frame usually resembles a football goal post, with the charts fastened to the crosspiece.

Model or Mock-up. A three-dimensional dummy, usually made to a small scale, which may or may not have working parts. The finished model is a visual aid. We are concerned here with construction materials.

Pegboard. Composition or plywood board, or other similar material, which has holes drilled through it at regular intervals, usually 3/4". Different types of metal clips, fitting the holes, will hold visual aids such as small posters, books and models.

Pointer. Any long, thin strip of material, such as a stick, ruler, etc., which may be used to indicate parts of the visual aid being emphasized. One new model contains a battery-powered flash light, with a beam shaped like a small arrow. The pointer can be used to indicate a portion of a slide, projected in a darkened room, without having the pointer's shadow fall on the screen.

Original Audio Materials

As was mentioned earlier, audible aids generally include the spoken word, recognizable sound effects, and music. The materials thus include people, anything which will produce a desired sound effect, and musical instruments. Sound reproduction equipment, if sound is to be used, becomes a necessity in many cases.

It might be inconvenient, for example, to recreate the din of downtown traffic, in its original form, within a small meeting room. A little library research on theatrical sound effects may be helpful.

Visual Projection Equipment

All visual projection equipment, with the exception of mirrors, the earliest "magic lanterns" and viewing screens, requires electricity to power its lighting elements. There are five basic types of modern equipment.

Filmstrip Projector. Equipment which will advance and project a 35 mm. filmstrip, one frame at a time.

Motion Picture Projector. Equipment which will project a series of pictures on a strip of film in such rapid succession as to give the appearance of movement to objects.

Opaque Projector. Equipment which will project the image of any opaque material, either flat or three-dimensional, placed beneath its lens.

Overhead Projector. Equipment which will project the image contained on transparent slides up to 10" x 10". Each transparency must be positioned on the projector by hand. The word "overhead" is taken from the design of the equipment, which actually projects the image to a mirror held above the transparency, which in turn reflects it over the head of the speaker to the viewing surface.

Slide Projector. Equipment which will project the image contained on a small transparent slide, usually 35 mm. (2" x 2" when framed). Many of these projectors are equipped with magazines to hold a large number of slides, and operation can be either manual or automatic.

All visual reproduction equipment requires a viewing surface of some type. Screens are discussed in a later chapter, in reference to the capabilities and limitations of the different pieces of equipment.

Audio Reproduction Equipment

The types of sound reproduction equipment are fewer in number than those for visual projection. They are:

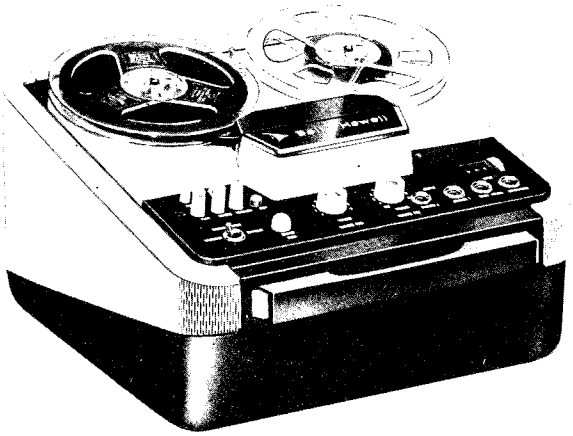
Phonograph. Equipment which will reproduce sounds recorded or transcribed in grooves in the surface of a hard, round, flat record.

Sound Motion Picture Projector. A film projector which also has equipment for reproducing sounds recorded along the edge of the film itself.

Tape Recorder. Equipment which will reproduce sounds recorded on a rolled tape. Most tape recorders can be used to place the sound on the tape, as well as reproduce it.

In addition to being used as a separate piece of audio equipment, phonograph records are also used in conjunction with filmstrips. The result is known as a sound slidefilm, sound having been added to a group of slides put together to make a film. A sound signal, either audible or inaudible, placed at intervals on the record, advances the filmstrip. The synchronized equipment is known as a Sound Slidefilm Projector.

Figure 1



Modern tape recorder.

. . . and Other Useful Terms

In these few pages, we have already presumed an understanding of some terms with which the average planner may not be familiar. These, and other terms which are used later in the report, are defined briefly below.

Film. (Used in the text as processed movie film.) A long, narrow strip of cellulose nitrate, acetate or similar material containing a succession of small transparent photographs. Common sizes are 8 and 16 millimeter, referring to the width of the strip.

Filmstrip. Same as Film, but usually in 35 mm. A filmstrip is usually compiled from a number of individual pictures taken with a 35 mm. still camera.

Graphics. Diagrammatic representation of numbers, taking several common forms such as the bar chart, line graph, or pie diagram; or a charting, such as an organization chart, flow chart, etc. Pictures are sometimes used, particularly in bar and flow charts.

Montage. A composite picture made by combining different elements. These may include photographs, lettering, magazine covers, etc.

Opaque. Possessing a thickness or density which prevents light from passing through the object. Total opacity is not necessary for the use of the opaque projector.

Slidefilm. See Filmstrip. The term slidefilm is used only when sound is added.

Tape. (Used in the text in reference to tape recordings.) A narrow strip of acetate or other material, somewhat similar to film, on which sound may be electronically recorded or transcribed.

Transparent. Opposite of Opaque. That through which light can pass.

Transparency. A picture viewed by having light shine through it.

SOME PRINCIPLES FOR USE OF A-V AIDS

Thus far we have suggested that audio-visual aids are a valuable tool for the planner, and we have briefly defined audio-visual aids and the more important pieces of audio-visual equipment. Now, before going into the choice of a means for displaying the aids for a particular talk, we must discuss the selection of the aids themselves.

The illustration, both audio and visual, of a talk is similar to the illustration of a printed report. The process generally follows these steps:

1. There must be a goal or purpose for preparing the report (speech).
2. An outline of the finished product is prepared, to be used at this point as a guide to the research.
3. Research is completed, as necessary. If the research includes the compilation of data or map studies, these may be bases for illustrations.
4. The final report (speech) is written.
5. Illustrations are added to
    a. Support statements.
    b. Graphically depict key points.
    c. Enhance the appearance of the report (speech).
    d. Add a touch of humor.
    e. Add emotional impact.
    f. Condense and simplify statistical material.

In one sense an audio-visual presentation, with the audio presented "live" and the visual projected on a screen, is similar to an old-time vaudeville act with two men on the stage, the straight man and the so-called comedian. On some lines the straight man will move to stage center and project loudly, and on the next lines the comedian will stride over the footlights and give the punch line. With sharp, crisp dialogue and byplay, they hold their audience's interest. Of course the planner does not do a song and dance act when using audio-visual tools. But a certain amount of showmanship and enthusiasm, as well as pacing and timing, can make a presentation more effective. A visual aid carries the impact one time; then the planner steps forth to point out a key fact related to the illustration.

The steps outlined above, and the mention of pacing and timing, connote a principle of illustration which is inherent to the definition of a planner -- pre-planning. Pre-planning begins with the statement of a goal or goals of a specific project, and takes form through the preparation of an outline. Adequate pre-planning implies continuity of thought, and a certain amount of simplicity of content, obtained via a step-by-step analysis of several propositions leading the reader to a conclusion. If the report has continuity, then illustrations, assuming they are used to illustrate the consecutive key points of the report, will have continuity. Pre-planning ends with a final review of the report prior to publication or, in our case, with rehearsal of a presentation prior to its formal delivery.

Simplicity cannot be overstressed. The goals must be simplified. The outline must be simplified. Research must be simplified. The written report must be simplified. Illustrations must be simplified. And, through rehearsal, the delivery of the presentation must be simplified. Very few audiences have a

technical knowledge of planning, and more particularly of the planning vocabulary. In order to "sell" a plan, every word, every phrase, every illustration must be geared to the capacity of the audience to understand the planner's exact meaning. The following principles are intended to help the planner analyze his presentation.

Spacing

Illustrations should be spaced throughout the speech. This may not always be possible, but should be a goal. If it is necessary to bunch the illustrations at one point, try to make it as near to the end as possible. No matter how good the speaker, he cannot "follow" visual material and maintain the same degree of interest.

Illustrations should always pertain to the immediate material being discussed. The confusion and frustration caused by inappropriate timing is frequently displayed in written material where the text refers to a table or other material on another page. Obviously, the further the illustration is from the text reference, the greater the degree of apathy or even hostility on the part of the reader. Just as the ideal publication shows an illustration on the same page as and alongside the text reference, the speaker should show his visual aids only at the time he refers to them. Turning the page of a book removes the possibility of a previous illustration becoming a distraction from the subsequent text. The same principle applies to visual or audio aids for a speech. Repeat the use of an aid as needed, but do not leave it in view at all times.

Now we come to what appears on the surface to be a contradiction. Despite the principle of spacing, the use of a large number of illustrations in the opening moments of a talk is frequently effective. The rapid use of visual aids, particularly photographs, will create an immediate interest on the part of the audience. In reality, the principle of spacing is still being used: the rapid succession of photos amounts to a montage, and can be considered as one illustration used to define the scope of the talk. Subsequent illustrations will remain in view for a much longer period of time, on an individual basis, and therefore the total viewing time of the opening montage can be compared with that of any of the other visual aids when determining spacing.

Technical Material and Maps

> Technical subject matter should be avoided or translated into simple or understandable language or demonstration. Since most . . . /presentations/ will be for local consumption, one should not hesitate to refer specifically to local situations, locations, or problems which are generally recognized.[4]

People are bored by statistics. The planner knows this, and yet figures frequently make up the bulk of his talk. The first step, then, is to eliminate all unnecessary statistics, considering primarily the listerners and what they want and need to know.

The use of graphics cannot be stressed too heavily. Numbers, in addition to boring even those who understand them, are completely incomprehensible to a

surprisingly large percentage of the average audience. People need something they can see, something they can compare. Graphics provide this visual comparison. The addition of a third dimension, identification, can make the graphics completely successful. The problem, which is not always easy to solve, is to relate the statistics dealing with the planner's subject to statistics dealing with the audience.

For example, a line chart may depict the capital improvements expenditures during recent and future years, as scheduled by the planning department and approved by the city council. A little research would permit the planner to add lines depicting the increasing average personal income, average personal taxes (including real estate, personal property, excise, and so forth) and the amount or percentage of those taxes which will go toward the construction and maintenance of the capital improvements. Now the members of audience can identify themselves with the statistics: they know how much of their money is going into the planner's work. The statistics shown in the example above will be particularly effective if the percentage of personal income going to capital improvements does not increase, and perhaps even decreases after completion of some major phases of the program.

We hear a lot about the manipulation of statistics. We certainly do not recomment that anything be hidden from the audience, for the responsibility of the planner is to the audience - the people for whom he is planning. But it might be advantageous to put extra effort into making certain statistics, which strongly support the planner's goals, more dynamic through the effective use of graphics. Increased costs cannot be disguised, but graphic comparison with the rival town across the river, which is spending more to get less, can sway public favor without resorting to any dishonesty. The greater the emotional appeal of the comparison, whether it stresses financial burden, civic pride or anything else, the greater will be the favorable response of the audience.

Maps and other complex illustrations must also be closely scrutinized.

> While maps to the planner are essential tools, it must be realized that the average person, even with concentration has great difficulty in following very simple diagrams. A program that relies heavily on visual reference to maps or plans will not be too successful. This point should not be passed off lightly. An incomprehensible program may easily do more harm than good to the status of planning in the community. No . . . show or publicity is better than a poor show or bad publicity.[5]

How is the planner expected to talk on his land use proposals without a map? He isn't. But it is extremely important for him to simplify his presentation as much as possible. Some of the proposed land use maps we have seen, using almost every variety of Ben-Day pattern or shading to depict infinitesimal areas, may be accurate, but they have about as much appeal to an audience as a medical textbook does to a planner. There are a few simple ways to make a land use map easier to follow:

1. If the use of color is not practical, eliminate or combine as many of the use zones as possible, especially in an over-all map of the area. For example, the average member of a public audience will understand that an area of the map covered with vertical lines represents residential areas, without going into

details of apartment and single-family areas.

2. If at all possible, use color. Here again, simplify the map as much as possible. Solid areas of color can be distinguished from the back row of the audience, but various patterns using the same color become meaningless.

3. To illustrate the fact that higher density housing has been planned near the industrial areas, use another map depicting just those factors and areas. The enlargement of a small area of the over-all map will permit some different shading patterns or colors, since those used in other areas of the city will not appear on the enlargement to confuse the issue.

4. Use overlays to depict each type of land use, both as it currently exists and as it will be after the proposed changes. The use of the overlays will permit comparison of industry with housing, housing with parks or commercial areas, or the comparison of the proposed schools with those existing, or any other comparison which will illustrate the logic and reasonableness to be found in the new map, without the encumbrance of trying to distinguish between the areas under discussion and those which have no bearing on the problem.

These solutions to the presentation of a land use map can be applied to any other complex plan or illustration, since the key to understanding is simplification.

One last, but very important, factor in the simplification of maps is uniformity. Map colors have been standardized. Use the recommended shades. Above all, do not vary colors or symbols depicting the same thing from map to map. Nothing could be more confusing.

Build Anticipation — Then Deliver

Picture yourself in your favorite chair, relaxing after a fine meal prepared by your beautiful and loving wife. You settle down to watch the television show of the year, one you have been waiting for with keen anticipation. Brigitte Cheesecake, European lovely, has finally consented to come to this country and is making her television debut in a comedy featuring the Three Stooges.

The show gets under way, and there she is. You are surprised that she proves to be a very good comedienne. She is holding her own in laugh-packed situation after situation, and the show is building toward its climax. Miss Cheesecake had hired the Stooges as butlers, and has been trying to teach them the etiquette necessary for the job. Now comes their first test. Miss Cheesecake is hostess at an elegant formal dinner. All has been going well, as the Stooges enter with the dessert -- trays of gooey cakes and pies. As they pass the hostess, all three trip and begin to fall toward her, and . . . pfft . . . a tube blows.

This rather elaborate example has its parallel all too frequently in the presentations of planners. Through the use of some excellent visual aids, they build anticipation and keen interest . . . and then fail to deliver the climax they have led the audience to expect. Take the example of an imaginative presentation on what has been publicized as an exciting proposal for urban renewal. Some fine photography on the part of the planner has produced good illustrations of the current condition of the area, showing rotting porches, falling chimneys,

broken sidewalks. But the artist hasn't finished the sketches of the proposed changes, so the planner attempts to describe them with words alone. The resulting enthusiasm is deafening in its silence.

Now let's go back to the TV set. Let's imagine that the tube didn't blow, and see what happened.

The Stooges trip and fall toward Miss Cheesecake. But with an effort, they manage to miss her, and the pies and cakes fall harmlessly to the floor. She immediately fires them, and they meekly leave the room.

Here we have a climax, but one which, in this case literally, falls flat on its face. Taking again our example of an urban renewal area, the same effect is often achieved by the planner who tries to cut corners by retouching the original slum photos, or presenting just a few rough sketches, rather than expending his greatest effort on the attractive display of the results which will be achieved by the adoption of his planning proposals.

The point, a basic principle of visual presentations, is obvious. The climax must at least equal, and preferably exceed, the visual impact of the introduction and explanation.

Negative to Positive

The urban renewal example used above illustrates another principle of visual presentation.

> In order to "sell" you have to explain--you have to make people see things. In your case you /the planner/ must first make them see the existing negatives. You have to make them understand that blight in a city's body is cancerous--that it contaminates and destroys. . . . The first job of a selling program for city planning is to bring these bad conditions into the conscious mind--to expose them in the white glare of publicity and to interpret their infectious contamination of good areas, so it will become harder and harder for any intelligent citizen to pull down a mental curtain to block them out.
>
> The second job of a selling program for the city planner is to portray the positive side--to whet the appetite--to make the people drool in anticipation of the benefits that a sound and imaginative plan will produce.[6]

There is a great degree of overlap between the principles of anticipation-climax and negative-positive, the negative approach simply being a valuable tool in the building of anticipation, and the positive being the logical climax.

The Use of Humor

Millions of words have been written about humor, and yet it is hard to define. It takes many forms, and varies with the situation. In a planner's presentation, humor has a definite place, but it is not so much to make people laugh as it is to maintain interest. Doing this requires that the humor, in what-

ever form, be related in some way to the subject matter. To be effective, it must amuse, relieve the tension on serious consideration, and illustrate the point the planner is trying to make in a manner much more effective than cold facts or figures could achieve.

A satirical presentation, used perhaps to poke fun at the opposition's objections to a plan by showing their absurdity, will often backfire. Extreme care must be taken to avoid the impression of ridicule, particularly if the presentation will be given before a variety of groups.

A humorous simile, such as the one used above with Miss Cheesecake and the Three Stooges, makes use of a completely fictitious situation illustrating a common principle. Here we have, it is hoped, offended no one, amused a majority, and made the principle of anticipation-climax much more clearly understood, and thus better retained, than would the urban renewal example if left to carry the message by itself. Shown here in words, it gave a visual image; a camera or artist could put it in pictures to illustrate a presentation.

Animals, babies and cartoon characters can be used to add an effective touch of humor. Cartoons in particular are often used to add continuity. The recurrence of a comical little man, perhaps added to the foreground of each illustration and doing nothing more than studying the same material the audience sees, can lighten the serious atmosphere of a meeting. The audience will look to see what the man is doing in each illustration before looking at the actual content. This split second of relaxation, repeated throughout the presentation, relieves boredom and monotony.

Animals and babies are particularly useful when used to illustrate action or attitude. A kangaroo might be used to show how people should "jump" on the bandwagon and get behind a project, or a fat, sleeping and obviously contented baby might illustrate previous public apathy about current renewal problems. Other examples are given later in this report.

The Speaker and Assistants

Although we have stated that the speaker is neither an audio nor a visual aid to himself, his audible and visual impact upon an audience is more important than the finest aids. Since the same things which apply to the speaker apply to any assistants he may have, particularly in a panel presentation, we should devote at least a few words to them.

Appearance obviously makes an impression. If the discussion is of a serious nature, a business suit is called for. Lar Daly, perennial candidate for president of the United States, frequently appears at public functions dressed as Uncle Sam. His patriotic intentions in so dressing have apparently not been obvious to his audiences, for few people have taken his candidacy seriously enough to contribute their votes. By the same token, a duck-tailed haircut and black leather jacket on some young planner would immediately preclude serious consideration of his proposals on the part of an audience.

Voice qualities are also important. The man with a high-pitched voice may overcome this drawback by displaying a likeable personality, competence and intense interest. But it is generally agreed that the man with a pleasing

voice has a head start on success in public speaking. A planner studies English before he attempts to write. He researches his subject before he draws conclusions. Let us assume then, for the sake of brevity, that he has also studied speech and knows of the tricks and tools necessary to overcome any vocal shortcomings.

J. Marshall Miller, speaking some ten years ago on the use of people on TV, made some remarks which may well be applied to a planner's presentation.

> The most important consideration in the production of a show . . . is the problem of participants. An outstanding personality might carry a show that would otherwise have little appeal. A one-person show demands someone who can attract and hold an audience aside from the subject matter presented. Most producers suggest that a two-person show be avoided. With only two people there is a tendency that one generally agrees with the other and a "yes-man" routine is developed, or the dullness of a simple dialogue is provoked, or perhaps even more often the conversation develops into an argument. Shows with three or four persons have proven to be the most successful. For the moderator-panel type program there should be not over four in the panel. If more people are involved, no one is given sufficient time . . . .
>
> . . . The planning director may or may not be the person to present or discuss most effectively the planning program. A technically efficient person is often too technical for the best . . . show. Quality of voice, pleasing appearance, ease of speaking and ad libbing are more essential than is detailed knowledge of the subject presented.[7]

A Matter of Excellence

> I see the need for very expert . . . handling of visual material, whether it be graphics, or map and plan drawing, or whether it be typography, or layout, or design, or symbols, or whether it be the preparation of a film, or what have you. These are very expert jobs. . . . I think we are going to cook our goose very, very neatly if we do not operate at the highest possible level. . . . It would be disastrous if we addressed to an American audience, through whatever medium, bad things visually speaking. This audience, I will remind you, is really spoiled, visually. It is constantly picking up typography of the highest order. It is all . . . reading Life, Look, Pic, Squeak, etc., which are photographically of the highest levels. It is not a substitute, in spite of the accident of accuracy, to present a bad photograph to an audience which is used to looking only at good ones. This is terribly important. The same goes, of course, for all the other aspects of this thing I am talking about. Typography must be good, because our audience is spoiled--very spoiled. They really have become very discriminating, . . . and their eyes are trained by certain rules of legibility and visibility which are being developed all the time.[8]

How does the planner go about achieving excellence in his visual presentations?

The easiest, and most expensive, course of action is to seek professional assistance. The public relations man, writer, artist, photographer, and a host of others, are only too willing to prepare these materials. And maybe it wouldn't be a bad idea to spend that money and get a job that will do what you want it to do. One public relations man puts it this way:

> Thousands of dollars are spent in the organization of planning programs and related studies. Nothing may be spared in bringing together qualified people, giving them good materials to work with, comfortable space, and adequate time in which to carry out a project. When the project is completed, every short cut conceivable is sought in an attempt to reduce the costs of its presentation and publication.
>
> My first reaction to such a production is that whoever did it did not have enough respect for his own work to dignify it with the care it deserves. How then can he expect anyone else to dignify and use it?[9]

Perhaps the planner, or a member of his staff, is a good photographer or artist, on an amateur basis. Experience alone will determine whether he can produce visual aids of respectable quality. For those who would like to try, a certain amount of study and practice are required, just as in anything else. As to the originality of an amateur attempt, it is of little consequence. Professionals borrow ideas from each other every day, and it certainly won't hurt a planner's presentation if he patterns it after one used in another city with which he is familiar. Toward this end, it is a good idea to set up a file of those illustrations which may catch your attention, so that at a later date you may determine why and how they did so and copy the effect.

Design of the Illustrations

It is difficult to put down in a few paragraphs those principles of design or layout which can be applied to any type of illustration, be it a photograph, map, cartoon or graphic of some type. The easiest method is to describe the basic principles of advertising layout, for the planner's illustration is really an advertisement for the accompanying text material. It must then be left to the planner, in taking his photograph or drawing his map, to study his subject and apply the principles which fit the given case.

The primary purpose of the design is to attract the attention of the viewer to some key point or fact. The layout determines the scope of the message through the position, size and relation of the elements. It presents the approach, be it informal or dignified, hard or soft, ugly or beautiful.

The elements of a design may be used singly or together, in whatever manner will best achieve the desired results. The basic elements are:

1. Copy. The written word is used to inform, appeal or convince. For an A-V presentation, the speaker normally supplies the copy, although a few key words or sentences may sometimes appear. Words, however, must be legible to be useful: limitations are automatically imposed by the size of the audience.

2. Headlines. A few words in large, bold type are used to attract attention

and identify the subject matter. They are also used to unify the other elements of the advertisement.

3. White space. Blank areas add beauty, contrast and emphasis. Prestige or quality products or events are usually advertised with larger amounts of white space. For example, compare the impact of a page in an automotive parts catalog with the dignity of a wedding invitation, or the complexity of a large-scale street map with the simplicity of a drawing of a single expressway intersection. The number of bold lines per square inch in each element of a design have as much to do with the "feeling" of white space as do the number of blank square inches between the elements.

4. Illustrations. Here is the meat of the matter for our purposes. Pictures or drawings, be they abstract or real, are used to tell a story. They provide an image of action to the accompanying text. They can be used to inform, explain the difficult, describe details, or simply to please the eye. Some examples would be a bar chart showing population increase (inform), a land use map (describe details), or a photograph of a new building (please the eye).

5. Type. Although used for the text or headline, type faces have a beauty and force of their own. Judicious selection can add to or injure the impact of the layout. For example, a tall, thin type might be used effectively to identify a tall, thin building, while squat, heavy type might be used to identify a slum photograph.

6. Trade names and trade-marks. In commercial advertising, the name and trade-mark are used as a signature. While the name of an agency can be used in the same manner across the bottom of an illustration, a trade-mark can take other forms for the planner. The use of the same type face throughout a presentation, or the same basic symmetry of layout, or the recurrence of some symbol, such as the little man mentioned earlier, can identify an illustration with its producer. This type of continuity can be carried through all of a planner's different presentations, as well as the agency's publications.

7. Color. Color compels attention, attracts the eye and suggests action. It can be used for contrast or emphasis, or simply to indicate the natural shade of some material. More is said about color in the next section.

8. Borders. A border may assist in indicating the nature of the material, as in the case of a heavy black line being associated with an obituary. The border may aid eye movement toward key elements of the advertisement, or by its absence create an altogether different effect.

In preparing a layout or design, remember that the purpose is to attract attention, and retain it as long as necessary for the viewer to receive the message. In putting the different elements together, care must be taken that they do not compete. They should provide for eye movement toward the central idea, and above all they should be simple and easy to grasp. The elements should be placed together in such a manner that they attain the unity, harmony, rhythm, symmetry and proportion which will achieve the desired result. Each element must be analyzed in regard to the others as to size, weight, structure, form, color, texture, and the direction in which it tends to lead the eye.

This brief discussion can be summarized simply by stating that the elements

must balance, lead the eye to the central theme or idea, and be attractive. Further discussion and analysis of the elements can be found in any good book on advertising, design or illustration techniques.

The Use of Color

The use of color was briefly mentioned as one of the elements of design. It is true that the size and weight of letters or figures give the illusion of varying color even when only one is used, as can be seen by glancing at the headline above this paragraph. But the planner shouldn't need to be sold on the use of color -- his problem is usually a matter of whether or not he can afford to add it.

A full discussion of the fine aspects of color is out of place here, but a few of the principles and suggestions will be helpful.

Colors are generally classified as cold (green-blue) or warm (red-yellow), the cold having a tendency to recede from and the warm seeming to move toward the viewer. Red-orange is the most eye-catching and attracting shade, but it is not always psychologically correct. Being "warm", it would not be used, for example, to illustrate a tray of ice cubes, just as a "cool" blue-green would not be a judicious choice in a furnace advertisement.

By the same token, a relatively large area of cold color is needed to have the same eye attraction as a small area of warm color. Therefore a cold color would not be a good choice for a key word (other elements would dominate) and a hot color would not be a good choice for a background (it would dominate).

Imbalance must be achieved between the colored and the black and white areas. One or another should dominate in the sense of area covered. For hot colors, the black and white should dominate; for warm colors, they should dominate. Correspondingly, the color should be massed or organized into potent areas, rather than spotted here and there across a large illustration.

The use of a second color can make the result so much more effective that it is usually a false economy to limit an illustration to one. When a budget does impose this limitation, consider the greens, blues, reds and browns. Colored paper can also make a one-color illustration much more attractive.

Many people are disappointed by color photography. It is generally known that films do not capture the exact shades seen by the eye. If experimentation is not possible, and the results must be perfect, consult a professional photographer for proper choices.

A CLOSER LOOK AT AUDIO-VISUAL EQUIPMENT

When it is decided to produce an A-V program, the first question will no doubt be "How much will it cost and how much time will it take?" Costs can be broken down into three columns: the cost of the original visual aid, such as a

photograph or drawing; the cost of preparing the visual aid for presentation, such as making a slide from the drawing; and the cost of the display or projection equipment. In some cases the first two factors can be combined -- it is just as easy to draw a map 4 x 5 feet for display as it is to draw it 8 x 10 inches and then go to the expense of a photographic enlargement.

The production costs depend upon how much work is done by the planning agency and how much is placed under contract to a local film producer, professional photographer or artist. Many motion picture producers now provide a wide variety of audio-visual services--from a 35 mm. slide presentation to a wide-screen motion picture production. As a planning agency's program develops and the staff gains experience, the director no doubt will be able to designate certain A-V productions to an internal staff team and other productions to an external professional producer. The more display and projection equipment a planner sees, the more audio-visual people he talks to, and the more audio-visual publications he reads, the better he will be able to decide what is the most practical and feasible A-V program for his particular situation.

A study of display and projection equipment must of course consider factors other than cost. There are advantages and disadvantages to the use of each item, and selection must be made in the light of what effect these factors will have on a planner's individual situation and abilities. The comments below follow the order in which the equipment was defined earlier in this report. More emphasis is given to the steps necessary to prepare audio and visual aids for use with reproduction equipment, because of its greater complexity, current popularity, and the serious consideration which accompanies higher costs.

Animation

We normally think of animation in terms of a Walt Disney motion picture cartoon. Certainly this is true, and indeed this is the highest order of animation. But the term really implies motion, and motion can be simplified down to the basic chart. For example, a bar chart can be made in a double thickness, with the second layer nothing more than a solid sheet of color, and the first layer, giving the form, wording and numbers of the chart, cut out in such a manner that the color will show through the holes to make the bars. Blank paper inserted between the layers can then be extracted to give the bars, as they slowly appear, the animation of illusionary growth. In a similar manner, cartoons can be made to "move" by pulling strings, or outline maps can be filled in gradually by flipping overlays. The only limitations to the possibilities are imagination and mechanical inventiveness. A professional designer or artist is equipped to do this type of work; charges could vary so greatly that it would not be practical to give estimates.

Blackboard

Still the standard piece of visual equipment in our school systems, the blackboard has many drawbacks which affect its use. The grating noise of a piece of chalk improperly rubbed against the board is enough to drive any audience away. Glare can mar the view of a large part of an audience. The necessity of frequent erasing distracts from the continuity of the presentation. And,

of course, the writing or drawing must be completely legible and large enough so that all may read and see. Unfortunately, the handwriting of many people indicates that it would not be wise for them to attempt to use a blackboard as their primary piece of visual equipment. On the other hand, a blackboard permits the speaker to change the size of his writing and illustrations to suit the size of his audience -- a factor which can be costly with any pre-prepared visual aids.

Bulletin Board

A bulletin board is essential when illustrations have been prepared on thin, flexible paper. It is usually helpful to have an assistant do the mounting, or the planner will have to turn his back to the audience and fumble with the material. A blackboard can be considered a bulletin board, with the aids mounted with tape rather than pins or tacks. It might be noted here that small visual aids can be enlarged by a photostatic process, at relatively small cost, for presentation on a bulletin board. The board itself will vary in cost with size and material.

Easel or A-frame

Frames can be made by the planner himself, should he happen to be handy with tools, or a building maintenance man or carpenter, or purchased commercially. They are used to hold and display material mounted on portable blackboards, bulletin boards, feltboard or pegboard, or the visual aids themselves if prepared on stiff drawing board. The planner should consider the drawbacks to using any of these pieces of equipment if transportation to presentation sites enters the picture. He might find himself in an awkward situation if, after having purchased a 4 x 6 foot bulletin board and easel, he finds that they do not fit in the trunk of his car and he must struggle with them on a bus.

Feltboard

Adhesive cutouts are particularly useful in the illustration of motion, such as the movement of automobiles along a proposed interchange. The street lines can be indicated with tape or string, and the cut-out cars can be moved along and placed in position at will. Use is perhaps more adaptable to the discussion of various proposals than the presentation of a finalized plan.

Flash Cards

Due to their small size and effective use in rapid sequences, flash cards are difficult to adapt to a planning situation. They are used primarily in language training, testing, or to emphasize key words or actions.

Flip Charts

The same consideration must be given to transporting bulky flip charts and supporting frames as was given to easels and the material they may be used to

display. Flip charts have a distinct advantage over separate illustrations in that the change from one to another is much faster and easier to accomplish. The illustrations, of course, must be on completely flexible paper. Here again, cost will depend upon whether the planner prepares his own illustrations and makes the frame, in which case he pays only for the materials, or has the job done commercially.

Model or Mock-up

The primary consideration in the use of models is the size of the audience. If a model is designed for table display, the number which can gather around the table at one time is the maximum audience size. In this case, the speaker would ideally stand on one side of the table, in order to point out various aspects to the audience, standing on the other three sides. Unfortunately, city planning is not conducive to the making of models which the speaker can hold in his hands, as is frequently done in the automotive and other industries. The product here is an area, and not some single object.

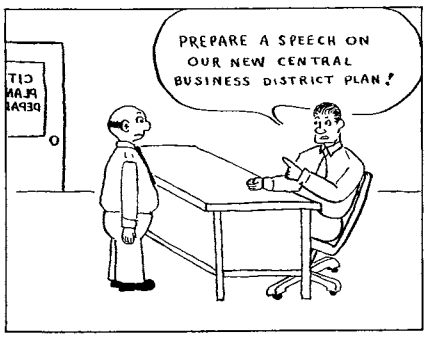
The use of table models would be most effective as a lobby display, which can be viewed by the audience after the planner's presentation. That presentation, by the way, might make use of photographs of the model. Cost will depend on size, detail, materials, and the producer of the model. It is usually too technical and time-consuming for the planner to build a model of, for example, an entire urban renewal area, complete with scaled buildings, landscaping and other features. A simpler and cheaper method, where principles rather than appearance are the objectives, might be achieved with a sand table (basically a child's sandbox elevated to table height), wherein the sand can be shifted to indicate grades and elevation. Miniature replicas of buildings, automobiles, trees and people can be purchased from a local hobby or model store, and used effectively to demonstrate the desired principles.

Pegboard

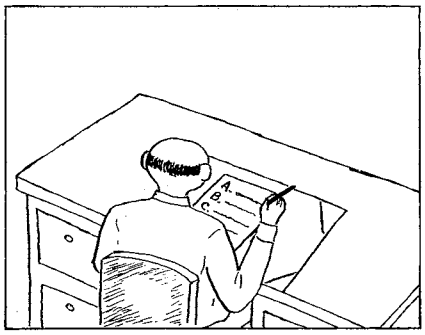
Ideally suited to a lobby display, particularly of publications or other materials, pegboard is difficult to adapt to a changing visual presentation. Considering the size of the audience, illustrations are rarely much smaller than the largest piece of pegboard a planner might want to carry to a meeting, and the display of only one item might suggest that a bulletin board or easel would be a better choice of equipment.

Pointer

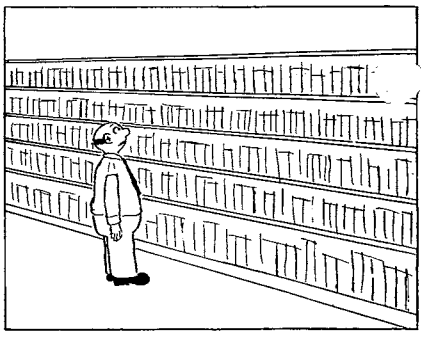
A pointing instrument is indispensable, especially when using maps, graphics and models, in pointing out particular parts of the visual aid. A pointer should be thick enough to be seen from the back of the room and thin enough so that it does not obliterate a part of the visual aid; it should be long enough so that, coupled with the length of the speaker's arm, it can be used to indicate something on one side of a visual aid while the speaker is standing on the other side. In addition, weight and the size of the handgrip must be considered so that the pointer will be comfortable to use. Considering the usually small price, the planner would be better off purchasing one at a school supply store, rather than trying to improvise with a ruler or stick.



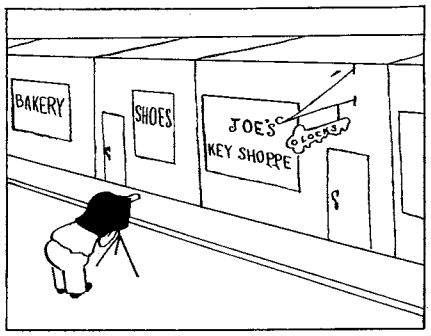
START WITH A GOAL



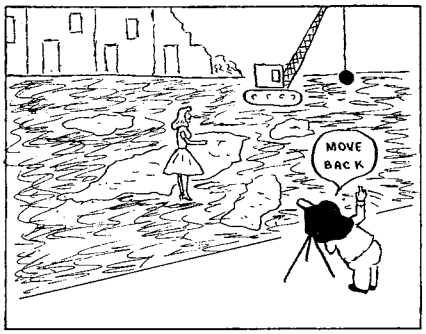
MAKE AN OUTLINE



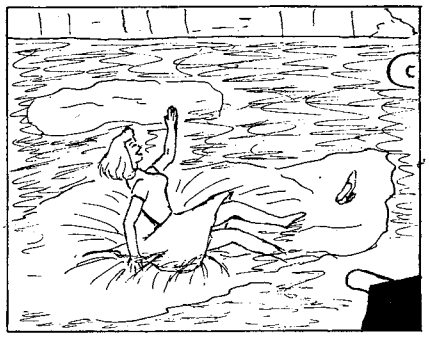
DO RESEARCH



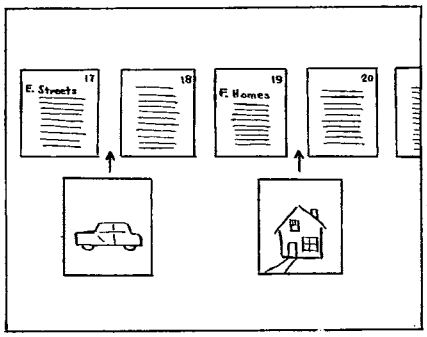
DEPICT KEY POINTS



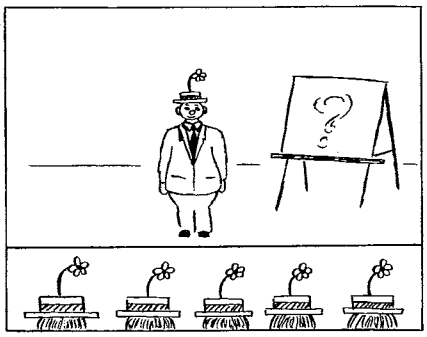
ENHANCE THE APPEARANCE



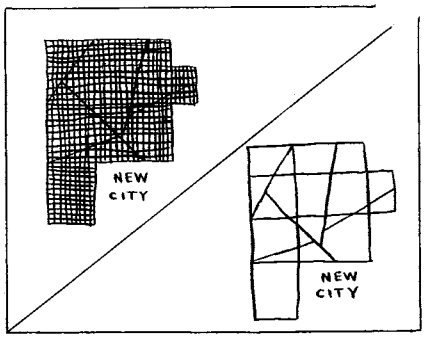
ADD HUMOR



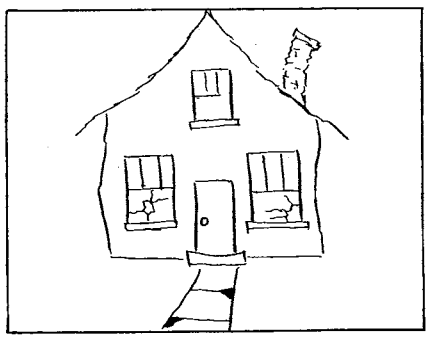
MAKE THEM PERTINENT



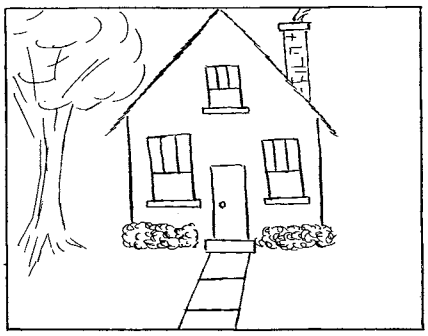
IDENTIFY WITH AUDIENCE

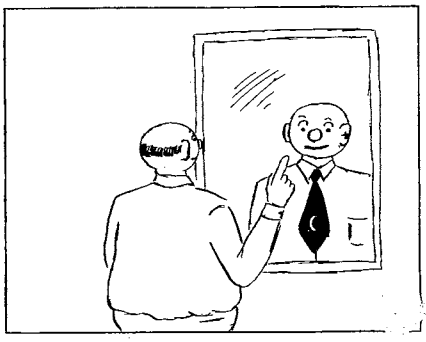


ELIMINATE TRIVIA

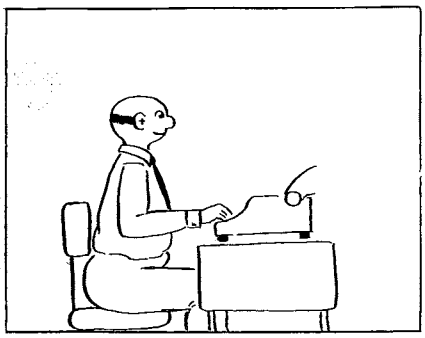


BUILD ANTICIPATION . . . . . .THEN DELIVER

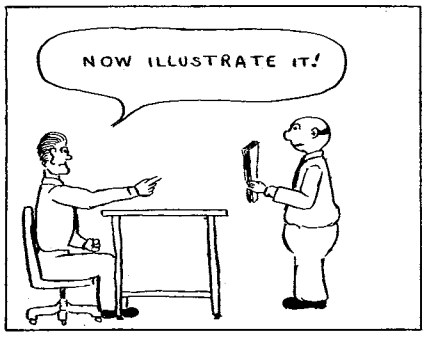




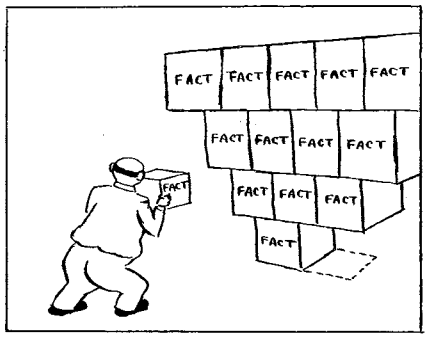
REHEARSE



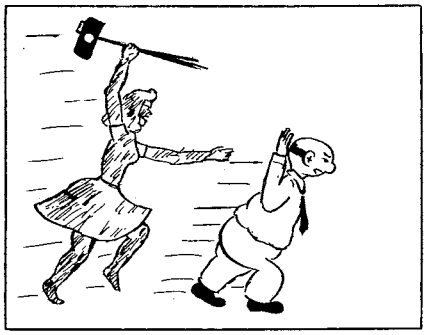
FINISH THE SPEECH



INSURE EFFECTIVENESS



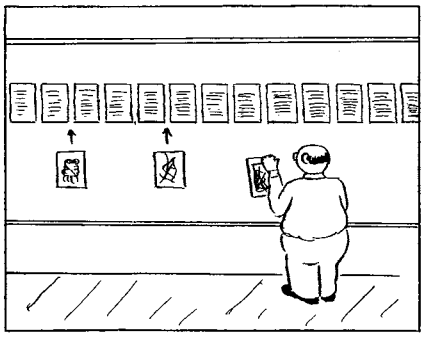
GIVE GRAPHIC SUPPORT



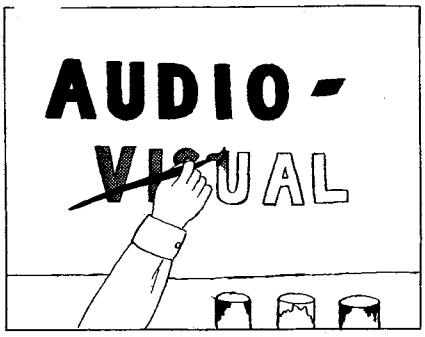
ADD EMOTIONAL IMPACT



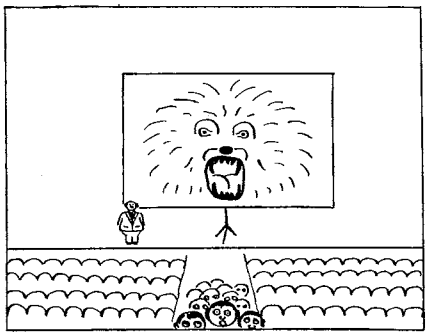
CONDENSE & SIMPLIFY



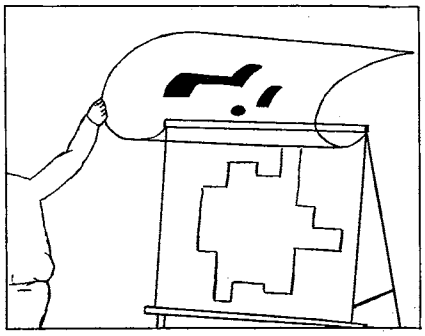
SPACE ILLUSTRATIONS



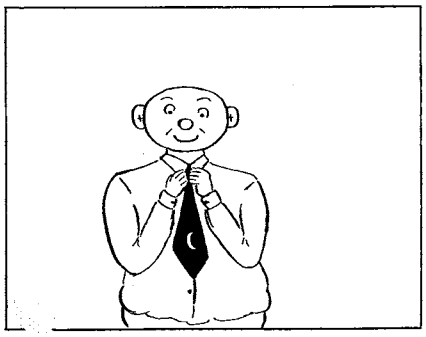
USE COLOR



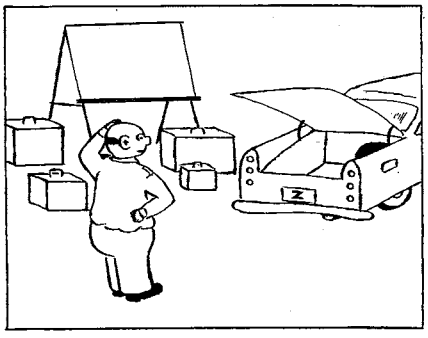
ENLARGE



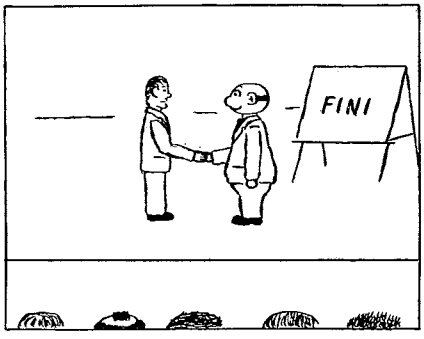
USE OVERLAYS



MAKE A GOOD APPEARANCE



PLAN EQUIPMENT



SUCCESS!

Original Audio Materials

Original sounds have the quality of seeming unreal when used with visual reproductions of the source. In addition, original sounds are frequently too loud or soft to suit a captive audience. Further, an original sound requires that a visible, and therefore distracting, source be present. These comments are generalizations, it is true, and they are not intended to cover human voices used separately, although they would apply, for example, to the original presentation of the sound of an unruly mob. Theatrical sound effects might be used in some cases, but remember that they are best used as background for the actual presentation, and as such care must be taken that the attention afforded them by the audience is proportionate to their use.

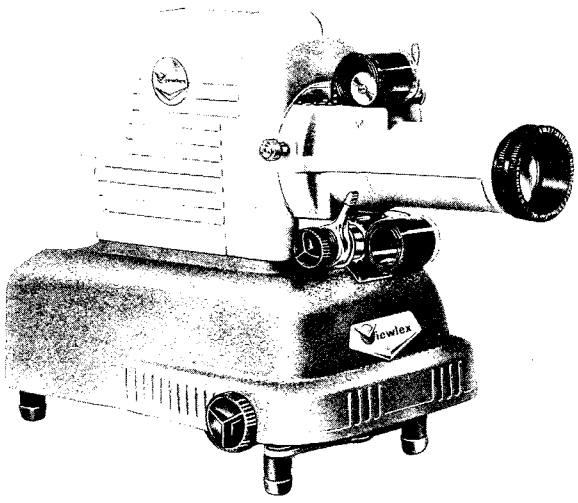
Filmstrip Projector

The filmstrip has all the advantages of 2 x 2 inch (35 mm.) slides, insofar as showing pictures to an audience of any size is concerned, plus two additional advantages of considerable importance: the pictures cannot possibly get out of order or upside down, and there is no theoretical limit to the number of scenes that can be shown. For instance, a filmstrip containing 400 pictures can be contained in a can less than two inches in diameter and one and one-half inches deep, and weighing only three ounces. An equal number of 2 x 2 slides would require four boxes, 6 x 10 x 2½ inches in size, each weighing nearly a pound; and perhaps half again as much if the slides are mounted in glass or plastic.

The filmstrip presentation has one shortcoming compared to the slide presentation: its pictures are in a permanent order -- none can be omitted, nor can new pictures be added.

The filmstrip has a cost advantage over 2 x 2 slides when the latter must be duplicated in any quantity. Duplicate prints of filmstrips cost much less per picture than duplicate slides. The transfer of the original material to 35 mm. film makes the first filmstrip fairly costly; however, each additional filmstrip is much less expensive.

Figure 2



Filmstrip projector. A remote control attachment is available for this particular model.

Professional motion picture producers and audio-visual producers who make filmstrips usually use 8 x 10 inch glossy photographs for black and white filmstrips. Pictures for color filmstrips, comprising about 90% of the current commercial production, are almost always shot on 4 x 5 inch color transparencies. Titles, labels, arrows or lettering which highlight a particular part of a picture are readily added to the 4 x 5 transparency or the 8 x 10 black and white glossy print, but only the glossy print can readily be retouched. The 4 x 5 color transparency must be right the first time, in detail and composition as well as in exposure and color values.

In many ways the preparation of a filmstrip is very similar to the preparation of a slide presentation. First comes the script (discussed later), then the photography and artwork, and finally the transfer of the original visuals onto the filmstrip.

When a filmstrip is made available to high school classes or community organizations, a reading script should accompany it. This can actually be identical to the script used originally for producing the filmstrip. It simply describes each picture, and becomes a cue to the program chairman or classroom teacher so that he can read the audio for each illustration as it appears on the screen.

A further discussion of the preparation of the visuals for a filmstrip will be found, combined with the preparation of sound, under Sound Slidefilm Projectors. Due to the number of similarities, the section on Slide Projectors should also be studied by planners interested in filmstrips.

As to cost, a good filmstrip projector can be obtained for $75-$125. Consult a local producer or audio-visual dealer for the costs involved in production of a filmstrip. If he has the equipment and experience, a dealer may be able to make a filmstrip from the planner's own slides or photos, but in any case the project should not be undertaken by an amateur.

Motion Picture Projector

A motion picture is one art form that requires the right combination of many creative skills. Writing, photography, directing, acting and editing are just some of the talents that are molded together into a single emotionally exciting and, at the same time, informative effort. If the results are good they can be very, very good. If they are bad, they can be very, very bad. But even with the speculative nature of the film's value, many people, especially businessmen, who are known not to be reckless with money, are willing to spend the necessary amount to produce 16 mm. motion pictures.

According to a recent report made by John Flory of Eastman Kodak Company to a meeting of the Society of Motion Picture and Television Engineers, business and industry spent $156 million in one year for films and other audio-visual aids. Of this sum, about $121 million went for film production, release prints and distribution, $12 million for 16 mm. sound motion picture projectors, and $23 million for other audio-visual items.

Even so, motion picture production is not a task for the amateur. Poor planning can be very expensive. Mistakes of omission or commission can raise havoc with any budget, small or large. A planning agency should assure itself of competent production personnel, be it an internal or external project.

The planning agency staff cannot avoid taking responsibility. Although guided by the advice of a professional producer, the ultimate responsiblity for making decisions is theirs. Here are some of the questions that will face the staff when they start thinking about having a motion picture produced:

1. What kind of motion picture is needed? Should it be a documentary or a story situation?

2. What primary audience is being aimed at? Established families, new homeowners, retail store owners, local manufacturers?

3. How much does the prospective audience already know about the work of the planning agency and the problems it is trying to solve? What can be taken for granted when preparing the script?

4. What should happen after people see the film? Should they think, discuss, inquire, approve, write a letter, or vote funds to undertake a project?

5. How long will the motion picture be useful? This is another means of evaluating the production dollar.

6. Is there a potential for distribution through local television or in the schools? If so, there are certain limitations both on subject matter and on length that must be considered.

7. How many of the steps toward a finished production should be handled within the planning agency? When talking with a film producer, the planner might arrange to have his agency prepare the script outline and let the producer prepare the shooting script, handle the photography, editing, interlock and all the other various production steps.

8. Who is to be in charge for the planning agency? If possible, it is best to give one man authority to control the details of the production and to handle liaison with the producer.

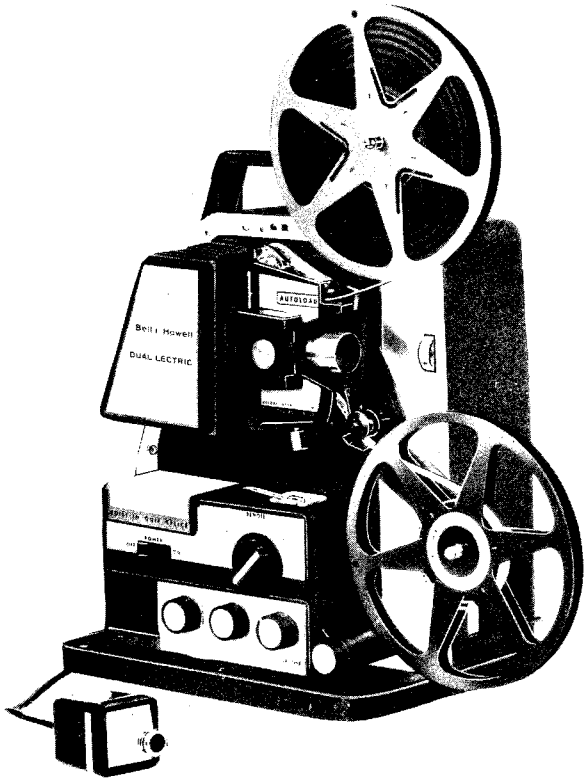
9. What printed materials will be needed? Will mailing pieces or posters promote attendance? Or should a printed piece be distributed after each showing to follow up on the interest created by the film itself?

10. What public relations activities should be related to the motion picture project? Once the planner has received a proposal from a film producer, he may want to present it to various civic and industrial associations. When he explains the story that will unfold in the motion picture and how much it will cost to tell the message to the community, various civic groups may be willing to undertake the production as a public service venture. If the Chamber of Commerce or a local industrial association can receive listing in the film credits, the association's members may be eager to show the film to their employees and promote it throughout the community. When the motion picture is completed, a premiere showing could be arranged -- one for a select group of civic leaders and another for the general public. If such a project is properly planned, favorable goodwill could be generated for the numerous programs of the planning agency.

It is extremely difficult to give the estimated cost for producing a 16 mm. motion picture because of many factors. For example, there is the question of color versus black and white; length of the film can make a difference of thousands of dollars; union crews are sometimes more expensive than non-union crews; the over-all efficiency and the amount of fixed overhead at one motion picture studio may vary considerably from that of another studio in the same city; and, when sound is added, one speaking voice doing a narration is cheaper than five voices in a story situation.

Once the planner has decided to produce a motion picture, he should talk to two or three producers, ask to see films they have made, and have them write proposals, spelling out what they will do and how much it will cost.

Figure 3



Motion picture projector. This model features automatic film threading and remote control.

The smaller planning agencies that cannot afford to produce a motion picture may still find it desirable to invest in a projector. Each year, new films are added to a growing list of motion pictures available from distributors, national organizations or foundations. Some can be purchased, and become a permanent part of an agency's public relations program. Others can be rented at nominal sums for special showing to a community group. (See ASPO's bibliography, Motion Picture Films on Planning and Housing.) As is the case with filmstrips and slide presentations, junior staff members can be sent to show the film and answer any questions the audience may have.

As to the possibility of the planner preparing his own film, we must repeat the consideration of the excellence of public taste. The man who took some good shots of his children playing in the yard is seldom qualified to produce a film with a story line or message, especially for the consumption of sophisticated city audiences. In small towns and rural areas, a folksy home movie, including local characters and perhaps some shots of the mayor and police chief, accompanied by a tape-recorded interview, could, on the other hand, have more popular appeal than a full-scale production.

Opaque Projector

It is a sad fact of economic life that the highly versatile opaque projector is being pushed into the background on the visual equipment scene in favor of the overhead projector. The problem is this: opaque projectors, like motion picture and slide projectors, require almost total darkness for proper viewing. Modern schools and industrial buildings -- and these are among the primary users of audio-visual aids -- are being designed to let in as much daylight as possible. The process of darkening a single modern classroom requires the expenditure of hundreds of dollars for blackout shades or other equipment. Therefore the overhead projector, which can be used in daylight, is rapidly pushing the opaque projector aside.

The only requirement in the preparation of visual material for the opaque projector is the limitation on size imposed by the lens and distance between it

and the visual aid. The usual maximum is 10 x 10 inches.

The opaque projector is simple to operate, but it is big and bulky. In addition to being hard to carry around, the projector, if placed in front of a seated audience, can obstruct the view for those near it. As to cost, it can be obtained for $250-$350.

Overhead Projector

The overhead projector is preferred by speakers for many reasons. It is easy to operate, projects a large, clear image, and, as was previously mentioned, there is no need to darken a room to use it. The projector also is designed so that the person using it faces the audience, making it possible to maintain easy eye contact at all times. If he wishes to point out something on the screen, the speaker merely takes a pencil and touches it to the transparency, which lies face up and easily readable on the projection surface. The image of the pencil appears like a pointer on the screen behind him.

A list of topics, figures or other tabulated information may be discussed a line at a time by placing a sheet of paper over the transparency, and drawing it down only enough to reveal each item as it comes under discussion. If the speaker wishes, he can write or draw with a grease pencil or pen on the transparency to add new information or elaborate on an illustration. The overhead projector is also the easiest and most effective piece of equipment to use for the presentation of overlays.

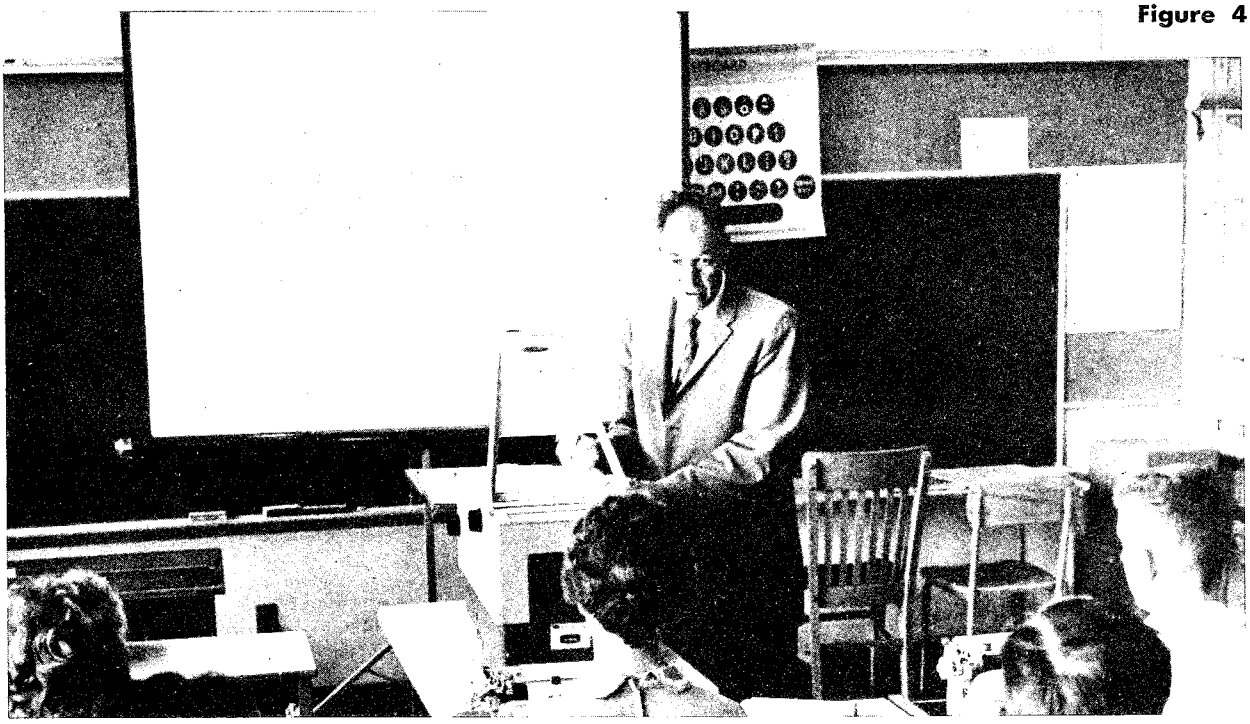
Recently, manufacturers of dry process copying machines have made available plastic sheets on which high-quality reproductions of original documents or maps can be reproduced in the same size in positive, negative, or, in some cases, color form. The transparency is ready for projection in a matter of seconds. It is advisable, of course, to prepare visuals in advance, but the new system makes it possible to change or correct any originals, to make and project transparencies for discussion of on-the-spot information, and even to make transparencies of the minutes of a meeting as soon as it is over for approval or correction.

The overhead projector can be of great help in conducting better planning commission or zoning board of appeals meetings. For example, an important letter can be read by all members at the same time. Other items, such as sketch maps of individual groups of properties, or charts representing board actions in zone changes or the granting of exceptions or variances, can be projected and consequently end the need for a number of people crowding around a single copy. Valuable staff time may also be saved, since a single transparency may take less time to prepare than a large map or chart.

In the case of confidential data, where only one copy is permitted, a transparency can be made right in the room and shown for discussion to those present, and then destroyed after the meeting.

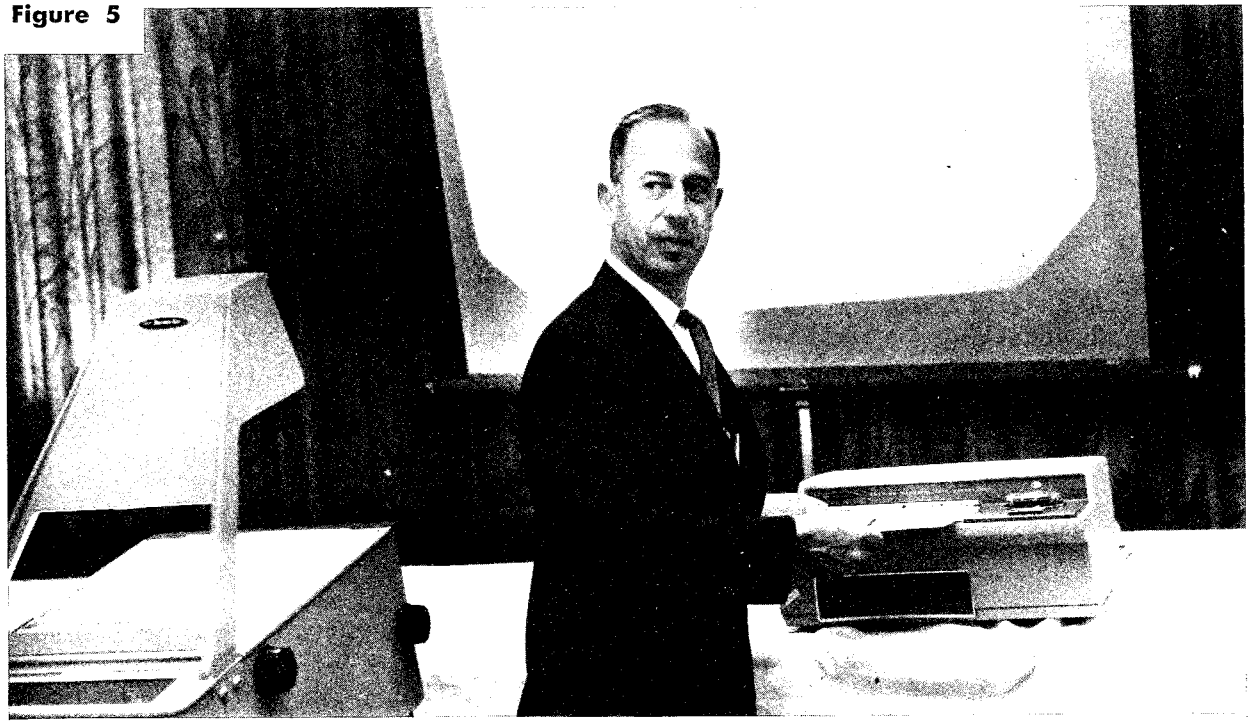
One of the disadvantages to using the overhead projector is its bulk. Some traveling cases are equipped with wheels, so that they may be rolled from place to place, but a feminine planner may have trouble transporting a projector halfway across a city to a meeting.

Figure 4



This teacher has made a transparency from a letter written in a business class, and is using an overhead projector to discuss it with his students. Mistakes have been circled with grease pencil, and a pencil is being used as a pointer.

Figure 5



A projection transparency can be made on this new copying machine in four seconds, ready for use on the overhead projector. A speaker can, for instance, make a transparency of new material for showing to his audience with scarcely a pause in his presentation.

Various attachments are available for some overhead projectors which permit the projection of slides and filmstrips. Other projectors are equipped with a continuous roll of acetate on which illustrations may be drawn with a grease pencil. The roll may be cranked in either direction. Transparencies may also be prepared on a polarized film to create movement.

The average cost for an overhead projector is $300, while transparency making machines run from $175-$350, depending upon color copying capabilities and other factors. The actual making of transparencies is usually as cheap as or cheaper than making 2 x 2 slides. Acetate and mounts can be obtained from the projector manufacturer, in the standard sizes of 7 x 7 or 10 x 10 inches.

Slide Projector

Remote control automatic slide projectors that show between 36 and 80 2 x 2 inch slides in a tray or magazine have been made available to the consumer market in the past several years. They are excellent A-V tools for instructional use.

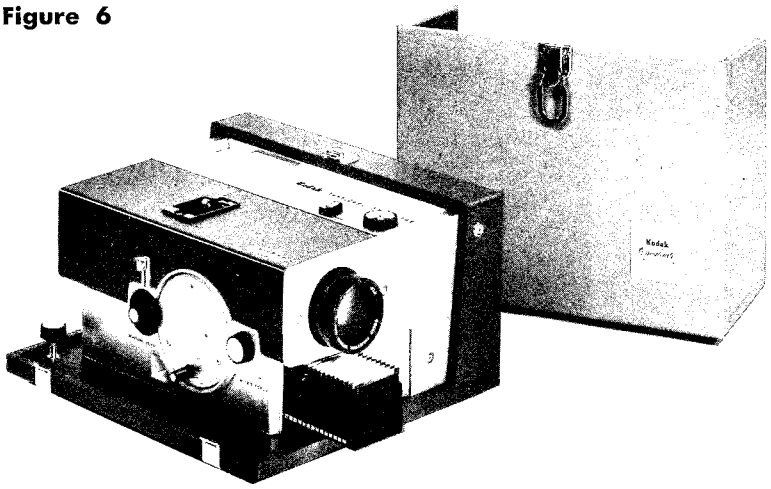
Special attachments are available for many of the different models. An extra-long remote control cord and a lens to enlarge the picture dimensions would be of value to the planner. With the remote control cord, he can stand next to the screen and face the audience while changing slides. Other models permit remote control without the encumbrance of a cord. One new model permits fade-out and fade-in of pictures, without ever having a blank screen. The same model will allow superimposition of two slides, which could be an effective way to present urban redevelopment progress. The lining-up of the subject for perfect overlay will, at the very least, require the use of a tripod, and may best be done by a professional photographer.

One of the primary differences between preparing visual material for slide presentation and overhead projector transparencies is size. The overhead projector requires that the original be the same size as the transparency, with a 1:1 ratio (maximum 10 x 10 inches). Slides have a 3:4 ratio, the height being 3/4 of the width. The size of the original is dependent upon the reduction capability of the camera photographing it, and its distortion limitations. The copying of charts and maps is best left to a professional with the proper lighting and other equipment. Exterior shots are frequently handled with competence by planners.

One of the other problems attendant to the use of slide projectors, and also motion picture and filmstrip projectors, is the matter of light. Darkness is needed to view the pictures, but some light is obviously needed to read the accompanying script. The problem is made more complex if a large chart is to be displayed between series of slides. Frequent turning on and off of lights is distracting to the audience. A spotlight on the planner, standing off to one side of the screen, can be an effective solution. Blank, opaque slides will permit him to leave the projector on and maintain his remote control, while focusing attention on his words. Charts prepared with phosphorescent paints, and "blacklighted" at the proper time, will also permit a slide and chart presentation to flow smoothly without turning on the room lights.

Titling of slides can be a problem to the planner who would like to prepare

Figure 6



Slide projector, with 40 slide magazine capacity.

his presentation on an amateur basis. Of the thousands of "stock" title slides available commercially, some may fit the planner's presentation. For others, and perhaps for all of the photographs needed, a local camera club may be willing to make a project of helping the planner.

Most planners are familiar with the costs of taking and developing slides. Projectors range in price from $75 to $300, depending primarily upon the enlargement capability of the lens and the number of attachments, such as remote control cords.

Slide presentations are frequently made more effective by adding another piece of audio-visual equipment, such as the tape recorder. For example:

> . . . a planning director in our area recently made a photographic survey, on colored slides, of overhanging signs in the city's downtown area. He tape-recorded interviews with people on the street on what they thought of overhanging signs. He coordinated the slides with the interviews and dubbed in recorded music for emphasis and interest. When this was shown before the city council, the impact was startling. The council directed the planning commissioner to draw up a tight ordinance regulating overhanging signs; and the council sent it back to the planning commission when the first draft was not restrictive enough.[10]

Screens

Screens are wonderful, but are they necessary? Every planner has seen slides or motion pictures adequately projected on a wall or sheet. The answer is obvious: screens are not always necessary, but they certainly help by both presenting a sharper image and lending a professional air to the presentation.

The above generalized statement needs one qualification: the opaque projector requires the use of a screen. The fact that light is being reflected from an opaque object, rather than passing through a transparent film, requires the best possible viewing surface.

Screens fall generally into four categories:

Mat Surface. The mat surfaced screen has a good light reflection capability. The viewing angle, within which the audience must be sitting to see the picture, is almost 180 degrees. This type of screen is recommended for use with the opaque projector (in the dark) and the overhead projector (in the light).

Glass Beaded. These screens are designed for use in a long, narrow hall. The viewing angle is approximately 20 degrees.

White Lenticular. The "wide angle" screen, designed for use in a short wide room, has a viewing angle of approximately 45 degrees.

Silver Lenticular. This screen, with a 35 degree viewing angle, is best used in a semi-dark room.

Screens range in price from $15 to $900, depending on size, portability, and other factors. The top price mentioned would be for a large, wall-mounted, electrically controlled screen.

Phonograph

Due to the limited use of records as an audio aid, and further discussion of them under Sound Slidefilm Projectors, we need do nothing more here than mention that a record, unlike a tape recording, cannot be changed or edited once it has been made. Prices for phonographs range from $30 to $300.

Sound Motion Picture Projector

Adding sound to a motion picture greatly increases the commercial cost of production. One piece of equipment permits the planner to do the work himself. With 16 mm. magnetic film, the planner can erase and replace sound at will. A magnetic projector, which will both record and play the sound, costs $800 and up. Whether or not the capability is worth the investment is up to each planning agency to decide. Standard sound motion picture projectors range in from $400 to $900.

Tape Recorder

The tape recorder has two functions in the operation of an A-V program: to rehearse a presentation; and to record "live" interviews.

A tape recorder is an excellent device to use for rehearsing a talk, especially when using overhead transparencies, slides or a 35 mm. filmstrip. By replaying a tape, the planner becomes aware of how he sounds and can decide where he'll want greater or less emphasis.

The planner may want to take a tape recorder out in the field and tape "live" interviews to learn people's opinions about a current issue. Later on, the taped interviews can be used when projecting the visuals, along with photographs of the person speaking and of the subject of his comments.

Tape recorders are available in prices ranging from $175 to $1000 and up. Most are easy to operate. The planner will usually need a recorder with two speeds. A relatively fast speed is used for quality recording, such as background music. The slower speed, used for interviews or other sounds with lower quality demands, permits longer playing time on one tape. He should consider its size and weight as they affect transportability. Stereo tape recorders, which fall into the the

higher price range, may warrant the expense with a simple, dramatic recording of traffic noises, adding that extra bit of effectiveness which could sway the city council in favor of a new street plan.

Sound Slidefilm Projector

A sound slidefilm is frequently produced when the budget is not large enough for a 16 mm. sound motion picture, but the need is still recognized for an audio-visual presentation of a professional quality to tell an exciting and informative story.

The length of a sound slidefilm program is determined by the size of the phonograph record used. A 10" 33-1/3 r.p.m. phonograph record has a maximum playing time of 11 minutes per side, a 12" 33-1/3 record a playing time of 16 minutes per side, and a 16" 33-1/3 record a playing time of 25 minutes per side. The 35 mm. filmstrip, the visual part of the presentation, may include 50 to 55 frames for an eleven minute presentation or over 155 frames for a twenty-five minute sound slidefilm program. Each frame should be viewed for 3 to 30 seconds.

There are two ways to insure that the voice on the phonograph record matches the visuals on the screen. One method is the bell system. A bell sound is heard on the record as a signal to the projectionist to change to the next frame of the filmstrip. The other method is the inaudible system. An inaudible signal on the record, unheard by the projectionist or the audience, triggers the filmstrip projector automatically and it changes to the next frame. To begin a sound slidefilm presentation with an automatic projector, the projectionist focuses the picture on the screen, turns up the volume on the speaker, places the phonograph needle on the record, and from then on the program is completely automatic.

For a sound slidefilm production, the planner may want to have a professional film producer do the script, photography, artwork and recording. Creating a sound slidefilm production, just as with slide, overhead and filmstrip productions, begins with a script. The script writer is in command of the presentation; he cannot, as in the case of a slide presentation, depend upon the side remarks of the planner to compensate for his verbal mistakes of omission and commission. He is addressing an audience that he cannot even respond to as his story unfolds. The script writer has an obligation, therefore, to make his story very interesting to his audience; his presentation must be audience-centered to an even greater degree than in the case of the overhead transparencies or slides which the planner can adapt to the audience's interest and background knowledge.

The sound slidefilm script writer must constantly comprehend the relationship between the visual and the audio, and the over-all concept that is being developed. He must be able to write in pictures as well as words, saying the same thing with both in different ways. The writer must conceive his script in words that are to be spoken and heard, not read. The spoken language must be smooth, rhythmic, and pleasing to listen to. Sentences should be more often short than long, and should flow with the visuals.

After the script's completion, the visuals are prepared. The procedure is exactly the same as preparing the visuals for a 35 mm. filmstrip. Then the

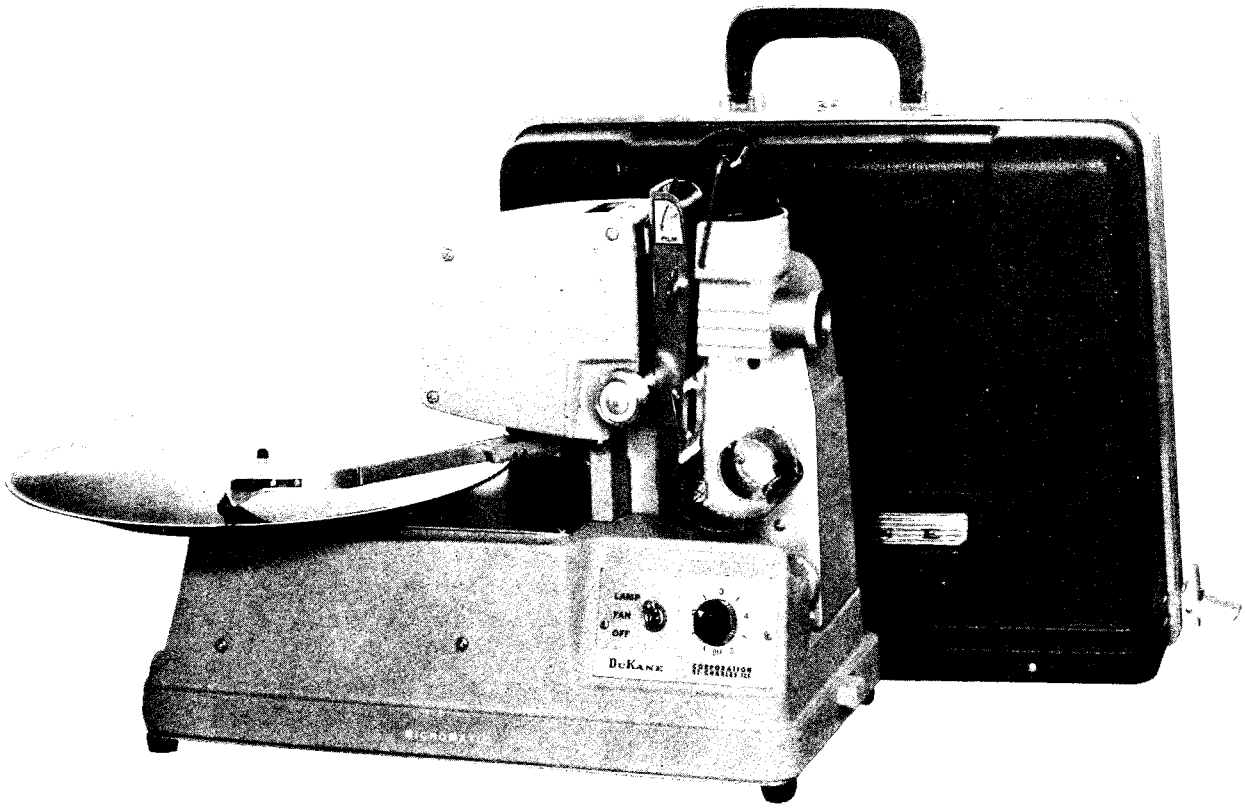
recording, making the master phonograph record, takes place. At this time, the professional narrator must interpret properly the script writer's punctuation to bring out the meaning and to give the desired emphasis to his various sequences. At the recording session, opening and closing music and sound effects are added.

Duplicate filmstrip prints and phonograph records can be packaged into a self-contained audio-visual sound slidefilm educational kit. The cost for a sound slidefilm produced by a professional producer will range between 50% and 65% less than a 16 mm. sound color motion picture.

Should the planner desire to write his own script and make his own recording, studios can be rented on an hourly basis. In addition to the time charge, there is a fixed charge for the master recording, and an additional charge for adding an inaudible signal. The planner may want to make three different recordings for the same filmstrip, each slanted to a different type of audience, and this is, of course, cheaper than making three separate productions. Care must be taken to insure that the quality of the script and speaking voices do not reflect the "homemade" aspects of the production.

The filmstrip, either silent or with sound, offers an exciting opportunity for the imaginative planning agency. A small library of filmstrips can be prepared by the agency itself to serve its own peculiar needs. A series of filmstrips

Figure 7



Portable sound slidefilm projector and carrying case.

could deal with different elements of the community planning program. Thus, different programs for various kinds of audiences could be prepared. For example, a filmstrip on the place of industry in the city plan would be shown to businessmen's groups, or to college or high school classes in urban geography. The following titles are illustrative:

The Planning Commission and Its Work
Transportation in Our City
The Park Plan and What It Means to You
What Is Zoning?
How Planning Pays in Our City
How the Capital Improvement Program Saves Your Tax Dollar

There are two principal advantages to developing a library of filmstrips. First, presentations are more lively, informative and interesting. A sound slidefilm never forgets to make an important point that may be forgotten in a speech by a nervous planner, nor does it ever get a hoarse throat. Second, the use of filmstrips with accompanying scripts gives an opportunity for less experienced members of the planning staff to perform, consequently takes some of the burden from the director.

Sound slidefilm projectors cost between $150 and $250. It might be noted that one model uses a tape recorder instead of a recording, with the obvious advantages of easy erasure and replacement of the sound. However, the process, like color TV a few years back, needs a little more perfecting.

PUTTING A-V AIDS TO WORK

The actual selection or design of the audio-visual aids and equipment is now beyond the control of this report. The next problem is the method whereby the speaker, in the course of giving his presentation, remembers to use the aids. The use of a professional script format is by far the easiest and most reliable tool available.

The written plan is a script. A script can be written by the planner or by a professional scenario writer, and may take one hour or a fortnight to finish, depending upon the creative craftmanship required and the difficulty of the subject matter. A script that spells out the visual and audio offers an opportunity to review a presentation in perspective, and give a good picture of the spacing of the illustrations. At some future date, the script will be an excellent reference source for the design of a more complex A-V presentation.

Planners who are amateur photographers may photograph a number of exterior scenes, such as railroad crossings or unsightly signs, for an illustrated lecture they plan to give the following week. However, by preparing a script in advance that includes interior scenes, charts and diagrams, a more complete program can be presented that will be more interesting and informative.

For example, in the following fragmentary script sequence for a slide presentation, which makes use of the professionally recommended format, the planner is pointing out the need for a central business district thoroughfare plan:

Visual	Audio
1. Exterior long shot from Plymouth Building third-floor window of extremely busy intersection at Main and 5th Sts., 5 p.m.	Many of us know that the traffic congestion at this one corner causes delays and even
2. Exterior medium shot at Main and 5th Sts. intersection. Full view of attractive teen-age girl in driver's seat of an automobile stopped at light	jangled nerves. Delays that have a reason.
3. Exterior close shot of teen-age girl in #2.	Our young people, the new drivers in our community, and new families moving into the city have
4. Artwork. Bar chart showing automobile registrations for 1960, 1961 and estimates for 1962 and 1963.	boosted car registrations. In 1960 we had 35,000; 1961, 37,000; for 1962 we estimate 40,000; and for 1963, 43,000
5. Flat copy. Proposed street map from comprehensive plan.	Your planning commission has designed this street plan to meet our anticipated needs.
6. Flat copy of #5 with celluloid overlay. Hand-letter the figures 43,000 on the celluloid.	This is a traffic plan to take care of the 43,000 automobiles in 1963. A plan to reduce the
7. Photograph of recent automobile accident.	number of automobile accidents, which are
8. Interior medium shot of planning commission members sitting around	our planning commission's vital con-

a table talking.	cern. The commission reviewed many studies and made recommendations to our city council. Here is
9. Repeat slide #5.	what they call for. . . .

Naturally, in the complete presentation, pictures and discussion might include, for example, parking lots filled to capacity, trucks parked in moving lanes of streets because of the lack of off-street loading areas, traffic flow maps, a street with traffic moving easily, and, for a touch of humor, an infuriated motorist blowing his horn.

In preparing this slide presentation, motion picture techniques were used for slides #1, 2 and 3. A long shot includes the subject plus a sufficient amount of the background to identify the situation for the viewer. The medium shot includes less background with the subject much more prominent than in the long shot. In the close-up, the subject fills the frame. If a person's face were to be the close-up, the long shot would be the entire figure, with the medium shot showing the torso and head. This technique is often used with excellent results in television documentary programs depicting historical eras before the development of motion pictures.

For slide #4, the services of a film producer, an artist or an art studio might be required, although a talented planning staff member can often do the job. The bar chart, the original artwork, can be 9" x 12" or 18" x 24" because of the standard slide proportion ratio of 3:4. The direction of the proportions is not too important, since the slides can be turned when they are placed in the projector's magazine. If the artwork is going to be done outside the office, it is a good idea to prepare a "rough" of a chart and then go over it with an artist for an estimate. Cost may range anywhere from $10 to $45, depending upon the time required and the artist's skill. Slide #5 is a photograph of a map which can be reduced by a photographer at the 3:4 proportion ratio. Slide #6 would be prepared by an art studio. The artist takes a piece of celluloid which fits over the map and hand-letters the numbers on the celluloid. A photograph is then taken of the result, with special care being necessary due to the reflective qualities of the celluloid. Slide #7 is made from a black and white photograph. The background can be cut out, leaving only the subject matter for the audience's concentration. Slide #8 can be taken directly at a meeting. Slide #9 is another original or duplicate of slide #5.

When developing various audio-visual scripts, it may be desirable to organize a picture file. Magazine advertisements showing families doing things, such as walking in a park or working in their yards, can be of value in A-V program planning. A good color reproduction of a picturesque housing development or a modern turnpike can also be useful. Professional photographers know many tricks for composing a good photograph. Their pictures can be used as a guide for planning script sequences and the composition of photographs to be taken by the planning agency staff.

In the script, a touch of humor can be added to hold the audience's interest.

One of the best places to take humorous pictures is at the local zoological park. Animal slides can be inserted in a sequence whenever drawing a comparison or making an analogy. For example:

Visual	Audio
23. Close-up of the side view of an elephant.	Yes, this is a big program. Big in scope and big in design.
24. Close-up of a lion.	From time to time we may have certain groups attack our program, but
25. Close-up of a giraffe.	we try to foresee all of the problems before they are immediately upon us.

And pictures of children can relate the plan to the long-range growth of the community:

Visual	Audio
51. Close-up of a baby.	This baby (give name if possible) was born five weeks ago in our community hospital. Let's imagine for a moment how our town will look to him five, ten or even eighteen years from now.
52. Close-up of boy five years old.	When he is five years old, in 1966, these changes will have taken place.
. . . . .	. . . . .
59. Close-up of boy graduating from high school.	In 1979, when he is graduating from high school, our town should look like this.

The usual procedure after the script is finished is to read the audio aloud and time it. An A-V presentation may take from 10 to 40 minutes. In some presentations, there could be over 200 different pictures. As a planner gains experience, he'll no doubt want to vary his timing. In any case, the script is his tool for the preparation of a smooth presentation. In addition to the visual notations as shown here, the planner may indicate a change from slides to easel-mounted charts, or, on the audio side, the place where a tape-recorded interview is to be played. These are nothing more than cues, and the design of the professional script is such that it is hard to miss a cue.

SUMMARY

Audio-visual tools can be used to do a great number of jobs. They can be an invaluable aid when communicating to five or 500 people. Their effectiveness, of course, depends upon many factors, such as the amount of money available and the amount of time spent in preparation. An audio-visual program can be worth the time and money invested, provided that sound and realistic goals are established which are related to the needs and understanding of the many audiences throughout the community.

Readers may have noted an unusual amount of overlapping and cross-application of principles and ideas in this report. This is intentional, for to exhaust all possibilities under each piece of equipment would require volumes. The consolidation of ideas and principles into one or more methods of presentation is a matter for each planner to determine individually. Little more can be done here than to reiterate a few of the widely scattered but important principles involved in the institution of an audio-visual program.

First and foremost, a program should be undertaken simply and modestly. We know of the little boy who coaxes his father to buy him a complete set of trains and then, after the large expenditure, quickly loses interest. It is better to leave the expensive technical gadgets and special effects to the future. Start with one piece of equipment and master its use. Add the various attachments, or go on to another piece of equipment, as needs dictate.

Choose equipment which is easy to operate and transport. If it will be necessary for the planner to work alone, avoid equipment which is best used with the help of an assistant. The continuity of the speech may be impeded by necessary adjustments or operations. On the other hand, never feel compelled to apologize for slight delays caused by setting up an aid. Audiences are aware, for example, that the showing of a motion picture requires the setting up of a screen and projector, dimming of the lights, and so forth. In these situations, it is usually best to simply tell the audience what is going to happen, and perhaps ask help in performing the necessary operations.

All of the non-reproduction types of audio-visual equipment, as well as the slide, overhead and opaque projectors and the tape recorder, are excellent audio-visual tools for a presentation which may be changed from time to time. These types of equipment are recommended for presenting information on a speci-

fic problem that is particularly timely, and therefore will be discussed only once or twice before audiences.

The filmstrip, sound slidefilm and motion picture projectors are used for programs of a more educational and permanent nature. Filmstrip and motion picture, and even slide, presentations can be designed so that a classroom teacher or program chairman can show the presentation and read the script, with no one from the planning agency having to take valuable time to make the presentation. This, of course, brings up the matter of equipment. Schools usually have motion picture projectors, but an overhead projector may have to be delivered to a school presentation site.

Filmstrips and motion pictures are the most common audio-visual tools used in school systems, whereas sound slidefilms and motion pictures are the most common used in industry for long-range training programs.

The mixing of various pieces of equipment in a presentation can be extremely effective. Some examples have been mentioned, and serious consideration should be given to the possibilities. The problems of light and dark rooms must be considered, so that the transition can be made smoothly from one item to another. If, for example, slides and easel-mounted charts are to be used, they should not alternate, but be grouped together as much as possible. Consider renting one piece of equipment for a special presentation.

In seeking sources of material for an audio-visual presentation, do not overlook the files of the local newspaper or the assistance of a local camera club. Public relations men in your area who are interested in public service may help add a professional touch to a presentation through advice and ideas. Above all, do not exclude the local audio-visual dealer who will recommend equipment to fit a planner's budget and needs. If there are no professional studios in an area to assist in a filmstrip or other production, perhaps a local industry which handles its own productions for educational and instructive purposes will be willing to cooperate in some mutually satisfactory manner.

Planners interested in keeping up with current trends in the audio-visual field might investigate an associate membership (annual dues: $5) in the National Audio-Visual Association, which has as its purpose the stimulation of more widespread and effective use of audio-visual materials and equipment. The association's bi-weekly newsletter includes reviews of books on the field, as well as helpful tips and articles. Membership will help the planner meet the producers and suppliers in his area, and give him a head start on the road to effective audio-visual presentations.

ACKNOWLEDGMENTS

The authors, while not specifically endorsing or recommending the audio-visual equipment shown, wish to thank the manufacturers who supplied the photographs: figures 1 and 3, Bell & Howell; figure 2, Viewlex, Inc.; figures 4 and 5, Minnesota Mining and Manufacturing Co.; figure 6, Eastman Kodak Co.; and figure 7, DuKane Corp.

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