# THREE FILMS FOR TEACHING TELEVISION PRODUCTION

Thesis for the Degree of M. A.

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William L. Broecker

1960

# THREE FILMS FOR TEACHING

# TELEVISION PRODUCTION

By

William L. Broecker

AN ABSTRACT

Submitted to the College of Communication Arts of Michigan
State University in partial fulfillment
of the requirements
for the degree of

MASTER OF ARTS

Department of Radio, Television and Film

1960

Approved 

William L. Broecker

ABSTRACT

This study undertook the production of three motion pictures to be used as aids in teaching selected aspects of television production techniques to students in the Television, Radio and Film Department at Michigan State University. This thesis describes the creative procedures employed in the production of the films.

The subjects of the films are, respectively:

The Television Switching Panel

Continuity in Cutting

Potentialities of Movement

The study arose from a need to relieve teaching problems caused by increasing enrollments and by growing demands upon the facilities of the University's television station, WSMB, whose studios are used for laboratory sessions of the television production courses. A discussion of these problems constitutes Chapter I.

Chapter II reports the method by which subject matter for the films was selected. The definition of the physical nature of the films as 16mm black-and-white presentations of about fifteen minutes' length and the creation of scenarios and shooting scripts are described in Chapter III.

Chapter IV indicates that in order to facilitate the organization and execution of the shooting stage of production, the films were considered to represent parts of a single, longer motion picture. The production procedures and the techniques followed in the subsequent phases of editing and commentary writing are then described.

The last chapter recommends uses of the films in the curriculum and makes suggestions for the evaluation of their effectiveness. The use of the thesis as a guide to the production of similar motion pictures is also suggested.

An appendix devoted to each film presents the treatments, scenarios, shooting scripts, editing notes and commentary scripts created in the course of the study. A glossary of motion picture production terms is included.

The project films are deposited with the Television, Radio and Film Department at Michigan State University.

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## ACKNOWLEDGEMENTS

I am indebted to the many persons who assisted as performers and crew members in the production of the films: Thomas Banks, Lawrence Baril, John Dunlevy, Donald Dumbrowsky, Jack Hogan, Kay Ingram, Lawrence Lindberg, Richard Reynolds, James Rice, Robert Rowland, Herman Rudolph, Helen Shaw, Robert Smith, Janice Somers, Gaye Vela, James Vormelker; and, especially, to my wife, Louise.

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There is no way to express my gratitude to Dr. Colby Lewis for his stimulation, encouragement and guidance.

# TABLE OF CONTENTS

# INTRODUCTION

This thesis project is composed of two related parts.

One part, the core of the project, has consisted in the production of three motion pictures for teaching selected aspects of television production techniques to students of the Television, Radio and Film Department at Michigan State University. The subjects of these films are respectively:

The Television Switching Panel

Continuity in Cutting

Potentialities of Movement.

The negatives and prints of these films are deposited with the department.

The other part of the project, represented by this text, describes the procedures employed in producing these films and presents recommendations for their use.

This report assumes that the reader is familiar with the terminology of television production. It is recognized, on the other hand, that the reader may not have an equal familiarity with the terminology of motion picture production. Accordingly, a glossary of motion picture terms used in this report has been provided.

The text has been organized into the following chapters:

Chapter I, The Nature of the Study, explains the need for such a project and indicates the method by which the study was carried out.

Chapter II, The Content of the Films, outlines the method by which subject matter for the films was selected.

Chapter III, The Form of the Films, reports the method employed to define the physical nature of the films and describes the creative process by which a scenario and shooting script for each film were developed.

Chapter IV, The Production of the Films, indicates what preparations for production were made, describes the production and editing processes, and reports the creation of a commentary script to accompany each film.

Chapter V, The Uses of the Films, presents recommendations for employing and evaluating the films in the curriculum.

Appendixes contain actual treatments, scenarios, shooting scripts, editing notes and commentary scripts.

A Glossary provides brief explanations of motion picture production terms used in the text.[1] Other works containing fuller discussions of each term are indicated.

A Bibliography lists works which have directly contributed to the author's background and preparation for completing this project.

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[1]Terms included in the glossary are marked with asterisks wherever they are first used in the text.

# CHAPTER I

## THE NATURE OF THE STUDY

A major problem in teaching television production is the lack of sufficient class time in the studio laboratory. The purpose of laboratory class sessions is to offer to each student direct experience with studio equipment and operations. Many factors combine to reduce the maximum amount of experience a student might expect to receive.

Laboratory sessions of the television production courses offered by Michigan State University meet in the studios of the University's television station, WMSB. The studios were used by the station for thirty-eight hours of broadcasting each week during the Spring quarter of 1959. An additional weekly requirement of thirty hours accommodated special rehearsals, production of regular and special kinescope program series, staging and lighting set-up, maintenance of equipment, and special tests, demonstrations and workshops. The four television production courses were allotted a total of only eighteen hours a week. This figure contrasts with totals of twenty hours a week allotted in 1957 and twenty-two hours in 1958.[2]

While the allotment of studio time has fluctuated during recent years, enrollment in the television courses has risen. Records of the Speech Department[3] and the Television, Radio and Film Department show

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[2]Figures gathered from station records. 1958 shows a temporary increase reflecting a period when the station suspended broadcast activities to transfer from channel 60 to channel 10. The allotment was reduced when the station resumed broadcasting.

[3]Television courses were taught within the Department of Speech until 1958.

that enrollment in the beginning television course has increased in the past three years: fifty-one in 1957; sixty-seven in 1958; seventy-two in 1959. The other courses have experienced increases of about the same proportions.

There is no indication that this enrollment trend will reverse itself. On the other hand, the station anticipates the necessity of further reducing the class time allotment under pressure of increased rehearsal and video tape production schedules.[4]

Thus, over the past three years there has been a decrease in the amount of studio class time per student resulting from cutbacks in studio time allotments and increases in enrollment.

The lack of studio time also seriously affects the quality of instruction carried out during a laboratory class. It is necessary to provide demonstrations of equipment operation and examples of production techniques during studio sessions. Each demonstration reduces the amount of time available for student practice.

But of greater concern to instructional quality is the amount of time and rehearsal required to prepare such demonstrations and illustrations. There is no time available for studio rehearsal outside of classes; time within the classes is at a premium. As a consequence, the instructor is forced to rely upon a minimum of studio preparation. He tends to favor those examples which require the least rehearsal. Vividness and completeness of illustration often suffer as a result.

Because the examples presented to the class must exhibit a high degree of presentational competence to be effective, studio demonstrations

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[4]This probability was reported by the WMSB Production and Facilities Manager.

are weakened by a shortage of experienced performers and production crew personnel. Class members cannot adequately participate in the examples because they lack training. Station personnel are not available to the classes on a regular basis. Students from advanced courses cannot be scheduled easily for the necessary rehearsals and performances to primary courses. For the advanced courses there are no student crews and performers adequate for the demonstrations required except with long and detailed rehearsals.

The quality and variety of studio demonstrations and examples is further impaired because the studios are used for daily broadcasts. In order to accommodate the many studio activities, station personnel often set and light various programs well before rehearsal time. The television courses frequently find themselves meeting in preset studios; they may utilize existing sets and lights, but may not disturb the arrangement of either. Under these circumstances it is almost impossible to provide a laboratory illustration that hinges on the relationships between performer, camera and set if the illustration requires a set different from the one already in place.

In some instances studio arrangements may be disturbed temporarily. However, the time required to strike an existing set, erect, light and strike the example set, and finally to re-erect the original set takes more of the class period than is reasonable--the relative value of the example is so sharply reduced that it is often abandoned or else is presented in makeshift fashion.

It is evident that the laboratory experience of television production students is being impaired by factors of decreased studio

time, increased enrollments and difficulties in preparing and presenting adequate demonstrations and examples.

There is a need for a means to ease some of the time limitations now imposed on studio class sessions. There is an additional need for a means to improve the quality of demonstrations and examples presented in connection with such classes.

One means to these ends consists in the use of motion pictures as teaching aids. Films have earned a welcome place in classrooms as a result of the many advantages they offer. There are several advantages of particular value for teaching television production.[5]

The use of films need not be restricted to the studio; portable screens and projectors can make a viewing room out of any classroom. The studio is in effect taken wherever it is convenient for the class to meet, and the direct photographic realism possible in films assures a precise representation of the equipment or situation under discussion.

The size of the projected image offers a clear view of the material to all students. This is in direct contrast to the many studio situations where only a few students at a time have a clear view of a demonstration. A notable example is a demonstration of the video switching panel. The compact nature of control rooms and the small

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[5]For the demonstrated teaching effectiveness of films see Charles F. Hoban, Jr. and Edward B. van Ormer, Instructional Film Research 1918-1950.(Rapid Mass Learning), A.Report on the Pennsylvania State College Project jointly sponsored by the Department of the Army and the Department of the Navy [Port Washington, N. Y.: U.S. Navy Special Devices Center, 1951]. For the employment of films in the curriculum see Max R. Brunstetter, How To Use the Educational Sound Film (Chicago: University of Chicago Press, 1937): Andrew Buchanan, The Film in Education (London: Phoenix House, [1951]); and Charles F. Hoban, Jr., Movies that Teach (New York: Dryden Press, [1946]).

size of the panel make it impossible to offer direct instruction concerning this panel to a large group.

The fixed arrangement of the content in films assures that the material covered and the quality of presentation are the same from class to class. This is particularly important in cases of large enrollments divided into two or more sections of a course: films help to standardize the level of instruction.

Locally produced films may be closely supervised by course teachers so that the films may be tailored to fit specific course requirements or to fill a special need among all the courses. This is important to television courses because equipment and practices vary significantly from station to station. The films must reflect the necessity for courses to adapt to local facilities and standards.

Short motion pictures may be produced relatively inexpensively. This is especially true when one considers the cost in time and effort of developing, rehearsing and presenting demonstrations for each new class. Further savings result if the use of films shortens the teaching time required to cover the same material. A direct reduction of expense is achieved when the films are made silent: sound track recording and editing are eliminated.

Silent films offer an additional advantage--adaptability. The instructor may prepare a commentary specifically designed for the level of his class; as changes occur in class makeup he may easily make accommodating changes in his commentary. Furthermore, with alternate commentaries a film may be adapted for other uses. For instance, a film on camera operation could be adapted to teach cutting techniques, principles of lighting, acting techniques or other subjects.

This method of adaptation also makes it practical to use a film more than once in the same course to accomplish different pedagogical purposes. A film might first be shown to illustrate certain production principles, later to provide a basis for class analysis and discussion and a third time as a device for summary and review.

A commentary delivered by the instructor provides, in fact, a sound film without sound film expense.

Motion pictures offer several advantages which may be grouped under the heading "flexibility."

There is flexibility in the arrangement of the material within the film. Editing techniques allow the teacher to experiment with different arrangements until he devises the one that best suits his purpose. He may choose also from a wide range of filmed examples and combine several into a unified whole. The result is a concise presentation with a richness of variety impossible to duplicate in the studio.

Additional flexibility is found in combining directly photographed material with other material prepared by the kinescope recording process. This permits the insertion of actual program and rehearsal examples into a presentation.

If the original material has been photographed at twenty-four frames-per-second (as would be necessary to facilitate inclusion of kinescoped material) the instructor may present the film at the same, "normal" speed, or he may slow it to sixteen frames-per-second to permit more detailed examination.[6]

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[6]Most 16mm projectors provided for classroom use are equipped to run at both "sound" (24 frames-per-second) and "silent" (16 frames-per-second) speeds.

When the length of a film is not great, the instructor has flexibility in developing the subject matter of the course and inserting the film where it will serve the greatest purpose. A long film has the disadvantage of imposing its presentational organization upon a sizable area of course content.

Many of these advantages which might be enjoyed by teachers of television production courses at Michigan State University are not found in the films presently available.

All but one of the current films about television production are at least twenty-five minutes long. Immediately, the flexibility that a short film offers is lost. The exception referred to is a ten-minute film designed to explain the technical aspects of television transmission to the layman.[7] This subject is of the nature of background material for the courses under discussion; it is not directly pertinent to studio production techniques.

Some presentations have been specifically designed to teach television production. A series of four kinescope recordings produced by the Educational Television and Radio Center has been made available to member television stations. Institutions affiliated with such stations have access to the presentations; other institutions must apply to the Center.[8]

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[7]"Television: How It Works," produced by the General Electric Company, is available from Coronet Instructional Films, Coronet Building, Chicago 1, Illinois.

[8]Distribution offices of the Center are at 2320 Washtenaw Avenue, Ann Arbor, Michigan.

These kinescopes all have the relative disadvantages of a length of twenty-five to thirty minutes. This reduces flexibility, as previously noted. When coupled with an introduction and a summary and discussion, films of such length usually take up all of a fifty minute class period. However, there are some instances in which this employment of class time may be valuable.

As an example, the Center's kinescopes Television Directing, Parts I and II, treat very basic and necessary subject matter. Part I discusses common patterns for arranging persons appearing in interview and discussion programs; Part II illustrates typical camera placements for televising those arrangements. It is not unreasonable to spend one or two hours on these aspects of production. On the other hand, the films exhibit the weakness of separating two interdependent techniques into separate topics of study. A presentation which did not create such a division might be pedagogically preferable.

A third kinescope in this series is Television Lighting. Although it offers a good demonstration of basic lighting techniques, its half-hour length is devoted to showing both wrong and right ways of lighting a very few examples. The time might be used more profitably to illustrate the right ways of handling a greater variety of situations. The value of the film lies in its presentation of an extremely complex illustration, one which would require many hours of setting and rehearsal for direct studio presentation. The fourth kinescope, dealing with staging techniques, also has this advantage.

Staging for Television presents a great array--drawn from several stations--of sets, scenic pieces and properties. It is an

array far greater than it would be practical to assemble for a studio demonstration. The film limits its audience, however, through emphasis on matters of set layout and design. Television production students are primarily concerned to understand first the construction and handling of sets. Although student directors may be concerned with set layout, matters of design are not within the direct province of most production personnel and are not usefully made the central emphasis of study.

These seeming deficiencies of the Center's kinescopes result only from an attempt to use the presentations for undergraduate classes. It must be remembered that the kinescopes were prepared for use by the professional or semi-professional staffs of television stations.

There are motion pictures about television production available from other sources, but most such presentations are tailored to meet the specific requirements of a commercial producing organization. Typical of this group are the several presentations produced by CBS Television for use in training their network and station personnel. Although these films and kinescopes may be rented for educational use,[9] they have the instructional disadvantage for television courses of being designed for a highly complex professional operation, one beyond the immediate understanding of most students. The films present many illustrations of equipment and standards of operation and practice peculiar to CBS Television; except in a general way, they do not accurately represent the environment of the studio laboratory.

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[9]From the Production Development Department, CBS Television, 485 Madison Avenue, New York 22, N. Y.

The author knows of no nationally distributed films or kinescopes prepared for use in university courses. All films and kinescopes available, from whatever source, share a lack of specific reference to the course orientation and studio situation most familiar to the student. The films can well serve to illustrate additional techniques and practices; they can offer a catalog of current practices throughout the television industry; they cannot fit directly and specifically, with maximum usefulness, into the courses taught at Michigan State University.

The foregoing discussion has demonstrated the need for a means to alleviate problems of time limitation on studio class sessions and for a means to improve the quality of studio laboratory instruction. Although motion pictures could admirably supply the means to both ends, there are no films available with sufficient particular reference to the local situation or with enough flexibility to meet those needs.

The purpose of this thesis is to meet the demonstrated needs by providing three motion pictures for use in teaching television production techniques at Michigan State University.

These three films furnish a means to illustrate selected production techniques without creating an additional demand for studio time or facilities. When carefully integrated into the courses, the films may improve the quality of laboratory instruction by furnishing to the student a wider range of illustrations and examples of practice than he would otherwise receive. The films free studio time that may then be used for further student operation and practice. The films also relieve the teacher of some of the burden of long and involved preparations for studio demonstrations--he is free to concentrate more completely on other problems of instruction in the course.

The thesis films are in the nature of pilot presentations. They must be integrated into the courses and their usefulness must be carefully evaluated. If it is demonstrated that they fulfill their purpose, the procedures for their production may serve as a guide in the production of similar films to solve related teaching problems.

The method followed in the production of the films was composed of three phases.[10] The first phase determined the content of the films. A set of criteria was developed for use in evaluating suggested topics. The criteria were applied to a group of subject matter suggestions with the result that three were selected, each to be the topic of a single film. The general content of each film was expressed in written form--the treatment.*

The second phase determined the form of the films. The general physical dimensions were decided first, then a comprehensive outline of each film was created to determine the range and organization of the material and the major visual treatment; this was the scenario.* The scenario formed the basis for writing a shooting script* which was used as a guide for the production procedures.

Phase three was the production of the films. This included photographing the material specified in the shooting scripts, editing the material into succeeding stages of refinement, writing a suggested commentary for each film, to be used in its presentation, and reviewing and adjusting the visual and aural materials until the final presentations were achieved.

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[10]Reports of the three phases make up, respectively, Chapters II, III, and IV.

Recommendations for the use of the films are included as a part of this report.[11]

[11]Chapter V.

# CHAPTER II

## THE CONTENT OF THE FILMS

Although the form and the content of a motion picture are closely interwoven, a discussion of the creation of an instructional film must separate them in the interests of presenting a comprehensive report. The scheme adopted follows the sequence of development of the project films: the present chapter outlines the method by which the topic of each film was selected and indicates general subject matter content; the next chapter includes a discussion of the specific development of the content into written forms of the filmic statement of each topic.

This project was designed to provide films specifically tailored to the instructional requirements of the television production courses taught at Michigan State University. Four courses provided a base from which content was selected: Fundamentals of TV Broadcasting I and II (TRF 352 and 353, respectively), Television Directing (TRF 433), and Television Program Development (TRF 437). The first three courses are offered to students doing their major work within the Television, Radio and Film Department, the fourth to students from other areas of study.

The teachers of these courses, Associate Professors Colby Lewis and Arthur Weld and Assistant Professor Gordon Gray, acted as advisors on film content and organization. The author consulted with them individually and as a group during the project.

The first result of such consultations was a set of criteria for evaluating suggested film topics. The criteria incorporated

considerations of the conditions giving rise to the project, the nature of the instructional medium to be used, the value of flexibility in using the films, and the desirability of experimenting on all course levels. The criteria stated:

1. Subject matter must be selected from material that suffers in studio instruction from limitations of time, space or facilities.
2. Subject matter must require direct visual illustration for its best communication.
3. Each film must be of use to more than one course.
4. The films must not all be directed primarily to the same course.

Suggestions of film topics were drawn from the experiences of the advisors and the author in teaching the production courses.[12] Those suggestions which did not meet all the criteria were immediately discarded. Topics suggested by only one person were eliminated, even though they satisfied the criteria, in favor of topics suggested by two or more persons. Discussions of these latter topics showed that the multiple suggestions arose from a greater need for instructional aid in these areas.

The final result of the selection process provided that there should be three films: one to teach the operation of the video switching panel, one to illustrate some principles for maintaining pictorial continuity when cutting between camera shots, and one to discuss some of the dramatic effects to be obtained from camera and performer movement.

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[12]The author taught TRF 352 in 1957 and 1958.

These topics satisfied the established criteria in the following ways:

The Television Switching Panel is a subject that presents difficult instructional problems in the studio. The panel is small and is located in the compact studio control room--conditions which limit the group which can be instructed effectively to about six, those who can crowd around the instructor to see clearly. Under these circumstances the teacher must repeat the instruction two or three times to encompass a class of usual size. There is also the problem of providing activity and supervision for the part of the class not being instructed.

Proper demonstration of panel operation requires that various picture sources be available to illustrate the video effects. This means that several cameras and the slide and film projection facilities must be manned and made available to the class. Such a requirement is difficult to justify when the needs of other classes and rehearsals occurring at the same time are considered. Even if the necessary facilities could be obtained, using them for three repetitions of the same instruction remains unreasonably wasteful.

When, in an effort to solve this problem, various instructional devices are considered for use out of the studio, most of them are found to be unsatisfactory. Mock-ups and other scaled models are too complex and expensive to be useful. In a size sufficient to be seen easily in the classroom, their bulk and weight prohibit easy transportation and storage. Charts, diagrams or still photographs may be used to show the layout of controls on the panel, but their static character makes them unsuitable for teaching the sequence of operations used to create various visual effects.

In fact, the major problem in teaching the switching panel outside the studio is the representation of panel operations and related visual changes as dynamic occurrences. For instance, the nature of a dissolve or a fade can no more be illustrated effectively by blackboard diagrams or still photos than can the physical actions that create them. The teaching aid used must be capable of recreating a progressive visual change in time so that the student may experience and understand the element of duration as a major factor in the change.

It is obvious that motion pictures offer the only medium other than television capable of providing this element. More than that, a kinescope recording of a video effect offers the event itself rather than its simulation.

Direct photography of the panel and its operation provides a representation that does not suffer from lack of detail or realism. Furthermore, no student suffers from being in an unfavorable position for viewing the demonstration--his position is identical with that of the camera.

With regard to its use in the courses, the primary audience for this film is the Fundamentals II course (TRF 353) where operation of the panel is taught. It is also planned for inclusion in a survey of studio equipment in the Fundamentals I course (TRF 352) and for use in the Directing course (TRF 433) as a review device (especially useful with students returning from a summer's interruption of their training).

Each of the two remaining films was chosen because it would solve problems of presenting examples and illustrative scenes in the studio.

Continuity in Cutting requires a great variety of examples to show the principles of maintaining pictorial continuity in editing. As explained in Chapter I, studios and adequate crews are not available to the instructor for the amount of time required to create and prepare several illustrations. Although he may dispense with rehearsal and try to ad lib the crew through their positions as the example progresses, he finds that this procedure almost doubles the presentation time. The time is easily tripled if he draws upon his inexperienced class to provide a crew. Such a choice also demands a repetition of the lesson for the benefit of the original crew, who could not attend to a monitor to view the illustration.

If the class accompanies the instructor to the control room, their attention is diverted by the directing commands that intersperse his explanations of the principles being shown. The presence of individual camera monitors tends to divert attention from the line monitor where the effects of cutting are to be observed.

When the instructor attempts to circumvent these difficulties by placing the direction in other hands so that he may accompany the class to a separate viewing location, he encounters a new set of problems: a director must be trained to make the presentation; coordination of the examples with the progress of the lesson is hampered by the separation; an intercommunication system between instructor and director introduces an interruptive and diverting factor; and additional class meeting space must be found in the station or closed-circuit facilities must be used to reach an outside classroom. All the problems are severe.

Continuity in Cutting obviously must be taught by direct visual means. Of the three topics, this is the one which might be presented most easily outside the studio through the use of still photographs. However, when this method is employed instruction suffers from the lack of the dynamic element of instantaneous change. There is no substitute for seeing a picture suddenly lurch as the result of a cut between mismatched screen locations of the subject; no still pictures can give an audience the impact of the displacement felt when disparate camera positions are joined by a cut; no still pictures can adequately illustrate the principle of timing a cut to coincide with subject movement.

Motion pictures offer an obvious solution to the studio problems and they provide the necessary dynamic elements for an out-of-studio presentation of the subject. The time invested in preparing a large number of examples is justifiable in that, once they are photographed, the time need not be expended on succeeding classes. Proper editing of the film gives the instructor a set of illustrations that progress in the order and at a pace suitable to him, and the order may be changed in only a few minutes. All of the advantages of presenting the effects on a single screen, as they are seen by the television viewer, are retained. During the presentation the instructor may devote himself to the class; he is not required to supervise the work of others while he is teaching.

The overall result can only be an improved presentation of the illustrative material; it is reasonable to assume that the quality of instruction will improve as a consequence.

Continuity in Cutting is for use in the directing course and in the course for non-majors (TRF 437). It is also designed for use in TRF 352 (the beginning course) to illustrate good and poor camerawork and picture composition.

The title of the third film offers ample testimony to the need for motion pictures if the subject is to be taught outside the studio: Potentialities of Movement cannot be demonstrated by static pictures or diagrams.

In-studio instruction in this topic faces many of the same problems discussed in connention with the film on cutting: preparation time of examples is too great; camerawork required is beyond class capabilities; instructor-as-director creates a division in class attention; and other directors present coordination and communication problems. The need for a large number of examples and illustrations of cutting is here replaced by the need for two or three more complex scenes. The performers must carry out well-rehearsed, carefully controlled movements. At the same time the camera crew must demonstrate a high level of skill in complementing the acting movement. Although crews might be drawn from the class, the coaching necessary to provide clear illustration of the points under consideration would consume too much time.

A film presentation of this material can retain all the dynamic qualities of movement. The staff of the television station can be used to provide professional camerawork. And, kinescope recordings of relevant examples from actual programs can be included easily.

Students in the directing course are the major audience for Potentialities of Movement. It may be used in TRF 437 to acquaint non-majors with this material. A secondary purpose of the film is to demonstrate advanced camera techniques to TRF 353, the second fundamentals course.

In the above ways the films satisfy the first three criteria. As a group they satisfy the fourth criterion that they must not all be directed to the same course level thus: The Television Switching Panel is for TRF 353, Continuity in Cutting is equally usable in TRF 433 and 352, and Potentialities of Movement is intended for TRF 433. All of the films are suitable for use in TRF 437.

Of course it was not possible to discuss and select the film topics without considering their individual subject matter ranges. Various guidelines for the development of the films' content evolved in the course of consultations with the instructors.

The Television Switching Panel was conceived as a film for teaching skills, in which the student is first familiarized with the equipment, then instructed in its operation. Accordingly, the content was chosen to cover three areas: (1) layout and nomenclature of the panel; (2) purpose of the controls; (3) operation of the controls and the effects created: "take" (cut), fade out, fade in, dissolve and superimposure.

As a general topic Continuity in Cutting brought to mind several principles worthy of treatment. In the interests of brevity, clarity and directness, the content was limited to four fundamental considerations: (1) location of the center of interest within the frame;

(2) orientation of the audience to the overall scene; (3) shot sequences to preserve orientation; (4) location of cameras around the scene.

Potentialities of Movement embraced the least tangible subject matter; its purpose was that of illustrating some advantages of movement as a presentational technique. It was agreed that the student tends to conceive of television as a series of individual camera views joined by cuts, fades or dissolves. Therefore, a presentation of a different conception was welcomed. The film content was charged with three aims: (1) to show movement used to complement dramatic mood and plot development; (2) to show movement used to heighten an audience feeling of participation in the scene; (3) to illustrate these principles of using movement: simplicity, dynamic line, selectivity, motivation, and variety.

The outlines which incorporated these requirements were the first written expressions of the films, the treatments. Each treatment indicates the general divisions of the content and suggests some visual techniques. The treatments served as the starting point for the development of subsequent scripts.[13]

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[13]Copies of the treatments may be examined in the appendixes. In professional work, a treatment is a comprehensive prose narrative which details the content, development and scenic presentation of a film. The project treatments are less comprehensive than this; the term has been borrowed and applied to the nearest equivalent form of the project films.

# CHAPTER III

## THE FORM OF THE FILMS

At this stage in the project, script writing could proceed only when questions of physical form had been answered. For instance, should the films be silent or sound? 8-, 16-, or 35mm? Black-and-white or color? Direct photography, kinescope recording, animation or some combination of these? The physical dimensions had been considered in a general way; now they had to be definitely established. The dimensions chosen and the factors which influenced the choices are reported below. Following that, the development of the scripts is described.

### Physical Form

The major factors which determined the physical nature of the films were compatability with existing equipment, flexibility of use, and cost.

In the matter of film size, it was essential that the pictures be compatible with the equipment available for projection in the classrooms and over closed-circuit television systems. All such equipment at Michigan State University uses 16mm film. It was also necessary that directly photographed scenes be compatible with kinescope recorded scenes; 16mm was satisfactory for this. Finally, 16mm cameras and editing equipment were readily available for the project.

Camera speed was determined by the plan to incorporate kinescope excerpts in the films. The recorder operates at twenty-four frames-per-second; all other material would have to be photographed at

this speed so that upon projection all movement would proceed at the same rate.

The need for flexibility in using the films influenced decisions regarding length, processing and sound. As noted previously,[14] a long film tends to impose its organizational scheme upon a lesson. The project films are intended to be teaching aids that subordinate themselves to the instructor's organization of the lesson. Therefore, a relatively short length was called for. Discussions with the instructors established that a running time of approximately fifteen minutes would be reasonable for each film. The usual class session is fifty or one-hundred minutes (a double period) long. A fifteen minute film would allow adequate time for introduction of a film and for subsequent class discussion. The final length could not be specified exactly, of course, for that would be a result of the final editing. However, the recommended length provided a valuable guide for script writing.

A concern with flexibility also determined whether the films would be photographed on stock which gave a negative or a positive image when developed. A positive image process provides only one copy of each film; editing must be carried out on the original footage and there is no replacement if the film is damaged.[15] Although photography on negative film stock incurs the expense of positive prints, the flexibility

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[14]Chapter I, p. 9.

[15]From the original positive, a duplicating negative can be made from which additional prints may be obtained. However, some picture quality is lost by this process for resulting prints are two generations removed from the original, and film expense is at least doubled over an original-negative process. See in the Glossary: dupe, neg-pos, direct positive, and reversal.

gained is far more important: experimental editing carried out on workprints* will not damage the original footage; sufficient prints can be made for two or more classes to use the same film simultaneously; additional prints can be made whenever necessary (e.g., to replace old, worn copies); and alternatively edited prints for experimental or other teaching purposes can be made without affecting the master copy of the original film. These advantages combined to make negative film stock the most desirable choice.

Cost and flexibility were equally determining factors in the matter of sound. The simplicity and directness of the films are increased by limiting the sound portion to an explanatory narration. Adding this or any sort of sound to the films permanently would increase their cost by about two-thirds, a wasted expense when it is remembered that each film is intended for more than one audience: no single sound track could provide two levels of instruction with maximum effectiveness in either. As anticipated, the solution decided upon was to make silent films and to write a suggested commentary for each of them. The instructor can deliver the commentary when he shows the film; he has the advantage of being able to pace his delivery to class reaction and of being able to adapt the narration to individual class requirements. Of course, permanent sound tracks may be added later by various recording* methods, if desired.

Whether the films should be black-and-white or color was decided by content, production and cost considerations: none of the subject matter depended upon color for effective presentation; kinescope recorded scenes could be only black-and-white; problems of sets, costumes, light-

ing and makeup would be increased drastically and production time nearly doubled if color photography were undertaken; color editing problems would be complex and the inclusion of optical effects* would be extremely difficult; finally, the cost of color negative stock and processing would be at least one-and-a-half times that of black-and-white, and positive prints would be correspondingly as high. Clearly, black-and-white was the only choice.

The question of whether the films might contain animated sequences was left open at this time although it was recognized that the subject matter did not seem to require animation,* that facilities for complex animation were not readily available, and the the cost in time and money could be great.

In sum, the physical dimensions of the project films were set at: three black-and-white, 16mm silent motion pictures of about fifteen minutes' length, to be photographed and kinescoped on negative film at twenty-four frames-per-second with animated sequences if necessary.

Once these limits were established, script writing could proceed.

## Script Development

Three script forms were created for each film: (1) a scenario* to show the scene-by-scene relation between a comprehensive visual presentation of the topic and suggested narration; (2) a shooting script* to provide, in sequence, complete and exact descriptions of every camera shot required; (3) a narration or commentary script to assist the instructor in presenting the film. The creation of scenarios and shooting scripts is described below. Commentary writing is reported in Chapter IV after a

discussion of editing--the process to which it was directly related. (Copies of these three script forms have been placed, together with copies of the treatments and editing notes, in the appendixes so that the progressive development of each film may be studied easily.)

The creative problems encountered in scenario writing reflected the diversity of the subject matter. The Television Switching Panel deals with a demonstrable physical task, a skill; the other two films deal with principles of presentation, but they differ in this. Continuity in Cutting has reference to presentational principles which can be shown directly--good and poor shot relationships can be created in the editing and then experienced firsthand by the audience. Potentialities of Movement treats a far less tangible subject: the interpretation of a scene by the director and the expression of that interpretation in the camera treatment. The word "potentialities" indicates the film's subjective qualities. These differences in content inevitably led to motion pictures quite different in style, within the limitations established.

Although there was no rigid pattern to the creative process of scenario writing, certain steps were common to all the films. The steps began with organization of the content. The treatment had suggested major divisions of subject matter; discussions with the advisors and the author's creative consideration of each topic provided many ideas for amplifying the content. The first step was the selection and arrangement of the best of these ideas into a sequence that provided clear subject development and that could be expressed in visual terms. As this sequence was evolved, so was a style of filmic expression--a

visual manner and technique by which the content could be made explicit; this was the second step. Third, the content sequence and visual style were incorporated into a series of specific scenes which by their settings and action gave particular expression to each subject matter point. And last, the filmic style was further defined by the arrangement of the scenes to indicate the editing scheme which would give all sections--and the film as a whole--pace and rhythm in their development.

These steps were not necessarily taken in the sequence listed above; creative ideas of treatment and technique arose without regard for a formal pattern. As a result, the steps overlapped and interacted so that none was done with until the scenario as a whole was completed. In each case the scenario gave difinitive form to the filmic expression of the content and in all three cases the writing required a constant anticipation of production and editing problems and procedures. Ideas were evaluated not only in terms of how well they conveyed the subject matter, but whether they were technically feasible as well. In addition, the worth of a visual image could be estimated only in terms of those which would precede and follow it.

The Television Switching Panel required a step-by-step exposition of the panel's organization and operation. The scenario provides this by presenting the material in five sections: (1) a brief introduction (scenes 1-4); (2) basic nomenclature and relation of switches to cameras (scenes 5-11); (3) operation of the Take bus (scenes 12-32); (4) operation of the Effects bus (scenes 33-70); (5) summary and review (scenes 71-86).[16]

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[16]Throughout, scene numbers refer to the appropriate scenario, shot numbers to the shooting script; see the appendixes.

The introduction provokes interest by presenting an unidentified scene and using it to illustrate the range of effects with which the film deals: cut, fades and dissolve. (Superimposures will be treated as a partially completed dissolve.) Thus the "teaser" opening serves an instructional purpose. Narration is used to present the general topic: changing between shots; the title specifies the exact subject. (The fact that the instructor's preliminary remarks and the general progress of the course probably have identified the film topic before the showing does not obviate the need for a formal statement of subject within the film.)

Physical layout and basic nomenclature are kept to bare essentials in the first major section. The panel as a whole is considered, its major parts are named and the relationship of the pushbutton switches to external equipment is established. However, in keeping with the overall presentational scheme of moving from general to particular, no attempt is made to name the other controls or to show internal panel relationships between the busses, the effects switch and the fader handles. These are taken up as the need for them arises in subsequent sections.

The next section, which begins to show the operation of the panel, is faced with the problem of identifying certain shots as being taken by specified television cameras. The solution used is to show a TV camera and then pan to reveal the action it is focused on (scenes 12, 13 and 20). Cameras 4 and 5 are shooting the same scene used in the opening, thus it is already familiar to the audience. Its appearance here establishes the existence of two levels of reality within the film.

The first level of reality is the actuality of the panel and its operation; the second level is the "play-within-a-play" artificiality of the demonstration scene. That this second scene is the less real of the two is evident in the fact that it (i.e., the shots showing it) undergoes change whenever action in the other scene takes place.

Such a two-level presentation could not be written without first determining some major production and editing considerations. To begin with, it was necessary to show the cause-effect relationship between panel operation and video change. The difficulties of trying to show both elements in the same shot were great. A TV monitor placed by the panel would bring cause and effect together, but the picture could not be photographed properly because of scanning rate differences between the monitor and the film camera.[17] Alternatively, the two elements could be photographed separately and combined in a split-screen* process during printing but the cost of this technique would be prohibitive. No matter what technique might be used, there remained the disadvantage of placing two centers of interest and attention on the screen at the same time. Such a presentation would require several repetitions of each action to insure adequate distribution of attention between the two elements. Clearly, this was not desirable from the standpoints of directness of communication, economy of means and brevity of presentation.

If, however, the principle of parallel editing* were utilized, each line of action (panel and demonstration) could be worked out and

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[17]TV monitors scan at 30 frames-per-second, the film camera at 24, with the result that the frame line between two TV pictures is frequently photographed as it moves down the screen.

photographed independently. Their relationships would be established by the editing which would alternate shots from each in the proper cause-effect pattern. This solution was adopted; it is expressed by the arrangement of the scenes.

In this way the construction of the film resulted directly from the anticipation of a later phase of the film-making process. Essentially the construction is: "When the action is this (shot of panel operation), the result is this (shot of video effect)." In the scenario, as soon as the demonstration setting is established (scenes 12-13), the parallel editing technique is brought into use (scenes 14-15); it is employed consistently throughout the remainder of the film.

A second problem posed by the two levels of reality was that of providing as many distinctions between them as possible. Although not a matter of writing, the solution arose during creation of the scenario when the construction and editing schemes were developed. It is discussed here as another example of the essential unity of the creative procedures in all phases of the project.

As noted above, the scanning rate differential prevented photographing the demonstration scenes from the face of a monitor. If these scenes were directly photographed, there would be no significant difference between "actuality" and "artificiality" other than pictorial content--a substantial difference, to be sure, but additional cues were being sought as an aid to the audience.

One such aid could be the simulation of a TV set on which the examples are seen. Any techniques of photographing the scenes directly and of providing this simulation with a mask* or matte* were eliminated

for being either too complex or too expensive. Furthermore, direct photography presented a problem in creating the necessary fades, dissolves and superimposures. Since the camera was not equipped to accomplish these effects with sufficient accuracy while exposing the negative, they would have to be added during printing--a process which would complicate the editing[18] and would increase the cost considerably.

The answer to these difficulties lay in kinescope recording. The reduced quality of the kinescoped picture (compressed gray scale, reduced brilliance and increased "graininess"[19]) would provide additional differentiation between the demonstration and the directly photographed scenes of panel operation. As for the video effects, they would be accomplished during recording through the use of the panel itself. The examples would be recorded exactly as seen by the television cameras, the effects exactly as the panel created them. And, no unusual processing or printing expenses would be incurred.

Thus two major techniques in the making of the film, editing and photography, were determined as scenes 12-32 were being created. Although the editing scheme chosen had the more direct effect upon the scenario, the knowledge that roughly half the film would be kinescoped exerted an influence on the choice of these and subsequent scenes.

In the last part of the section scenes 26, 28 and 30 were also selected to be kinescoped in order to remain consistent in the use of a picture of reduced quality to represent the picture taken by a TV

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[18] A- and B-roll editing would have been necessary; see Glossary: editing.

[19] Actually the enlarged image of phosphor dots on the kinescope tube face.

camera. Of course, the shots taken by cameras 3, 4 and 5 are the same as previously established. This technique is used again when the montage* of scene 26 is repeated in the review section (scene 74).

The third section of the scenario (scenes 33-70) takes up the Effects busses and the fader handles. These are masked off at first and are slowly revealed (scene 33) to illustrate the idea that panel flexibility was increased by the addition of duplicate elements (additional busses). The Effects button and fader handles are explained simply as switches to facilitate using the extra busses. In each case the ideas of novelty and complexity are avoided in order to prevent the audience from feeling that the many details are too difficult to comprehend easily. Throughout the film every new element is first labeled, then its function is shown and then the effect of its operation is illustrated by the example scenes.

The review section of the scenario uses the titles "Take," "Dissolve" and "Superimposure" as summary and review devices; they are integrated into the visual scheme so that the manner in which each appears illustrates the technique to which it refers. This provides additional emphasis of the point.

In order to reduce the diversity of attention required from the student, the scenario uses the same example scenes (demonstration and test pattern) in each section. The sections are separated from one another by brief periods of black which act as outline divisions or organizational landmarks. In order that this technique will not obtrude as an artificial device, it is incorporated into the flow of the film to provide pauses that arise naturally from internal motivation. In scene 11 the narration refers to "black" and its visual

occurrence illustrates the reference; in scenes 31-32, 69-70 and 85-86, black is caused by a panel operation: its visual occurrence is accepted--within the frame of reference established by the editing scheme--as the proper consequence of the action. Shot descriptions in each section are somewhat general in the knowledge that camera positions and shot composition will be more explicitly stated in the shooting script.

In its totality the scenario provides a cohesive filmic expression of the content called for by the treatment. It permitted the subsequent creation of a shooting script with ease and it became the basic point of reference when the commentary was written.

The scenario of Continuity in Cutting posed problems quite different from those of the switching panel film. From the beginning, there was no question about the editing style, for editing was the very subject of the film. And, it was anticipated that direct photography would be used because no optical effects or kinescope inserts were required. Organizationally, the film divided naturally into an introduction, sections devoted to each of the principles of continuity, and a review. The order of the sections could follow a simple progression: first, location of the center of interest, because this is common to all the principles; next, orientation to the scene; then, the sequence of shots that will preserve orientation; last, location of cameras around the scene and how orientation may be lost even with proper shot sequence. All these matters were easily determined.

It was the manner in which the film was to be experienced that gave rise to the central problems--clarity and emphasis.

Early in the consideration of the scenario it became evident that shots showing the ostensible locations of TV cameras in relation

to the example scenes would be superfluous: it was the pictures the camera took that were important, and camera location would be directly evident in these pictures. (The audience for this film, students in the directing course, have enough experience to immediately deduce each camera position without difficulty.) Therefore, the whole film seemed to require a subjective presentation, one which would place the audience in the same position as the viewer of a television program--only the results of cutting would be seen.[20] However, a subjective presentation offered difficulties in conveying the organization of the material and in stressing each subject matter point. Some method of objectifying the essence of each principle in the film was required.

The first step toward finding this method was to express each of the content divisions in a concise identifying phrase. The results were the names "Screen Location," "Orientation and Sequence" and "Viewpoint." The second name groups two principles together because they are virtually inseparable: "orientation" has an editing meaning only in terms of the sequence of shots which reveal a scene and the action within the scene.

In an early draft of the scenario these names were used as titles to introduce the individual sections. The content of each section included two or more example scenes which first showed violations of the principle, then showed obedience to it. The examples drew upon

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[20]Thus this film demands a single level of participation for, in effect, it says, "You, the viewer, see this when a cut is made," and the audience experiences the event subjectively. This contrasts with The Television Switching Panel which in effect says at one moment, "You are a class member; observe how you will operate this panel," and at the next, "You are the audience; this is what you see when someone at the panel performs that operation." The audience experiences the first image objectively, the second subjectively.

familiar situations which students encounter in class exercises or which are readily observable in most television broadcasts. Upon review, this draft revealed a weakness in the indentification of the three principles. Despite the fact that the examples illustrated the points well, there was insufficient stress on the essential meaning of each section. A further method of emphasizing the content was sought.

It was recognized that additional titles would serve no purpose, for if the problem could be solved verbally, it could be disposed of in the commentary. But such a course of action could only result in sections of narration that diverged from the pictorial content or that demanded a static, generally meaningless picture while the explanation was spoken. Both of these results ran contrary to a visual use of the film medium; neither was desired.

Accordingly, attention was turned toward the task of finding a visual objectification of the principles, some image that would contrast vividly with the realistic photography of the examples in each section. Early efforts created individual cartoons to represent each principle. As this approach was explored the images were continually revised and refined, and soon a trend toward increasing stylization became apparent. Carried to its logical extreme, the result of the trend would be a single abstract symbol for each principle. Seizing upon this idea, the cartoons were abandoned and a consideration of various symbolic representations was taken up. The result was a group of geometric figures which would be presented as mnemonic devices associated with the central meaning of each principle.

The clarity and familiarity of geometric forms helps to free them from misinterpretation; they are readily accepted as simple symbols

for they do not appear to be attempts to make abstract representations of objects shown in the realistic scenes. Their nature is so distinct from all other images in the film that they acquire the desired objectivity: when a symbol appears it signals the audience that this is the core of the principle, the essence.

The symbols were chosen on the basis of what was required to show the operation of each principle. Mismatched screen locations essentially cause the center point of interest to jump around within the frame. Exaggeration of a point, a dot, so that it is easily visible leads directly to a circle or to its three-dimensional equivalent, a sphere.[21]

Cuts relating to sequence reveal themselves in the changed size of the subject. Because changes in height are easily seen, a tall figure--a cylinder--was chosen. A sphere was added to the top when consideration of the cylinder showed that it tended to appear as a flat surface with insufficient visual impact. Size changes are thus revealed by changes in height and by changes in the diameters of the sphere and cylinder.

Confusing changes of background behind a constant figure are common results of improper orientation (meaning an understanding of the relationships among elements of a scene). Two distinctive backgrounds were devised to be placed behind the sequence symbol, one a vertical pattern of alternating bold light and dark stripes, the other a horizontal pattern of the same stripes.

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[21]The symbols were originally conceived as three-dimensional figures; they were changed to their two-dimensional equivalents during production: see Chapter IV, p. 51.

Viewpoint required a symbol that would illustrate displacement of the camera--and therefore the audience--up, down, right and left with regard to a common center of interest. A figure that was clearly discernible to have three dimensions was needed; it was found in the cube. Turned with one vertical edge closest to the viewer, three faces were always visible: two sides and top or bottom. When sketches showing varying views of the cube were compared, their differences were not readily apparent. Experiments with identifying marks on each cube face culminated in the use of large letters, turning the symbol into an alphabet block--to most people the most familiar example of the cube.

Many sketches were used in working out the visual elements of this scenario for it was not possible to develop the film by verbal means alone. Eventually, sketch content was incorporated in the scene descriptions for the convenience of bringing all relevant material into one written form. Shot sketches and floor plans of actor and camera movement also were used to assist in the development of the scenario for Potentialities of Movement. On the other hand, The Television Switching Panel was written without recourse to any but verbal notation.

Once the symbols were selected for Continuity in Cutting, there arose the problem of integrating them into the film so that they would achieve maximum impact. First, it was necessary to establish the existence and use of the symbols. The scenario does this at the very beginning (scenes 1-5). Next, they had to be worked into the main sections of the film along with the example scenes. At first they were used as summary devices placed at the end of each section. This use seemed

ineffectual upon close examination for it required the audience to think back over a section and recall evidences of the principle the symbol was now illustrating; the frame of reference came after the fact rather than before. The final scenario avoids this by coupling the symbols with the titles used to introduce the sections (scenes 6-7, 30-31 and 52-53). In this usage the principle is identified and then its essence is illustrated by the symbol to structure the audience's interpretation of the succeeding examples. Whatever other elements may occur in the scene, the audience knows what to watch for and can attend to it. Furthermore, the combination of title and symbol functions as an introductor device marking the beginning of each new content section; black is not required for punctuation here as it was in the switching panel film.

The final scenario retains the introduction of the symbols at the beginning of the film (scenes 1-5), as worked out in an earlier draft. It also utilizes them for a summary at the end (scenes 75-78).

Although different scenes were created to illustrate each principle, they all have much in common: each represents a typical program situation, one familiar to the student, and each has simple, direct action. These factors enable the student to grasp the situation at first glance; he is then free to concentrate upon the principle behind the scene. Making a scene especially interesting or complex would only have defeated its purpose.

Of the three scenarios, Continuity in Cutting required the greatest amount of revision before the final version was attained and, as will be seen in Chapter IV, the film was further revised in later stages of its creation. This need for continuing changes arose from

the difficulties of trying to develop in verbal form (albeit with sketches as an aid) a film which relies entirely upon editing to make its content manifest. No matter how many written refinements might be prepared, the clearest, most concise visual statement could be created only when the photographic raw material was examined and edited. Therefore, this final scenario must be considered as a more tentative expression of the film than the scenarios of the other two films.

A major portion of Potentialities of Movement was established after the treatment was written, but before creation of the scenario had begun. In discussions with the course instructor about the content of the film it was decided that dramatic vignettes or excerpts from actual programs would provide the best illustrations. This decision was based on the need to provide extended scenes which would provide more complex dramatic material than the examples used in either of the other films. Of the many possibilities considered, two were finally selected, one from each of the suggested categories. The number of examples was limited by estimations of the time required to present them.

A dramatic vignette came from a directing class exercise which had been developed from an original student effort. The student's original handling of the scene in fact had suffered from lack of movement. Because it represented a typical stumbling block in dramatic programs, the vignette was judged ideal for the purposes of the film.

The second example was drawn from the author's own television activity.[22] His children's program "The Land of Play" utilized camera and performer movement to increase the audience's feeling of participa-

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[22]As a Producer-Director at WMSB.

tion. Particularly usable was the opening of the program when each day a different form of imaginary transportation was used for a trip through the Land of Play to greet all the familiar residents there. In the course of the trip all the principles of movement specified in the treatment were used. This program excerpt was quickly agreed upon.

Because these major elements of the film were already selected, scenario writing became a problem of providing a suitable context for presentation of the examples.

The solution consists in first suggesting the need for movement in various situations. The introduction of the film uses one such situation to point out the need for movement and, further, to establish the kinds of movement which may be used (scene 1). Then a second situation (scenes 3-5) illustrates how cutting may injure a scene by presenting in fragments that which is better perceived through movement.

Presentation of the dramatic vignette begins with illustrations of the "wrong" way to handle the situation (scenes 6 and 7).. Then scene 9 shows an interpretation using camera and performer movement. Narration supplies the gist of the dialogue to add meaning to the physical action; actual dialogue is not used because it would divert attention from the purely visual aspects of the example and from the instructor's commentary.[23]

In order to show the relationship between the camera and the performers, this scene is reenacted with the television camera visible (scene 10). Narration emphasizes the techniques by which the dramatic effects just seen were achieved. A fade out closes this

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[23]And because of the cost of a sound track: see above, p. 26.

example smoothly and separates it from the program excerpt which follows.

After the Land of Play setting is established and the purpose of the opening explained, the excerpt is presented as it might appear with mishandled and undeveloped movement (scene 12). Then, instead of a repetition of the scene to point out difficulties of technique, an animated diagram is used to illustrate the confusion. Corrective measures are detailed and another diagram shows the simplification of movement that results (scenes 14-15). Finally, the improved treatment, the "good" example, is shown.

The concluding portion of the scenario uses repeat shots of segments of the examples to summarize the principles of movement discussed in the body of the film.

The dramatic vignette is placed first in the film because the differences between cutting and movement--the "wrong" and "right" treatments are easily seen and because certain basic techniques of movement are carefully shown with the TV camera. These provide a foundation for understanding the more subtle differences between the two movement treatments in the "Land of Play" excerpt. Animated diagrams are used in the second example because they reveal the differences between the two movement treatments graphically, whereas seeing the camera in each case does not reveal as much.

Although this scenario is less complex than the others from the standpoints of editing scheme and number of scenes, it is fully as visually varied as they are. Its dramatic content is greater and its ultimate purpose is more difficult of achievement, for the film is faced with the task not only of illustrating basic principles of movement but also of conveying an increased dramatic experience result-

ing from well conceived movement. The scenario is intended to organize and present the explanatory and demonstrative material in the manner that best contributes to this end.

Just as some production problems were anticipated and solved when the other scenarios were written, so a major procedure was determined during the writing of this scenario: the dramatic vignette and the program excerpt would be kinescoped rather than directly photographed. It had been acticipated that kinescopes of program excerpts might be used in the films; the decision to use them here took into account technical and presentational considerations.

Technically, it would be difficult to achieve smooth, controlled movement with the film camera to be used whether it was mounted on a movie tripod and dolly or on a television pedestal dolly: the camera was too light and too small to control easily. Secondly, the camera did not normally carry a film load large enough to permit continuous photography of the examples, nor did the spring-driven motor have a sufficient run from a single winding to take in the length of the examples. Although accessory film magazines and an electric motor could overcome these difficulties, the movement problem remained. Kinescope recording offered the advantages of mobile television cameras and the potentiality of recording continuously for thirty minutes if necessary.

Presentationally, kinescoping would provide picture quality which implied that the examples were typical programs excerpts because they would be visually distinct from the other scenes for which direct photography would be used.

Upon completion of the scenarios, shooting scripts were written. In each case these consisted of a detailed listing, in sequence, of

every shot required for the film. The shooting scripts contain several shots for each of the scenario scenes as a consequence of creating a specific visual interpretation of each scene. The sequence of shots was determined by the anticipated editing scheme.

A major consideration in preparing the shooting scripts was exactness of detail (e.g., indicator lights and fader handle positions had to coincide from shot to shot in The Television Switching Panel) and comprehensiveness of description of the action in each shot. Because the shooting scripts were to be used only in the preparation of visual material, no indication of narration was required.

A comparison of each shooting script with its scenario will show the scenario to be a comprehensive outline of the film, the shooting script a specific blueprint.

# CHAPTER IV

## THE PRODUCTION OF THE FILMS

Successive stages in the production of the films are discussed in this chapter in the following sequence: Production Organization and Preparations; Equipment and Materials; Procedures; Editing; and Commentaries.

### Production Organization and Preparations

In order to achieve the greatest economy of time, effort and expense, the three films were combined into a single production scheme in which the shooting scripts were considered to represent sections of a single long film. Scenic requirements of all the sections were correlated and each setting or location was assigned an identifying letter. Titles and other shots requiring no particular setting were assigned special letters.

Next, all the shots were sorted according to the settings in which they occurred. Each shot was identified by its number, a letter indicating the film in which it would be used, and the appropriate scene letter. An additional code letter denoted those shots which were to be kinescoped.[24]

A master floor plan of each scene indicated settings, lighting, performer positions and movement, and all camera positions and movement. A property list detailed all special requirements of each setting. Performer lists specified how many men and women were required

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[24]For the predetermination of kinescoped shots see Chapter III, pp. 32-33 and 44.

for each scene (the scenarios had only suggested whether men or women might be used) and included notes on costuming where necessary.

With the appropriate floor plan as a guide, the shots in each scene were sorted according to camera position and were recorded on a separate camera card for each position.

Rehearsal and production schedules coordinated studio availability with set-up, lighting, rehearsal and shooting requirements.

Finally, for every shot a sheet of paper was prepared which showed its number and code letters large enough to be photographed easily.

In this way a production packet was created for each scene. The packet contained a master floor plan, schedules, property and performer lists, camera cards, and shot identification sheets or slates.[25]

Titles and animated diagrams were also prepared at this time. A hot-press printing process[26] was used to make titles of white letters on black backgrounds to give maximum contrast for direct photography and for superimposures in the switching panel film.

It was first attempted to create "strip-tease"* cards for the animated diagrams required in Potentialities of Movement; however, the paths of camera and performer crossed each other at too many points to make this technique feasible. Consequently, it was decided to use a simple animation technique instead.[27] The floor plan diagrams which

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[25]The term slate arises from the use of a small chalkboard; it is commonly used generically to denote any such identification device and is so used hereafter.

[26]Heated type causes colored material to be transferred in the shape of letters from a celluloid strip to the title card.

[27]This technique is described below, p. 51.

would serve as backgrounds for the animation were drawn in dark ink on light gray board. This would offer good contrast in a print and would provide a negative which could be interchanged with the print, if desired, to achieve a white line diagram on black. (The decision would be made during editing when the use of positive and negative images could be compared.)

Upon completion of these preparations, a final check was made to uncover any inconsistencies among the materials in each production packet or between those materials and the shooting scripts. One shot was found to be misnumbered and it appeared that two unrelated scenes in Continuity in Cutting were to be photographed in the same setting. A numbering change and the creation of an additional setting--resulting in another production packet--disposed of the discrepancies.

## Equipment and Materials

All direct photography was done with a Bell and Howell model DL 16mm motion picture camera equipped with lenses of 10-, 25-, and 60mm focal lengths. The camera was mounted on a tripod with adjustable legs and center post.

Negative Plus-X and Tri-X film in 100-foot rolls was rated at the manufacturer's (Eastman Kodak) recommended exposure index.

An incident light meter was used to calculate exposure. Interior illumination was furnished by standard television incandescent lighting instruments; exterior illumination was daylight.

Settings and properties were borrowed from the stock maintained by WMSB. In many cases production planning had arranged for the use of regular program settings which would have been pre-set in

the studios for later broadcast use. Costumes were provided by the performers.

The studios of WMSB were used for both direct photography and kinescope recording of all interior scenes. During the latter procedure, other necessary equipment (i.e., image orthicon cameras, projection equipment and kinescope recorder) were provided and manned by the station.

## Procedures

The general pattern of photography followed this sequence: the set was erected and the lighting established; camera positions were marked on the floor; performers were rehearsed in the set and the the action was checked through the camera viewfinder; after sufficient rehearsal, lighting adjustments were made and a final meter reading was taken to determine the correct exposure; finally, the shot was taken.

Photography in each setting proceeded from long shot to medium to close-up positions so that chances of discrepancies in the action were kept to a minimum: working from general to particular gave the performer additional opportunity to standardize his gestures and smaller actions before significant details were photographed. Of course, rehearsals had disposed of most possible errors of this kind.

Every shot began with photography of the identifying slate combined with a second slate indicating the number of the take.* The action followed. No slate was used at the end of a take. Additional takes were made when action errors occurred, when performances lacked the desired quality, when camera positions were shifted slightly to improve angles of view, and when it appeared that additional footage

would be helpful in editing. As each take was finished, notes were made on the appropriate camera card to show its completion and, if necessary, to record changes in sets, lighting or action. In this way any shot that later had to be rephotographed could be exactly duplicated so that its details would match the details of the other shots of the same scene without having to rephotograph them as well.

In some instances extra shots not specified on the camera cards were taken. These were made when it appeared that additional close-ups or new camera positions would cover details better or would provide material for greater editing freedom. As an example, during the kinescoping of the switching panel demonstration scenes, it was realized that shots 17 and 18 could be improved. The shooting script called for shots showing a TV camera and a pan to reveal the action it was focused on. Extra shots were taken by the TV cameras so that after the pan a cut could be made to a kinescope shot of exactly what the TV camera was seeing. All extra shots were identified by the addition of a small letter to the number of the preceding shot; thus in the above example the extra shots were 17a and 18a. Appropriate camera card notes recorded these extra shots and indicated for what reason they were taken.

Photographic procedures were quite straightforward and offered no special problems except in the cases of the title cards, the symbols for Continuity in Cutting, and the animated diagrams for Potentialities of Movement.

Titles were photographed at one F-stop smaller than that indicated by the light meter--the white letters received sufficient exposure,

but the smaller iris aperture prevented any surface irregularities in the black background from registering on the film. This insured a solid black screen with white letters when the titles were projected.

It was first planned to photograph three-dimensional objects as symbols for Continuity in Cutting. However, difficulties were encountered in achieving constant screen location when the objects or the camera were moved to provide shots from varying angles of view. The solution consisted in making the symbols two-dimensional and in preparing different sizes of each symbol to correspond to the differences that changed angles of view would create. Then the camera and the background card were kept in fixed positions and the symbols were changed on the card as necessary while their location was kept constant.

The animated diagrams required that lines seem to draw themselves as they traced camera and performer movement paths. This was accomplished by shooting a few frames of the diagram, drawing on a segment of the line and shooting a few more frames, adding a second line segment, shooting some more frames, and so on until the paths were complete. Line segments were 1/4-inch long and four frames of each step were photographed so that upon projection the lines would develop at the rate of 1 1/2 inches per second. Several extra frames were exposed whenever a line reached a point of pause in the path. The length of the pause would be trimmed during editing to match the corresponding narration.

Titles, symbols and animated diagrams all were placed on an easel for photography and the camera's longest focal length lens was used to eliminate parallax* error.

The planning and organization of the production process permitted completion of set-up, lighting, rehearsal and photography in twenty hours: direct photography required one three-hour and two six-hour sessions; kinescope recording required two two-and-a-half-hour sessions. The studios were available for these relatively long periods of time because production was carried out in the late summer when demands for studio time were light: summer television courses had ended and the station had reduced the number of live programs broadcast each day.

The exposed film was turned over to the laboratory[28] for development. Editing and the writing of commentaries comprised the remaining steps in the creation of the films.

## Editing

To facilitate editing, a one-light print* was made by the laboratory from the developed negative. All editing was carried out on this, the workprint,* to save the negative from unnecessary handling and possible damage. In addition, the workprint permitted repeated experimental changes in the editing without loss of original material.[29] Editing commenced with a breakdown of the print into individual shots, for they had not been photographed in sequence. The slates provided immediate identification of all material.

With shooting scripts and production notes as guides, a first assembly* of each film was made in which all potentially usable takes

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[28]Capital Films, East Lansing, Michigan.

[29]Each splice in 16mm film destroys one frame because splices fall within, not between, frames.

of every shot and all extra shots were spliced together in sequence.[30] The slates were not removed. Each first assembly was revised by the removal of all material that a viewing of the film showed to be unusable. One take of each shot remained.

Study of the revised first assembly suggested some rearrangements and gave indications of approximate optimum lengths for some shots. In the process of making these alterations the slates were trimmed off and identification was transferred with a china marking pencil to the first frames of each shot; a parallel written editing list was kept also. The result of these changes was the rough cut.*

Further editing of each film consisted of successive fine cuts* to refine the sequence of shots and to eliminate excess footage. These revisions were based on the visual flow of the images and their interaction with the developing commentary. The end product of this process was the final edited workprint.

The last editing stage was comprised of the selection and cutting of the original negative to conform to the final edited workprint of each film. Edge numbers* printed on the negative by the laboratory before development also appeared on the prints; they greatly simplified the task of exactly matching corresponding portions of negative and print.

Differences between the revised first assembly and the final edited print may be observed by comparing shooting scripts and editing notes in the appendixes (with the exception that the shooting script

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[30]Production notes and inspection during assembly showed which takes were completely unusable.

does not include the extra shots inserted into the first assembly). The major editing changes in the development of each film are discussed below.

The Television Switching Panel required the least complex editing because the physical sequence of actions in the film demanded the order established by the scenario and shooting script. Only two deletions were made. In shot 45, the final action (pushing 4 in the Take bus) was cut out because it reversed the flow of ideas. Scenario scene 33, in which this shot occurs, introduces the Effects banks and includes an operation to activate them (pushing the Effects button). The eliminated operation had directed attention back to the Take bank, as if to imply that nothing further would take place in the Effects banks.

Shot 61 was deleted because it slowed the film by reintroducing an idea adequately treated earlier in the film (accidentally punching up a camera in another studio; cf. shots 29-32). Shots 60 and 62 were joined and the commentary adjusted to accommodate the deletion.

Some extra shots were inserted in this film, as indicated by the editing notes, but for the most part editing consisted in adjusting the length of each shot to create the best rhythm and pace for the development of the content. However, efforts to achieve this optimum construction revealed a serious problem: although the fine cuts produced an overall rhythm that worked well, the pace of the film was too rapid. Repeated viewings confirmed the fact that the sequence of actions moved too rapidly for easy comprehension in one showing. Experimentation produced a simple but effective solution--a change of projection speed.

The desired pace was obtained when the film was projected at sixteen rather than twenty-four frames-per-second (i.e., at silent rather than sound speed). This solution offers the advantage of requiring no changes in the preferred final form of the film. It is technically acceptable because classroom projectors are equipped to run at both speeds and because the movement within the film is such that, although photographed at twenty-four frames-per-second, it does not appear slowed or unnatural when seen at sixteen. Accordingly, this solution was adopted.

In its final version, The Television Switching Panel is 389 feet long. At silent speed, one showing takes 16 1/4 minutes.

Continuity in Cutting involved the most complex editing and the most extensive revision. It had been recognized before production began that this film could take form only through editing,[31] and in spite of the fact that the scenario and shooting script were carefully constructed and were made as explicit as possible, much work remained to be done.

The revised first assembly immediately revealed a superfluity of shots in almost every scene, with the result that the film was too long and was lacking in directness and impact. The attempts to illustrate each principle comprehensively had resulted in illustrations that were too comprehensive: each suffered from visual over-explicitness.

There was no fault in the overall structure of the film, but each scene required experimental editing to determine the minimum number of shots required to vividly illustrate its guiding principle. Conse-

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[31]See Chapter III, pp. 40-41.

quently, the rough cut was much more involved and proceeded at a slower rate than was the case with either of the other films.

Only one illustration was eliminated completely, that of cutting between a man and a globe on a stand to show that displacement could occur between similarly shaped subjects (scene 14; shots 41-47). When viewed, it was evident that the point here was extrinsic in that the techniques of joining two such shots correctly--techniques involving methods of differentiating the subjects while relating them smoothly--lay outside the content specified for the film. Eliminating this illustration removed a divergence in the development of the subject matter.

Every other scene in the film underwent revisions which discarded many shots and rearranged those which remained. In all cases these changes increased the economy of expression and resulted in more direct and vivid statements of the content. A discussion here of the individual excisions and rearrangements could only amount to a listing of shot numbers; the changes in the film are clearly evident when a detailed comparison of the editing notes and shooting script is made.

One important change occurred after the illustrations had been edited into final form. The scenario called for the appropriate symbol to be used as an illustrative device at the beginning of each section to help structure audience interpretation of the examples. However, the editing changes and the commentary had improved the directness and clarity of the examples to the point where this use of the symbols was no longer necessary. On the other hand, the symbols were valuable still as objectifications of each principle and as mnemonic devices. An experiment in eliminating them altogether greatly weakened the film.

Further experimentation finally determined the most effective arrangement: a single shot of each symbol is used with the title introducing each section; the sequences using the symbols to illustrate the principles are placed at the ends of the individual sections for recapitulation; the introduction of the symbols at the beginning of the film is reduced to a single shot; and their use in the summary is simplified.

Although many shots were discarded, it must be stressed that the most effective editing could be achieved only through extensive experimentation. An abundance of material was prerequisite to editing freedom and creativity.

The final version of Continuity in Cutting is 447 feet long; presentation time at sound speed is 12 1/2 minutes.

The editing of Potentialities of Movement took the least amount of time and consisted of inserting some extra detail shots in the illustrative cutting sequences (scenes 4 and 7) and of eliminating the "bad" example of the children's program opening. This latter cut also removed the animated diagrams and the shots of details of set changes (shots 22-25).

The extra detail shots were added to scenes 4 and 7 to improve their continuity and to heighten their contrast with scenes 5 and 9.

The "Land of Play" "wrong" opening (scene 12) was seen to not add any appreciable information to the film: both the "wrong" and the "right" examples used movement, and although the diagrams helped to emphasize the differences between the two, the point was not important enough to justify the time required to show it. The clarity of this section was improved by presenting the "right" treatment alone.[32]

[32]The "wrong-right" presentation of the dramatic vignette was retained because the contrast is between cutting and movement and it makes a different point from the contrast between two kinds of movement.

Deleting scene 12 immediately eliminated the need for the "wrong" animated diagram and for the detail shots of set changes. The "right" diagram now served no purpose except to show the movement of the "right" opening. Inasmuch as this movement was directly experienced when the example was viewed, the diagram added little to an appreciation of the situation. Accordingly, this too was deleted..

The summary section was rearranged so that the principles are recapitulated in an order that moves from basic to more complex considerations. Thus, the progressive nature of developing an effective treatment in movement is better implied.

Finally, brief pauses between the various sections were created by the insertion of black to help signal each major change of thought in the content.

Potentialities of Movement is 514 feet long and runs 14 1/2 minutes at sound speed.

Altogether, about two-and-one-half times as much film was exposed was was used in the final versions of the films. The discarded material included the deletions described above, all unusable takes, test shots and miscellaneous footage given over to leaders* and slates.

## Commentaries

The narration written for the scenarios was intended only as a suggestion of the spoken accompaniment to the films; in terms of the completed presentations, it was quite diffuse.

The final commentaries, which replaced the scenario narrations, were created as the visual and spoken presentations were adjusted to one another in the course of succeeding fine cuts--writing and editing

flowed one from the other. Major revisions occurred wherever visual material was eliminated or significantly rearranged. Equally important changes were made to increase the specificity of the spoken presentation.

Building from the ideas in the scenario narration, the writing adjusted word choice and sentence construction so that pictorial content is exactly referred to and so that there is no divergence in thought from the point being illustrated by a sequence. Divergences of this kind are evident in the scenarios.

In most cases, the writing chose the most economical way to express each idea or principle in order to focus attention continually on the visual presentation. Occasionally the strictest economy is sacrificed to the need for amplifying statements or important comments on sidelights of the situation. The commentary accompanying each scene is generally shorter than the visual length of the scene as a result of concise wording. This brevity has the additional advantage of allowing the instructor to interpolate his own comments without having to completely rewrite the commentary.

A comparison of scenarios and commentaries with shooting scripts and editing notes in the appendixes will reveal the nature of the changes in emphasis and expression. The function and effectiveness of the commentaries can only be judged from a presentation of the films.

# CHAPTER V

## THE USES OF THE FILMS

Three films--The Television Switching Panel, Continuity in Cutting and Potentialities of Movement--have been produced for use as teaching aids in the television production courses offered by Michigan State University. Final edited workprints and negatives of these films have been deposited with the Television, Radio and Film Department. It is recommended that timed prints* be made from the negatives, to be used in the following ways:[33]

1. The films should be integrated into the courses to relieve problems of in-studio instruction. At the discretion of the instructors they may be used to supplement or to replace studio presentations of these subjects.
2. Additional commentaries should be created so that the films may be used with their appropriate secondary audiences.
3. An experimental program should be carried out to evaluate the above uses of the films. The program should determine whether studio class problems are lessened when the films are used and whether the films offer instruction in these subjects at least equal to in-studio instruction.
4. Sound tracks may be added to the films inexpensively by means of the "sound-stripe"* process. It is recommended that this

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[33]Although the workprints may be used, they show exposure variations between scenes, they have been scratched and marked in editing, and they have many splices--a condition which may cause eventual projection difficulties.

be done and that copies of the film be made available to the classes for independent study.[34]

5. If (4) is carried out, an experimental program should determine whether students can give themselves effective instruction in these subjects by studying the films outside of class. If they can, an investigation should be undertaken immediately to uncover other subjects that might be treated similarly. In this way the content of the course might be considerably expanded or eventual large increases in enrollment might be easily absorbed into the existing course structure.
6. Creative experiments may be carried out to determine whether the effectiveness of the films can be improved by (a) changed commentaries, (b) changed editing of the existing material, (c) a combination of (a) and (b).

If the films prove to be of value as teaching aids, this thesis should be used as a guide to the selection and production of additional films for use in teaching television production techniques at Michigan State University. Furthermore, this thesis and a report describing the methods of integrating the films into the curriculum and using them effectively may assist other schools and colleges in solving similar instructional problems.

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[34]Perhaps in much the same manner that students of foreign languages have access to prepared tape recordings for study and practice.

# APPENDIX A

## The Television Switching Panel

TREATMENT: The Television Switching Panel

This will be a skills film showing the operation of the switching panel. It will be designed for use in place of control instruction regarding the panel. The content will include:

1. Layout and nomenclature--banks, busses; Take bank; Effects banks A and B; Effects button; fader handles; indicator lights.
2. Purpose of the controls--to create instantaneous or gradual change of one picture (fades) or between two pictures (cuts, dissolves, supers).
3. Operation of the controls and the effects created--"take" (cut); fade out; fade in; dissolve; superimposure.

Action at the panel will be photographed from the operator's poing of view so that the student can project himself into the situation easily. Panel operations will be illustrated by changes in shots of various example scenes. In addition to the panel, the equipment shown will include studio cameras, film and slide projection facilities and, perhaps, camera and line monitors.

In general, the film will proceed thus:

1. The panel. Names of busses. Relation of buttons to video chains: 1-6 studio cameras; 7 film chain; 8 slide chain; 9 spare, remote, network, "black."
2. Operation of the Take bank. Cutting between pictures: firm push on button; immediate release; indicator lights.
3. The Effects banks. Arrangement. Effects button. Fader handles: set in opposition for 100% video (70-30; 50-50; etc.) Operation: fade out; fade in; dissolve; superimposure.

4. Review.

The photography and editing will show the physical actions of panel operations and the resulting video changes to have a cause-effect relationship.

SCENARIO: The Television Switching Panel

| Scene Number and Description | Narration |
|---|---|
| 1. FADE IN--MS--Man demonstrating with object. | To change from shot to shot. . . |
| 2. CUT TO--CU--Demonstration object--FADE OUT. | |
| 3. FADE IN--MS--Demonstration (as 1)--DISSOLVE TO--CU--Demonstration object (as 2). | . . .you must be able to operate. . . |
| 4. TITLE--The Television Switching Panel. | . . .the Television Switching Panel. |
| 5. MCU--Panel. | The various camera chains are connected to pushbutton switches mounted on the panel. The switches are mounted in horizontal rows called banks or busses. |
| 6. PANEL--closer shot. | This is a three-bus switching panel. Other panels may have only one or two busses; some have five or more. The top bus is called the . . . |
| POP ON LABEL--Take. | . . ."take" bus. The lower two busses are called. . . |
| POP ON LABELS--Effects; A; B. | . . .the "effects" busses. They are individually called the "A" bus and the "B" bus. In each bus, every pushbutton has a numbered indicator light. The numbers correspond to the video chains. 1 through 6 are studio camera chains. |

7. MONTAGE--Studio cameras with numbers clearly visible.

8. PANEL.

7 and 8 are connected to projection room video chains.

9. PROJECTION ROOM--MS--projector, vidicon side.

Chain 7 is a vidicon chain into which two film projectors and two slide projectors feed. It is most often referred to as the "film chain."

10. PROJECTION ROOM--MS--slide projectors, iconoscope side.

Chain 8 is an iconoscope chain receiving feeds from slide projectors. It is known as the "slide chain."

11. CU--Panel with LABEL at 9--Spare.

Switch 9 is a spare for patching in extra equipment or the feed from the mobile unit or from a network line. When it has no signal connected, it is used for "black."

FADE OUT

12. CUT TO--MS--Camera 4--PAN to see MS of man demonstrating with object (as in scene 1).

To understand the operation of the panel, we need some pictures. Camera 4 has a medium shot of this demonstration. . .

13. MS--Camera 5--PAN to see CU of demonstration object (as scene 2).

. . .camera 5 has a close-up.

14. PANEL.

The take bus provides for cutting to a picture, or "taking" it. Starting with no picture, punching button 4. . .

PUSH t4.[35]

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[35]Buttons are identified by bus letter and button number; thus, t4 is #4 button in the Take bus.

. . . creates a cut to the shot camera 4 is taking.

15. DEMONSTRATION--MS--(4's shot).

16. PANEL.

When a switch is on, the indicator light is on as a reminder. To cut to 5, push button 5 in the take bus. . .

PUSH t5.

. . .the light goes on, and the audience sees:

17. DEMONSTRATION--MS (4's shot)--CUT TO--CU of demonstration object (5's shot).

18. PANEL--PUSH t5--PUSH t4--in succession.

Cutting or "taking" between cameras is merely a matter of pushing the appropriate button.

19. DEMONSTRATION--CU (5's shot)--CUT TO--MS (4's shot)--CUT TO--(5's shot)--CUT TO--(4's shot).

20. MS--Camera 3--PAN to see <u>test pattern</u> it is focused on.

You can cut to any camera in the station. You must check the panel before you push a button, or you can get the wrong picture--a camera being lined up by the engineers in another studio, for instance.

21. PANEL--PUSH t3 and HOLD DOWN.

22. DEMONSTRATION--MS (4's shot)--CUT TO--CU--test pattern (3's shot).

23. PANEL--hand HOLDING DOWN t3 (21 continued).

When you push a button, you must immediately release it or the indicator light will not go on. The cut occurs when the button goes down, but only when you release the button. . .

24. Hand RELEASES t3 (23 continued).

. . . does the light come on. Sitting at the panel holding down a button can confuse you because no lights will be on.

25. Hand PUSHES t4--PUSHES t5--with firm movements--then MOVES OUT of frame (24 continued).

Press firmly, then release.

Hand MOVES into frame.

Obviously, just as you can cut from camera to camera . . . In succession, PUSH t1, t2, t3, t4, t5, t6.

26. Montage--1's shot--2's shot--3's shot (test pattern)--4's shot (MS of demonstration)--5's shot (CU of demonstration object)--6's shot.

27. PANEL--PUSH t7.

. . . so you can cut to the film chain . . .

28. FILM CLIP (miscellaneous).

29. PANEL--PUSH t8.

. . . and to the slide chain . . .

30. SLIDE (miscellaneous).

31. PANEL--PUSH t9.

. . . and to black.

32. CUT TO BLACK.

33. PANEL--MS--Effects busses MASKED OFF.

The first switching panels consisted of only one bus, for cutting from chain to chain. In order to accomplish effects such as fade-in's, fade-out's, dissolves and superimposures, the panel was expanded.

Mask MOVES to reveal effects button with LABEL: Effects.

A switch was added to the take bus--the "effects" switch. It is connected to the output of the effects busses.

Mask MOVES out of frame, revealing effects busses with ARROWS from a9 and b9 to effects button (tE).

Pushing the effects button cuts to the A and B busses . . .

PUSH tE.

. . .pushing any other button in the take bus cuts away from the effects busses.

PUSH t4.

The heart of the effects busses is the set of handles at the right.

34. CU--Fader handles with Fade-in ARROWS and with LABEL: Fader handles.

These are the fader handles or the dissolve levers. They are like audio pots or volume controls in that they provide varying signal strengths. However, they control video rather than audio signals. The handles are set in opposition to one another so that when one is all the way on, the other is all the way off.

MOVE handles from A to B.

The fade-in labels beside each handle are like arrows: the words are the feathers, the lines are shafts pointing to the full on position for that handle.

MOVE handles from B to A.

To use the faders, first cut to effects:

35. PANEL--PUSH tE.

You must have a picture to work with in the effects busses:

PUSH a5--PUSH b9--MOVE handles A to B.

Now, with 5 up, moving the handles away from A bus fades out the picture . . .

36. CU Demonstration object (5's shot)--FADE OUT.

37. PANEL.

. . . nothing fades in on B because 9 has no signal--it is black. Moving the handles back to A . . .

MOVE handles B to A.

38. CU Demonstration object (5's shot)--FADE IN.

. . . fades in the camera that is punched up in the A bus. The B bus works in the same way, though the fader handle moves in the opposite direction.

39. PANEL--PUSH a9--PUSH b4.

Now there is no picture in A, and 4 is punched up, waiting, in B. Moving the handles to B will fade in 4's shot . . .

40. PANEL--MOVE handles A to B.

41. MS Demonstration (4's shot)--FADE IN.

. . . moving away from B will fade it out again.

42. PANEL--MOVE handles B to A.

43. MS Demonstration (4's shot)--FADE OUT.

44. PANEL--PUSH a5.

Obviously, if you have a camera punched up in each bank, moving the faders from one bank to the other will fade out one picture . . .

45. PANEL--MOVE handles 1/3 A to B.

46. CU Demonstration object (5's shot)--FADE OUT about 1/3.

47. MS Demonstration (4's shot)--FADE IN about 1/3.

. . . while the other picture is fading in at the same time.

48. PANEL (45 continued)--MOVE handles from 1/3 to B.

49. CU Demonstration object (5's shot) (46 continued)--FADE OUT from 1/3.

50. MS Demonstration (4's shot) (47 continued)--FADE IN from 1/3.

51. PANEL--MOVE handles to A.

Of course, the audience sees the simultaneous fade-out and fade-in on the screen all at once--what they see is .....

MOVE handles A to B.

52. CU Demonstration object (5's shot)--DISSOLVE TO--MS Demonstration (4's shot).

. . . a dissolve.

53. PANEL--PUSH a3.

When you dissolve, you must watch to see not only what camera is punched up in the bus where your levers are, but what is punched up in the bus where your levers are going:

MOVE handles B to A.

54. MS Demonstration (4's shot)--DISSOLVE TO--TEST PATTERN (3's shot).

55. PANEL.

Wherever your levers are, you can cut from camera to camera just by pushing buttons:

PUSH a4--PUSH a5.

56. TEST PATTERN (3's shot)--CUT TO--MS Demonstration (4's shot)--CUT TO--CU Demonstration object (5's shot).

57. PANEL.

Dissolving requires that you set up a camera in the other bus and move the faders.

PUSH b8--MOVE handles A to B.

58. CU Demonstration object (5's shot)--DISSOLVE TO--SLIDE (miscellaneous).

59. PANEL--PUSH a9.

Dissolving to an empty chain dissolves to black--a fade out.

MOVE handles B to A.

60. SLIDE (miscellaneous)--FADE OUT.

61. PANEL--PUSH a4.

When you superimpose one picture on another it becomes obvious why the fader handles work in opposite directions. There must be 100% of picture signal sent out. At the full on position, 100% does get sent out.

MOVE handles 1/3 A to B.

Moving the handles together . . . as the A bus goes 1/3 off, the B bus comes on 1/3 to maintain a full 100% of picture signal--two pictures, of course, but a full signal of the mixture.

MOVE handles from 1/3 to 1/2.

At the halfway point the mixture between the two pictures is 50-50 to give the necessary 100%. And, visually, a dissolve halted halfway . . .

62. SUPERIMPOSURE: SLIDE (miscellaneous)--OVER--MS Demonstration (4's shot).

. . . is a superimposure. Generally it is easiest to super

white letters on a black background over another shot. The letters may be from a slide, or from a card or roll drum in the studio.

63. PANEL--MOVE handles B to A.

Reversing the dissolve fades the super out:

64. SUPERIMPOSURE: SLIDE (miscellaneous)--OVER--MS Demonstration (4's shot)--FADE OUT SLIDE.

65. PANEL.

The commands from the director are, "Super!"--you move the handles halfway . . .

MOVE handles 1/2 A to B.

66. MS Demonstration (4's shot)--FADE IN SUPERIMPOSURE--SLIDE (miscellaneous).

67. PANEL. (65 continued).

. . . and "Lose the super!"--you reverse the move to come out full on the background shot.

MOVE handles 1/2 to A.

68. SUPERIMPOSURE: SLIDE (miscellaneous)--OVER--MS Demonstration (4's shot)--FADE OUT SLIDE.

69. PANEL--MOVE handles 1/2 A to B.

When you are in a super, a fade to black is achieved by splitting the handles so that each moves to its own off position.

SPLIT handles, MOVE each to <u>off</u>.

This way, both pictures fade out simultaneously.

70. SUPERIMPOSURE: SLIDE (miscellaneous)--OVER--MS Demonstration (4's shot)--FADE OUT.

71. FADE IN--MCU--Panel.

A review of the operation of the switching panel will help you to remember these points: Pushbutton switches connected to the video chains are arranged in horizontal rows called banks or busses. This is a three-bus switching panel.

72. TITLE: Take.

The take bus gives its name to the operation of cutting from one camera to another.

73. PANEL--in succession PUSH t1; t2; t3; t4; t5; t6.

Pushing a button in the take bus accomplishes the cut.

74. MONTAGE--1's shot--2's shot--3's shot (test pattern)--4's shot (MS of demonstration)--5's shot (CU of demonstration object)--6's shot.

75. TITLE: Effects.

The effects busses, A and B, allow you to make fades, dissolves and superimposures.

76. PANEL--PUSH t3.

First, cut to the effects busses by pushing the effects button. This cuts to whatever has been set up below.

PUSH a4--PUSH tE.

77. TEST PATTERN (3's shot)--CUT TO--MS Demonstration (4's shot).

The fader handles work in opposite directions. Moving from one bus to the other--with a picture in each . . .

78. PANEL--PUSH b7--MOVE handles A to B.

79. MS Demonstration (4's shot)--DISSOLVE TO--TITLE: Dissolve.

. . . creates a dissolve. Dissolving to an empty chain creates a fade out.

80. PANEL--PUSH b4--PUSH a9--MOVE handles B to A.

81. MS Demonstration (4's shot)--FADE OUT.

82. TITLE: Superimposure.

A super is a dissolve halted halfway:

FADE IN under title--MS Demonstration (4's shot) for SUPERIMPOSURE.

83. PANEL--handles AT 1/2.

Coming out of a super is a matter of completing the dissolve so that you get the desired picture--usually the background--full strength while the letters or other super material fade out.

MOVE handles from 1/2 to B.

84. SUPERIMPOSURE: TITLE Superimposure--OVER--MS Demonstration (4's shot)--FADE OUT TITLE.

85. PANEL--MOVE handles B to 1/2.

Going to black from a super could be accomplished with a cut to an empty chain:

Hand POINTS to a9.

A fade out from a super requires you to move each fader handle to off.

SPLIT handles, MOVE each to off.

86. SUPERIMPOSURE: TITLE The End--OVER--MS Demonstration (4's shot)--FADE OUT.

SHOOTING SCRIPT: The Television Switching Panel

| Scene Number | Shot Number | Description |
|---|---|---|
| 1. | 1. | FADE IN--MS--Man demonstrating with clock on pedestal. |
| 2. | 2. | CU--Clock on pedestal, man's hands demonstrating--FADE OUT. |
| 3. | 3. | FADE IN--MS--Demonstration (as 1)--DISSOLVE TO |
| | 3a. | CU--Clock (as 2). |
| 4. | 4. | TITLE: The Television Switching Panel. |
| 5. | 5. | MS--Panel, from angle--no lights on. |
| 6. | 6. | CS--Panel from operator's position; no lights on. |
| | 6a. | POP ON LABEL: Take at take bus. |
| | 6b. | POP ON LABELS: Effects; A; B; at effects busses. |
| 7. | 7. | MS--Exterior of Camera 1. |
| | 8. | MS--Exterior of Camera 2. |
| | 9. | MS--Exterior of Camera 3. |
| | 10. | MS--Exterior of Camera 4. |
| | 11. | MS--Exterior of Camera 5. |
| | 12. | MS--Exterior of Camera 6. |
| 8. | 13. | CS--Panel from operator's position; no lights (as 6). |
| 9. | 14. | PROJECTION ROOM--MS--Film projector--PAN TO slide projectors. |
| 10. | 15. | PROJECTION ROOM--MS--Iconoscope slide projectors. |
| 11. | 16. | PANEL--CU--#9 buttons with LABEL: Spare. |
| 12. | 17. | MS--Side of Camera 4--PAN TO SEE Man demonstrating (as 1). |
| 13. | 18. | CS--Side of Camera 5--PAN TO SEE CU of clock (as 2). |
| 14. | 19. | PANEL--CS from operator's position; no lights (as 6)--PUSH t4. |
| 15. | 20. | MS--Man demonstrating (as 1). |

16. 21. PANEL--CS (as 6)--light on t4--PUSH t5.

17. 22. MS--Man demonstrating (as 1).

23. CU--Clock (as 2).

18. 24. PANEL--CS (as 6)--light on t5--PUSH t4--PUSH t5--PUSH t4.

19. 25. CU--Clock (as 2).

26. MS--Man demonstrating (as 1).

27. CU--Clock (as 2).

28. MS--Man demonstrating (as 1).

20. 29. MS--Camera 3 from angle to include Test Pattern it is shooting.

21. 30. PANEL--CS (as 6)--light on t4--PUSH t3 and HOLD DOWN.

22. 31. MS--Man demonstrating (as 1).

32. CU--Test pattern.

23. 30a. (continuation) Hand HOLDING t3.

24. 30b. (continuation) Hand RELEASES t3.

25. 30c. (continuation) PUSH t4--PUSH t5--firmly--Hand MOVES OUT. Then--Hand MOVES IN--PUSH t1--PUSH t2--PUSH t3--PUSH t4--PUSH t5--PUSH t6.

26. 33. WILD SHOT* as if Camera 1's shot.

34. WILD SHOT as if Camera 2's shot.

35. CU--Test pattern (as 32).

36. MS--Man demonstrating (as 1).

37. CU--Clock (as 2)

38. WILD SHOT as if Camera 6's shot.

27. 39. PANEL--CS (as 6)--light on t6--PUSH t7.

28. 40. FILM CLIP--WILD--as if on projector.

29. 41. PANEL--CS (as 6)--light on t7--PUSH t8.

30. 42. CU--Station identification slide.

31. 43. PANEL--CS (as 6)--(light on t8)--PUSH t9.

32. 44. BLACK--insert slug.*

33. 45. PANEL--CS (as 6)--no lights on--MASK COVERING effects button and banks. MASK MOVES to REVEAL effects button with LABEL: Effects--PAUSE--MASK MOVES to REVEAL effects banks with ARROWS from a9 and b9 to tE--Handles at A. PAUSE. Hand MOVES IN--PUSH tE--PAUSE--PUSH t4.

34. 46. PANEL--CU--fader handles with LABEL: Fader Handles and with ARROWS: Fade in A; Fade in B. PAUSE. Hand MOVES IN--MOVE handles A to B--PAUSE--MOVE handles B to A.

35. 47. PANEL--CS (as 6)--light on t4; handles at A with arrows--PUSH tE--PUSH a5--PUSH b9--MOVE handles A to B.

36. 48. CU--Clock (as 2)--FADE OUT.

37. 49. PANEL--CS (as 6)--lights on tE, a5, b9; handles at B with arrows--MOVE handles B to A.

38. 50. FADE IN--CU--Clock (as 2).

39. 51. PANEL--CS (as 6)--lights on tE, a5, b9; handles at A with arrows--PUSH a9--PUSH b4.

40. 51a. (continuation) MOVE handles A to B.

41. 52. FADE IN--MS--Man demonstrating (as 1).

42. 53. PANEL--CS (as 6)--lights on tE, a9, b4; handles at B with arrows--MOVE handles B to A.

43. 54. MS--Man demonstrating (as 1)--FADE OUT.

44. 55. PANEL--CS (as 6)--lights on tE, a9, b4; handles at A with arrows--PUSH a5.

45. 55a. (continuation) MOVE handles 1/3 A to B.

46. 56. CU--Clock (as 2)--START FADE OUT (about 1/3).

47. 57. START FADE IN (about 1/3)--MS--Man demonstrating (as 1).

48. 55b. (continuation) MOVE handles from 1/3 to B.

49. 56a. (continuation) COMPLETE FADE OUT of CU--Clock (as 2).

50. 57a. (continuation) COMPLETE FADE IN of MS--Man demonstrating (as 1).

51. 58. PANEL--CS (as 6)--lights on tE, a5, b4; handles at B with arrows--MOVE (RESET) Handles B to A--MOVE handles A to B.

52. 59. CU--Clock (as 2)--DISSOLVE TO

59a. MS--Man demonstrating (as 1).

53. 60. PANEL--CS (as 6)--lights on tE, a5, b4; handles at B with arrows--PUSH a3--MOVE handles B to A.

54. 61. MS--Man demonstrating (as 1)--DISSOLVE TO

61a. CU--Test pattern (as 32).

55. 62. PANEL--CS (as 6)--lights on tE, a3, b4; handles at A with arrows--PUSH a4--PUSH a5.

56. 63. CU--Test pattern (as 32).

64. MS--Man demonstrating (as 1).

65. CU--Clock (as 2).

57. 66. PANEL--CS (as 6)--lights on tE, a5, b4; handles at A with arrows--PUSH b8--MOVE handles A to B.

58. 67. CU--Clock (as 2)--DISSOLVE TO

67a. CU--Station ID slide (as 42).

59. 68. PANEL--CS (as 6)--lights on tE, a5, b8; handles at B with arrows--PUSH a9--MOVE handles B to A.

60. 69. CU--Station ID slide (as 42)--FADE OUT.

61. 70. PANEL--CS (as 6) lights on tE, a9, b8; handles at A with arrows--PUSH a4--PAUSE--MOVE handles 1/3 A to B--PAUSE--MOVE handles from 1/3 to 1/2.

62. 71. SUPERIMPOSURE of CU--Station ID slide (as 42)--OVER--MS--Man demonstrating (as 1).

63. 72. PANEL--CS (as 6)--lights on tE, a4, b8; handles at 1/2 with arrows--MOVE handles from 1/2 to A.

64. 73. SUPERIMPOSURE of CU--Station ID card (as 42)--OVER--MS--Man demonstrating (as 1)--FADE OUT SLIDE.

65. 74. PANEL--CS (as 6)--lights on tE, a4, b8; handles at A with arrows--MOVE handles 1/2 A to B.

66. 75. MS--Man demonstrating (as 1)--FADE IN SUPERIMPOSURE--CU--Station ID slide (as 42).

67. 76. PANEL (repeat of 72).

68. 77. SUPERIMPOSURE (repeat of 73).

69. 78. PANEL--CS (as 6)--lights on tE, a4, b8; handles at A with arrows--MOVE handles 1/2 A to B--PAUSE--SPLIT handles to <u>off</u> positions.

70. 79. SUPERIMPOSURE of CU--Station ID slide (as 42)--OVER--MS--Man demonstrating (as 1)--FADE OUT.

71. 80. FADE IN--PANEL--CS (as in 6)--no lights on; handles at A.

72. 81. TITLE: <u>Take</u>.

73. 82. PANEL--CS (as 6)--no lights on--PUSH t1--PUSH t2--PUSH t3--PUSH t4--PUSH t5--PUSH t6.

74. 83. WILD SHOT (repeat 33).

84. WILD SHOT (repeat 34).

85. CU--Test pattern (as 32).

86. MS--Man demonstrating (as 1).

87. CU--Clock (as 2).

88. WILD SHOT (repeat 38).

75. 89. TITLE: Effects.

76. 90. PANEL--CS (as 6)--light on t6--PUSH t3--PAUSE--PUSH a4--PUSH tE.

77. 91. CU--Test pattern (as 32).

92. MS--Man demonstrating (as 1).

78. 93. PANEL--CS (as 6)--lights on tE, a4; handles at A--PUSH b7--MOVE handles A to B.

79. 94. MS--Man demonstrating (as 1)--DISSOLVE TO

94a. TITLE: Dissolve.

80. 95. PANEL--Cs (as 6)--lights on tE, a4, b7; handles at B--Push b4--PUSH a9--MOVE handles B to A.

81. 96. MS--Man demonstrating (as 1)--FADE OUT.

82. 97. TITLE: Superimposure--FADE IN SUPERIMPOSURE OF:

97a. MS--Man demonstrating (as 1).

83. 98. PANEL--CS (as 6)--lights on tE, a8, b4; handles at 1/2--MOVE handles from 1/2 to B.

84. 99. SUPERIMPOSURE of TITLE: Superimposure--OVER--MS--Man demonstrating (as 1)--FADE OUT TITLE.

85. 100. PANEL--CS (as 6)--lights on tE, a8, b4; handles at B--MOVE handles from B to 1/2--PAUSE--Hand POINTS to a9--PAUSE--SPLIT handles to off positions.

86. 101. SUPERIMPOSURE of TITLE: The End--OVER--MS--Man demonstrating (as 1)--FADE OUT.

EDITING NOTES: The Television Switching Panel

(These notes show the construction and sequence of the final edited version of the film.)

Shots

1-16 no changes (other than shot length)

insert 2 seconds of black

17 no change

insert 17a: MS of man demonstrating with clock

18 no change

insert 18a: CU of clock in demonstration

insert 2 seconds of black

19-28 no changes

insert 2 seconds of black

29 no change

30 cut at second edge # plus 6 frames

31-32 no changes

insert remainder of 30 (portion after 2nd # plus 6 frames) for timing, then continue with 30 a, b, c.

33-38 cut to 1 second each; trim in from head of 35, back from tail of 36 to retain kinescoped cut between shots (so action will match)

39 no change

40 use clip of car moving (extra take) from Continuity in Cutting

41-44 no changes

45 cut after hand pushes tE (eliminating pushing t4)

insert 45a: CU of labeled effects button with arrows from a9 and b9

46 use take #2 with several repetitions of handle movement

Shots

47-59 no changes

join 60 and 62; 61 out

63-69 no changes

70 out

insert 70a: angle shot of busses, push a4, pan to fader handles; join to 70b: CU handles

71-82 no changes

83-88 see notes for 33-38

insert 2 seconds of black

89-97 no changes

insert 98a: CU of fader handles at 1/2

98-101 no changes

COMMENTARY: The Television Switching Panel

| Picture | Narration |
|---|---|
| MAN WITH CLOCK--cut, fades, dissolve | To change from shot to shot, you must be able to operate . . . |
| TITLE | . . . the Television Switching Panel. |
| PANEL from angle | A panel consists of pushbutton switches connected to the camera, or video, chains. Each horizontal row of buttons is called a bank or a bus. |
| PANEL from operator's position | This is a three-bus switching panel. |
| Take LABEL | The top bus is the Take bus . . . |
| Effects, A, B LABELS | . . . the lower two are the Effects busses--A and B. Each bus has one button from every video chain. Numbered indicator lights identify the chains. |
| CAMERAS 1-6 | 1 through 6 are the studio cameras . . . |
| PANEL | . . . 7 and 8 are projection room chains; |
| FILM PROJECTOR pan to SLIDE PROJECTOR | 7 is a vidicon camera for film and slides--the film chain; |
| SLIDE PROJECTOR at iconoscope | 8 is an iconoscope camera for other slide projectors--the slide chain. |
| 9 BUTTONS with Spare LABEL | 9 is a spare switch. It can be connected to other equipment--a remote feed, or a network line. |
| (9 buttons) | When no signal is connected to it, 9 is used for |
| BLACK | . . . black. |

| Picture | Narration |
| --- | --- |
| CAMERA 4 | To see the panel operate we need some example shots. Camera 4 has a medium shot of this demon- |
| MS Demonstration | stration . . . |
| CAMERA 5 | . . . Camera 5 has a close-up. |
| CU Clock | |
| PANEL<br>push t4 | The Take bus is used for "taking" or cutting to a picture. Starting with no picture, pushing button 4 creates a cut to camera 4's shot. |
| MS Demonstration | |
| PANEL<br>push t5 | The indicator light shows that 4 is on. To cut from 4 to 5, push 5's button in the Take bus. The lights change . . . |
| MS cuts to<br>CU CLOCK | . . . and the pictures change. |
| PANEL<br>push between<br>4 and 5 | Cutting between shots is simply a matter of push- ing the proper buttons. |
| Cuts between MS<br>and Clock | |
| CAMERA 3 & TP | Because you can cut to any camera in the sta- tion, you must check before pushing a button-- you might get a camera being lined up in another studio. |
| PANEL, push t3 | |
| MS, cut to TP | |
| PANEL, hand on t3 | Whenever you push a button, release it immedi- ately. The cut occurs when the button goes down, |

(Hand on t3)

but the indicator light comes on only when the button is released.

Hand releases t3 then pushes 4--5

Press firmly . . . and release.

Push 1, 2, 3, 4, 5, 6

Just as you can cut to any camera . . .

SIX SHOTS

PANEL push t7

. . . so you can cut to the film chain . . .

CAR

PANEL push t8

. . . to the slide chain . . .

STATION ID slide

PANEL push t9

. . . and to black.

BLACK

PANEL with mask over effects busses

A single bus allows you only to cut between shots. To create fades, dissolves and superimposures we need more busses.

Mask moves to show Effects LABEL

An extra switch, the Effects button, is used to activate the . . .

Mask moves to show effects busses

. . . effects busses, A and B.

CU effects button and handles

These busses feed directly into the effect button. The handles are fader handles or dissolve levers.

LABELS on handles

Each handle controls one bus. It turns that bus on and off gradually, much as an audio pot controls volume. The two handles move in opposite directions.

Handles are moved several times

The fade-in labels are like arrows: the words are the feathers, the lines are shafts pointing to the

on position for each handle. The handles work in opposition so that as one comes on, the other goes off.

PANEL push tE, a5, b9

To create effects, first cut to the effects busses. Of course we need pictures--camera 5's closeup in A, 9 or black in B.

Handles A to B

Clock

FADES OUT

Moving the handles away from A fades out the picture there . . .

. . . nothing comes in from B because we punched black.

PANEL, handles move B to A

Moving the handles toward A fades in the camera punched up there.

FADE IN Clock

PANEL push a9, b4

Handles A to B

The B bus works the same way: 9 gives us nothing in A; 4 is punched up, waiting in B. Moving the handles to B fades in 4's picture.

FADE IN Demonstration

PANEL, handles move B to A

Moving them away fades it out.

Demonstration FADES OUT

PANEL, push a5

Handles move 1/3 toward B

If you have a picture in each bus--5 in A and 4 in B--moving the handles will . . .

Demonstration FADES SLIGHTLY

. . . fade out one picture . . .

Clock FADES IN SLIGHTLY

. . . and fade in the other.

PANEL handles move to B

Demonstration FADES OUT

Clock FADES IN

PANEL, reset handles then move A to B

Demonstration DISSOLVES TO Clock

PANEL, push a3, reset handles to A, push a4, a5

TP, CUT TO Demonstration, CUT TO Clock

PANEL, push b8

Handles move A to B

Clock DISSOLVES TO ID slide

PANEL, push a9 move handles B to A

Slide FADES OUT

PANEL

Handles move 1/3

Handles move to 1/2

On the air this is seen all at once . . . . . a dissolve.

Of course you can cut in whatever bus is on the air--A for instance. You don't have to use the take bus.

Then, when you want to dissolve--to a slide, for instance--punch it up in the other bus and move the handles.

For a fade out, punch up the empty line and . . . . . dissolve to black.

The fader handles move in opposite directions so that a full strength signal is always sent out. In this position the signal is 100% from A. As A bus goes off 30%, B comes on 30%--the two pictures are in a 70-30 mixture to give 100% signal strength. At the halfway point, the mixture is 50-50. Visually, a dissolve stopped in the middle like this is a . . .

SUPER: ID over Demonstration

. . . superimposure. Usually a super puts white letters over a background shot. The letters may come from a slide, a card, a roll drum or any similar source.

PANEL move handles to A

Moving the handles toward the background shot fades the supered material out.

SUPER--ID fades out

PANEL move handles to 1/2

Dissolving halfway brings a super in smoothly . . .

Demonstration, SUPER ID

PANEL move handles to A

. . . reversing the move to come out full on the background fades it out.

SUPER--ID fades out

PANEL, handles at 1/2

From the middle of a super you can fade to black by moving each handle to its own <u>off</u> position. This is called splitting the handles; it fades out each bus.

Handles split

SUPER: ID and Demonstration FADES TO BLACK

PANEL

In review, remember these points: The switching panel has pushbutton switches connected to the video chains. Each horizontal row is a bus.

TITLE: <u>Take</u>

The top, <u>take</u>, bus gives its name to the operation of cutting between cameras.

PANEL, push 1, 2, 3, 4, 5, 6

Push a button firmly and release it to make a cut.

SIX shots

TITLE: Effects

The effects busses, A and B, allow you to create fades, dissolves and superimposures.

PANEL, push t3, a4, tE

TP CUTS TO Demonstration

Push the effects button to cut to whatever is set up in the A and B busses.

PANEL, push b7 move handles A to B

The fader handles work in opposite directions. Moving from one bus to another creates a dissolve.

Demonstration DISSOLVES TO TITLE: Dissolve.

PANEL, push b4, a9, handles to A

A dissolve to an empty chain is a fade out.

Demonstration FADES OUT

CU handles at 1/2

A dissolve stopped halfway through is a superimposure.

PANEL, handles move from 1/2 to B

Completing the dissolve fades out the supered material.

SUPER: TITLE: Super over Demonstration; TITLE FADES OUT

PANEL, handles at 1/2

Point at a9

From the middle of a super you can cut to black by punching up the empty chain in the take bus.

(Panel)

Handles split

To fade to black from the super, split the handles--move each to its own off position.

SUPER: TITLE: The End over Demonstrtion; FADE OUT

# APPENDIX B

## Continuity in Cutting

TREATMENT: Continuity in Cutting

This film will show these principles of maintaining continuity when cutting from shot to shot:

1. Location of the center of interest within the frame.
2. Audience orientation to the scene.
3. Shot sequence--preserving orientation (LS-MS-CU).
4. Location of cameras around the scene: angles of view.

Although some mention will be made of the manner in which these principles affect individual shot composition, the emphasis will be on how they affect sequence of two or more shots joined by cuts. Thus, the primary concern of the film will be the flow between pictures rather than individual pictorial content.

Several example scenes will be used to illustrate each principle. These examples will be drawn from typical program situations (e.g., interviews, discussions, demonstrations, lectures, commercials).

Either direct photography or kinescope recording, but not both, will be used for the examples--they must all have the same picture quality.

Specific errors to be illustrated include jumping the subject around in the frame, throwing the subject from one setting to another, showing unexplained actions and unidentified characters, leaving sequences uncompleted, and jumping the audience from viewpoint to viewpoint.

SCENARIO: Continuity in Cutting

| Scene Number and Description | Narration |
|---|---|
| 1. FADE IN--DIAGRAM--Symbols: Ball; Cylinder & ball; Cube. | These symbols represent three basic principles for achieving . . . |
| 2. TITLE--Continuity in Cutting. | . . . continuity in cutting. |
| 3. BALL--CUTS to make it jump around in frame. | The first principle is screen location. |
| 4. MS--CYLINDER & BALL against background A--jump to background B--to A--to B--then CUT TO--LS--CUT To--CU. | The second principle is orientation , . . and sequence. |
| 5. CUBE--CUT BETWEEN MS from low right and CU from high left. | The third is viewpoint. |
| 6. EMPTY FRAME. | The frame is a fixed boundary marking off the limits of the screen. Everything seen within the frame is placed there--it has location. |
| TITLE: Screen Location POPS INTO FRAME. | |
| 7. BALL--CUTS to make it jump around in frame. | Because the boundary is fixed, a change in screen location may appear to be a jump when you cut. |
| 8. MCU of Man--Cuts to jump him around in frame. | The center of interest must be similarly located from shot to shot or cuts will be jumps. The man is bobbed around, instead of . . . |

9. MCU of Man--CUTS to keep him located.

    . . . held in a constant location. A constant location provides continuity from shot to shot.

10. MS--Man holds up demonstration item.

    The center of interest in the shot, the focus of attention, is what must be held constant. Other things may be displaced by the cut, but not the central interest point.

11. Jumpy CUTS between Man and CU of item.

12. Smooth CUTS between Man and CU of item.

13. MS--Man.

    Jumpiness may occur when the subjects of two shots are similar in size and shape, even though not exactly the same:

14. Jumpy CUTS between Man and Globe on pedestal.

    Mismatched locations cause a sensation of lurching--the subject is thrown from one spot to another and so is the audience. Even with strong motivation for a cut . . .

15. MAN GLANCES off screen, POINTS to something out of frame.

16. Jumpy CUT to GLOBE on pedestal.

    . . . there will be a jump if location is not held constant.

17. MAN GLANCES off screen--smooth CUT to Globe.

18. 3-SHOT, People.

    Screen location is even more complex and crucial when a scene involves two or more items. One will be the focus of interest; it must be in the same place in various shots of the scene or a jump will occur.

19. Series of jumpy CUTS between 3-shot and 2-shots.

20. 3-SHOT, Bottle, Glass, Straws.

The same thing can occur with inanimate objects as well as with people.

21. Series of jumpy CUTS between shots of bottle, glass and straws.

22. 3-SHOT, people as in 18.

A constant screen location provides continuity between shots. Good CUTS among people.

23. Bottle, Glass, Straws as in 20--smooth CUTS among them.

24. 1-SHOT--CU--Man looking L, crowded R.

Screen location must be constant, and it must reflect the reality of the situation.

25. 1-SHOT--CU--Man looking R, crowded L.

26. CUTS between 24 and 25.

The truth of the scene must be apparent in each shot. Why make two people appear back to back . . .

27. 1-SHOTS (24 and 25)--PAN each to uncrowded framing.

28. CUTS between 24 and 25 with proper framing.

29. 2-SHOT showing men from 24 and 25 sitting facing one another.

. . . when in reality they are face to face?

This revealing two-shot leads to the second basic principle of continuity in cutting:

30. TITLE: <u>Orientation and Sequence</u>.

31. Ball & Cylinder on BG A--CUTS to jump it between BG's A and B.

It is difficult for the audience to understand what is going on in a scene and where they are looking if you have not oriented them . . .

32. Ball & Cylinder on A & B joined to make a corner (as of two walls).

. . . to the scene as a whole.

33. MS--Man in living room--CUTS to jump him between living room and blackboard.

Are we seeing this man jump from a living room to a school room?

34. LS--Man in "office"--one wall looks like a living room, adjoining wall has blackboard.

Or are we seeing him in his study? Perhaps it is his office; or even a TV setting. The point is, provide an orientation shot before you take shots of details. Establish the whole scene first . . .

35. CUTS of man against living room and blackboard (as 33).

. . . so that the audience will understand where they are looking--continuity will not be lost.

36. MLS--2 Men, seated, talking.

The orientation shot shows the whole of what we will be looking at. Generally, it is a long shot, or a "cover" shot. After using it, you can use medium and close shots without disrupting continuity, for the audience will know where people and things are.

37. Closer shots of the men in 36.

When the scene changes, you must reorient the audience so they can see the new places for things. Provide a re-establishing, or reorientation, shot . . .

38. LS--2 men seated as in 36--one RISES, CROSSES to map in BG.

39. Detail shots of man, map and other, seated, man.

. . . then concentrate attention on significant details again.

40. LS--as in 38--third man ENTERS, stands by chair--then DETAIL SHOTS of the men and map.

Reorient the audience at every new development.

41. LS--Cylinder & Ball

The other half of the second principle is sequence. Continuity is disrupted by too extreme a change from shot to shot.

CUT TO--CU

Here the change from long shot to close-up is too extreme.

42. LS--2 men, seated.

The orientation shot shows the scene; it is a long shot.

43. MS from R angle of 2 men in 42.

The second shot--a medium shot--shows where we are going to concentrate; it indicates the direction of development.

44. CU--Man facing camera in 43,

The close-up completes the sequence by presenting a detail for examination.

45. LS--Man demonstrating with item.

46. MS--Man and item, from 45.

47. CU--Item, from 45.

This basic sequence provides continuity and smooth flow.

48. LS--Man, as 45--CUTS TO--CU--Item, as 47.

Omitting the middle shot breaks continuity.

49. MCU--Man (different scene)--CUT TO--CU.

Starting too close prevents orientation; there is no understanding of the scene and the action.

50. LS--Man working with small item, pointing out fine details--
CUT TO--MS.

Leaving out close-ups makes the audience break concentration with the wish to see important details better.

51. LS--Cylinder & Ball--CUT TO--MS--CUT TO--CU.

The sequence is the fundamental pattern; the variations you work around it without breaking continuity are evidence of a thoughtful, creative approach to the scene.

52. TITLE: Viewpoint.

After the orientation shot, a medium shot is used to tell the audience where they stand. Proper viewpoint helps to keep them on the same axis.

53. Cube--CUT from MS from low R to CU from high L.

This is a jumpy way to go from medium shot to close-up.

54. MS--Man with card turned to right.

55. CU--Card from 90° R of 54.

And so is this.

56. MS--Man with card not turned.

Keep the angle from which you view something consistent . . .
CUT TO--CU of card.

. . . from shot to shot.

57. MS--Man seated.

58. CU--from wide L--of man in 57.

Viewpoint is a matter of horizontal angle . . .

59. MS--Man seated, as in 57.

60. CU--from R and UP--of man in 57.

. . . and vertical angle. Don't jump from viewpoint to viewpoint . . .

61. LS--Man seated, as in 57--CUT TO--MS--CUT TO--CU--each from different horizontal and vertical angles.

. . . when it is so easy to maintain continuity by keeping a constant viewpoint.

62. LS--Man seated, as in 57--CUT TO--MS--CUT TO--CU--with matched viewpoints.

63. LS--2 people, standing, talking.

The long shot orients the audience to the scene.

64. MS--people in 63.

The medium shot shows a base position from which something will be seen.

65. CU--man in 64.

The close-up must be consistent with that base position.

66. 2-SHOT, people facing, talking.

The base position is established in relation to a line of action. The line of action can be physical or psychological. In this scene it is a psychological line running from face to face. You must not cut across this line of action. If you do, you will disrupt continuity.

67. Bad CUTS across line of people in 66.

68. REVERSE ANGLE SHOTS across line, as in 66.

Cutting across the line can even make two people appear to be facing in the same direction. . .

69. CUTS between CU's across line, as in 66.

70. 2-SHOT, as in 66.

. . . when, of course, they are not.

71. MS--action moving L to R across screen.

When the line of action is one of physical action, all viewpoints must be on the same side of the line . . .

72. Action as in 71 from ACROSS LINE.

. . . or the action will reverse direction.

73. CUTS back and forth across line of action in 71.

74. CUTS between shots on one side of line of action in 71.

A consistent viewpoint provides continuity and carries the action forward in a constant direction.

75. TITLE: Continuity.

Continuity is the continuation of audience interest, understanding and involvement from shot to shot. A cut that is abrupt and jarring breaks audience involvement. Good cutting continuity can be achieved with . . .

76. Ball--steady in center of screen.

. . . proper screen location, matched from shot to shot . . .

77. LS--Cylinder & Ball in front of corner formed by BG's A and B--CUT TO--MS--CUT TO--CU.

. . . orientation to the scene and good cutting sequence; . . .

78. MS--Cube--CUT TO--CU from matched angle.

. . . and well-chosen, consistently maintained viewpoints.

FADE OUT.

SHOOTING SCRIPT: Continuity in Cutting

| Scene Number | Shot | Description |
|---|---|---|
| 1. | 1. | SYMBOLS: Ball; Cylinder & Ball; Cube--together. |
| 2. | 2. | TITLE: Continuity in Cutting. |
| 3. | 3. | SYMBOL: Ball--centered. |
| | 4. | Ball--new spot. |
| | 5. | Ball--new spot. |
| | 6. | Ball--new spot. |
| | 7. | Ball--new spot |
| 4. | 8. | MS--SYMBOL: Cylinder & Ball ON BG A. |
| | 9. | MS--SYMBOL: Cylinder & Ball ON BG B. |
| | 10. | (repeat 8) |
| | 11. | (repeat 9) |
| | 12. | LS--Cylinder & Ball ON BG A. |
| | 13. | CU--Cylinder & Ball ON BG B. |
| 5. | 14. | MS--SYMBOL: Cube--from low R. |
| | 15. | CU--SYMBOL: Cube--from high L. |
| | 16. | (repeat 14) |
| | 17. | (repeat 15) |
| | 18. | (repeat 14) |
| 6. | 19. | EMPTY FRAME |
| | 20. | TITLE: Screen Location. |
| 7. | 21. | SYMBOL: Ball--centered--(repeat 3). |
| | 22. | (repeat 4) |
| | 23. | (repeat 5) |

24. (repeat 6)

25. (repeat 7)

8. 26. MCU--Girl holding up cola bottle; table before her with glass and straws on mat.

27. MS--Girl--new framing.

28. CU--Girl--new framing.

29. MCU--Girl--new framing.

9. 30. MCU--Girl with bottle (as in 26)--properly framed.

31. MS--Girl--frame to match 30.

32. (repeat 30)

10. 33. MS--Girl in setting as in 26--she LIFTS bottle from table to hold it beside her face.

11. 34. CU--bottle--misframe.

35. MS--Girl holding up bottle--new framing.

34a. (repeat 34)

12. 36. (repeat 33)

37. CU--bottle--match framing to 36.

38. (repeat 36)

39. (repeat 37)

13. 40. MS--Girl as in 26.

14. 41. MS-Globe on draped pedestal in LIMBO--frame to mismatch 40.

42. MS--Girl--new framing.

43. MS--Globe--new framing.

15. 44. MS--Girl, as in 26--she LOOKS, then POINTS out of frame.

16. 45. MS--Globe, as in 41--frame to mismatch 44.

17. 46. (repeat 44)

47. MS--Globe--match framing to 46.

18. 48. LS--3-SHOT--Girl and 2 Men seated around table; girl in center, 1 man on each side.

19. 49. MLS from R--3-SHOT as in 48.

50. MS from L--Girl and Man on R.

51. MS from center--Girl and Man on L.

52. MS--Girl from over the shoulder of Man on R.

53. MS--Girl from over the shoulder of Man on L.

20. 54. FULL SHOT--LIMBO--Bottle, Glass and Straws on mat on table; Glass at L; Bottle in Center; Straws at R.

21. 55. MS--items in 54.

56. MS-from L--Bottle and Straws.

57. MS from R--Glass and Bottle.

22. 58. LS--3-SHOT--Girl and 2 Men around table, as in 48.

59. MS from center--Man on L and Girl--PAN RIGHT TO--MS--Girl and Man on R.

60. MS--Girl from over the shoulder of Man on R--PAN LEFT TO--2-SHOT--Girl and Man on L.

61. MCU from L--Girl.

62. MS from L-- Girl over the shoulder of Man on L.

63. 3-SHOT--(repeat 58)

23. 64. FULL SHOT--LIMBO--Bottle, Glass and Straws, as in 54.

65. (repeat 57)

66. MLS from R--3-SHOT--Bottle, Glass and Straws.

67. MS from L--2-SHOT--Bottle and Straws.

68. (repeat 64)

24. 69. CU--Man in informal discussion setting, facing L--framing crowds him against L edge.

25. 70. CU--Man in informal discussion setting, facing R--framing crowds him against R edge.

26. 71. (repeat 69)

72. (repeat 70)

73. (repeat 69)

74. (repeat 70)

27. 75. CU--Man, as in 69--PAN L TO proper framing.

76. CU--Man, as in 70 but properly framed.

28. 77. CU--Man, as in 69 but properly framed (as at end of 75).

78. (repeat 76)

79. (repeat 77)

29. 80. MS--2 Men in discussion setting (as in 69, 70) seated facing each other.

81. (repeat 77)

82. (repeat 76)

83. (repeat 80)

30. 84. TITLE: Orientation and Sequence.

31. 85. MS--SYMBOL: Cylinder & Ball ON BG A (repeat 8)

86. MS--SYMBOL: Cylinder & Ball on BG B (repeat 9).

87. (repeat 8)

88. (repeat 9)

89. (repeat 8)

32. 90. LS--SYMBOL: Cylinder & Ball ON CORNER of BG's A & B joined.

33. 91. MS--Man seated in "living room"--from L.

92. MS--Man seated in "classroom"--from R.

93. (repeat 91)

94. (repeat 92)

34. 95. MLS--Man seated in "office" setting composed of living room wall as in 91, and classroom wall as in 92.

35. 96. (repeat 91)

97. (repeat 92)

36. 98. MLS--2-SHOT--Girl seated on couch, Man on chair facing her; Map on wall in background.

37. 99. MS from R--Girl past man.

100. CU from R--Girl.

101. MS--2-SHOT--from side.

102. MS from L--Man over the shoulder of Girl.

38. 103. MLS from L--Man RISES and CROSSES TO Map--PAN with cross.

39. 104. MS--Man at Map.

105. MS--Girl.

106. MCU--Man at Map--he POINTS to detail on map.

107. CU--finger pointing at detail on map.

108. MS--Man at Map, POINTING as in 106.

40. 109. MLS--2-SHOT--Girl seated on couch, Man at Map--Second Girl ENTERS to STAND behind seated girl.

110. MS--2-SHOT--Girls.

111. MS--Man at Map.

112. (repeat 110)

113. CU--Girl standing--she LOOKS toward map.

114. 3-SHOT from L--Man at Map seen PAST girls on L.

41. 115. LS--SYMBOL: Cylinder & Ball.

116. CU--SYMBOL: Cylinder & Ball.

42. 117. MLS from center--2 Men seated facing one another.

43. 118. MS from R--Man 1 facing camera, seen PAST Man 2.

44. 119. CU--Man 1.

45. 120. LS--LIMBO--Girl with cola bottle--she LIFTS it to beside face, POINTS at it.

46. 121. MS--Girl POINTING at bottle, as in 120.

47. 122. CU--Bottle in Girl's hands, as in 121.

48. 123. LS--Girl holding up cola bottle.

    124. CU--Bottle in Girl's hands.

49. 125. MCU--Man pointing out elements on traffic instruction poster.

    126. CU--Man in front of poster--he LIFTS model car into shot.

50. 127. LS--Man seated at table, working with very small item--he POINTS OUT some minute details.

    128. MS--Man as in 127.

51. 129. LS--SYMBOL: Cylinder & Ball ON CORNER of BG's A & B (repeat 90).

    130. MS of 129.

    131. CU of 129.

52. 132. TITLE: <u>Viewpoint</u>.

53. 133. MS--SYMBOL: Cube--from low R. (repeat 14).

    134. CU--SYMBOL: Cube--from high L (repeat 15).

    135. (repeat 14)

    136. (repeat 15)

54. 137. MS--Girl in "Teen Time" program setting with card in hands turned about 90° from camera.

55. 138. CU--Card in Girl's hands, as in 137.

56. 139. MS--Girl as in 137--card turned toward camera.

    140. CU--Card in Girl's hands, as in 139.

57. 141. MS--Man seated in "Late News" program setting.

58. 142. CU--Man--from wide L.

59. 143. (repeat 141)

60. 144. CU--Man--from R angle and UP.

61. 145. LS--Man--from eye level, head on.

    146. MS--Man--from R angle and DOWN.

    147. CU--Man--from L angle and UP.

62. 148. (repeat 145)

    149. MS--Man--match angle of 148.

    150. CU--Man--match angle of 148.

63. 151. LS--2 Girls seated facing each other in "Signs of Ideas" setting--from slightly R of Center.

64. 152. MS--2 Girls--match angle of 151. SHOOT EXTRA TAKES

65. 153. CU--Girl on L.

66. 154. (repeat 152)

67. 155. Girl at L from over the shoulder of Girl at R.

68. 156. REVERSE ANGLE SHOT (across line) of 152. SHOOT EXTRA TAKES.

69. 157. CU--Girl at R--from across line.

    158, (repeat 153)

70. 159. (repeat 152)

71. 160. MLS--Car moving L to R.

72. 161. REVERSE ANGLE SHOT of 160.

73. 162. MLS--Car moving L to R (160 continued).

    163. REVERSE ANGLE SHOT (161 continued).

74. 164. (160 continued).

    165. New angle, 160 action continued; same side of line.

    166. New angle, 165 action continued; same side of line.

75. 167. TITLE: Continuity.

76. 168. SYMBOL: Ball--centered.

77. 169. LS--SYMBOL: Cylinder & Ball ON CORNER of BG's A & B (repeat 90).

    170. MS of 169 (repeat 130).

    171. CU of 169 (repeat 131).

78. 172. MS--SYMBOL: Cube.

    173. CU--SYMBOL: Cube--match to 172--FADE OUT.

EDITING NOTES: Continuity in Cutting

(These notes show the construction and sequence of the final edited version of the film.)

Shots

2 TITLE: Continuity in Cutting

1 3 SYMBOLS together.

3 Ball SYMBOL, centered, steady

20 TITLE: Screen Location

29, 27, 32, 31, 33, 38 Girl with cola bottle jumped around in frame

insert Black

54 Bottle, Glass and Straws

56 Glass and Straws

57 Glass and Bottle

48 LS--Girl and 2 Men around table

60 Girl from OS Man R--PAN L to Girl & Man L

62 Girl from OS Man L

61 MCU--Girl--from L

insert Black

69-72 no changes (other than shot length)

75 no change

insert 74a Man facing R crowded against R edge--PAN to proper framing

77-78 no change

80-82 no change

insert Black

3-7 Ball jumping--no changes

insert Black

Shots

12 Cylinder & Ball SYMBOL

84 TITLE: Orientation and Sequence

91-95 no changes

97 no change

insert 96a MCS of 91--Man in "living room"

insert Black

98-99 no changes

102 Boy OS Girl

100 CU Girl

insert 103a MS Map

105a Girl past empty chair

107 CU hand on map

113 CU second Girl

106 MS Man at map

110 2-Shot of Girls

insert 4 seconds of black

101 MLS Girl and Man

99 Take 2

100 Take 2

102 Take 2

insert 102a CU Man

103 MLS--Man rises, goes to map

109 Second girl walks in

108 Man at map, pointing

107 CU hand on map

**Shots**

113 Take 2

112 2-Shot of Girls

114 3-Shot--Man from behind Girls

insert Black

117-119 no changes

insert Black

121-122 no changes

insert Black

120 and 123 Combine for longer timing

124 no change

insert Black

125 Man at Traffic poster--Cut in half

126 CU at poster

125 second half

insert Black

127-128 no changes

insert Black

85-90 no changes

130-131 no changes

insert Black

173 CU Cube SYMBOL

132 TITLE: Viewpoint

145 LS Man in News set

146 MS from low R

147 CU from up L

Shots

141 MS

144 CU from R, up

143 MS

insert Black

148-150 no changes

insert Black

137 Girl with card at 90° to camera

139-140 no changes

insert Black

151 LS 2 Girls

156 REVERSE ANGLE

151 Take 2

152 MS

153 CU Girl on L

154 MS

157 CU Girl on R

155 Girl L OS Girl R

157 Take 2

155 Take 2

157 Take 4

157a MS Girl on R from across line

158 CU Girl on L

157a Take 2

158 Take 3

159 MS 2-Shot

Shots

insert Black

160 Car moving to R

161 Car moving to L

160 continued

161 continued

162 Car moving to R

163 Car moving to L

insert Black

164-166 no changes

insert Black

133-136 Cube SYMBOL shots--no changes

167 TITLE: Continuity

1 3 SYMBOLS together

168 Ball SYMBOL centered, steady

169 Ball & Cylinder on BG A & B corner

172 MS Cube

Black

---

Shots deleted from Continuity in Cutting:

8, 9, 10, 11, 13--Cylinder & Ball symbol, various views

14, 15, 16, 17, 18, 19--Cube symbol, various views

21, 22, 23, 24, 25--Ball symbol, various screen locations

26, 28, 30--Girl with cola bottle

34, 35, 36, 37, 39, 40--CU's from cola bottle sequence

41, 42, 43, 44, 45, 46, 47--Globe sequence

Shots deleted (continued):

49, 50, 51, 52, 53 and 63--Girl and 2 Men at table, various views

55, 58, 59 and 64, 65, 66, 67, 68--Bottle, Glass and Straws, various views

73, 74, 76, 79 and 83--2 men seated facing each other

104 and 111--Man at map

115, 116--Ball & Cylinder symbol

129--Ball & Cylinder on BG A & B corner

138--CU card in Girl's hands from $90^{\circ}$ angle

146--Man in news set

170, 171--Ball & Cylinder symbol

COMMENTARY: Continuity in Cutting

| Picture | Narration |
|---|---|
| TITLE: Continuity in Cutting | |
| 3 symbols | These symbols will help you to remember three principles of continuity in cutting. |
| Ball | The ball represents . . . |
| TITLE: Screen Location | . . . screen location. |
| Girl with bottle jumped around | When the center of interest is not in a constant location within the frame from shot to shot, cutting bounces the subject all over the screen. |
| Black | When the scene has several elements, location is even more important. |
| Bottle, Glass and Straws | Here are three items. We'll shoot two at a time: |
| Glass and Straws | Watch what happens to the glass when we cut . . . |
| Bottle and Glass | . . . it leaps to the other side of the frame because screen location was not constant. |
| 3 people at table | The effect would be even more pronounced if |
| Girl OS Man on R | the subjects were people. To avoid this trouble, |
| PAN L | adjust your shots so that when you do make a cut . . . |
| Girl OS Man on L | . . . the elements of the scene are similarly |
| CU Girl | placed in each shot. |
| Black | |
| Men crowded L and R in frame | Proper screen location also means framing the subject to show the true situation. Are these men back-to-back? |

| Picture | Narration |
| --- | --- |
| PANS to uncrowd them--then CUTS between | Different framing suggests that they are face-to-face. |
| 2-shot, men facing<br>Cuts between them | Whatever the real situation, cut between shots that reflect it. |
| Black | |
| Ball jumps around | Let the bouncing ball remind you: when screen locations do not match, the subject jumps from shot-to-shot. |
| Black | |
| Cylinder & Ball<br>TITLE: Orientation and Sequence | This symbol represents a two-part principle. . . . . orientation and sequence. |
| Seated man jumps from "living room" to "classroom" | You must show the whole scene to the audience before showing them details. For instance, is this man in a living room. . .or in a classroom? He seems to jump from one room to the other. Of course we might guess that the whole scene . . . |
| Cover shot showing "office" | . . . is really this, but why must we guess? We should have seen this shot at the very beginning-- we should have been oriented to the set. Only |
| MS Man in each set | after proper orientation can closer shots be understood. |
| Black | Orientation is not a one-time thing. Whenever the elements in a scene shift, the audience must |
| Man and Girl, Map in BG | be reoriented. |

| Picture | Narration |
| --- | --- |
| (Man and Girl) | For instance, in this scene things start out well: here is the orientation shot. But watch what happens as the scene progresses. |
| Man OS Girl<br>CU Girl | |
| Map | We know where the map is . . . |
| Girl past empty chair | . . . but how did his chair become empty? |
| CU hand on map | Where did that hand come from? |
| CU new Girl | Who is this? And where is she? |
| Man at map | Oh--it was his hand. But how did he get there? |
| 2 Girls | And that's where she is. But when did she come in? |
| Black | The problem is, we were never reoriented to the scene as a change was occurring. The elements shifted positions significantly, but we never saw it. |
| Man and Girl<br>(4 shots) | Watch this scene again. This time there is proper orientation throughout. First orientation to the overall situation. |
| Man rises, goes to map | Then, new orientation to show that he moves and to show where he goes. |
| 2nd Girl comes in | Another new development--and an orientation shot. |
| (Shots of the scene) | Because we know where all these elements are, the closer shots do not disturb us. However, even if these positions remain the same for several minutes, |
| 3-shot | we need an occasional long shot to remind us where everything is. |
| Black | The key is orientation--and reorientation. |

| Picture | Narration |
| --- | --- |
| LS 2 Men | Orientation is only half the story. It can be maintained only by proper shot sequence. The most common sequence begins with a long or "cover" shot to set the scene and orient the audience. |
| MS | Then a medium shot selects the area of the scene that is important. |
| CU | Finally, a close-up concentrates attention on a significant detail within that area. |
| Black | |
| MS Girl with bottle | It is not effective to leave out a step. Without a long shot, we are not sure what the situation is; |
| CU | medium and close shots are not sufficient. |
| Black | |
| LS Girl with bottle | If the middle of the sequence is omitted--the |
| CU | medium shot--we are thrown into the thick of things with a jolt. We didn't know where we were going. |
| Black | |
| Man at Traffic Poster | Here too, the long shot is missing. This medium shot is quite close; we get ever closer . . . |
| CU | but we only get this far away. We cannot be |
| MS | entirely sure that we understand what's going on. |
| Black | |
| Man at table LS | In this case there is a long shot . . . |
| MS | . . . and a medium shot . . . . and we are left |

| Picture | Narration |
|---|---|
| (Man at table) | up in the air. Where is the close-up? This scene cries out for it. Once started, a sequence should be made complete. |
| Black | |
| Cylinder & Ball jumps between horizontal and vertical stripes | Here is the symbol to remind you that the subject will jump from set to set unless you provide orientation with a . . . |
| Symbol on corner of BG's--LS | . . . long shot. Follow that with a |
| MS | . . . medium shot and a . . . |
| CU | . . . close-up for proper sequence. |
| Black | |
| Cube | The cube symbolizes the third principle of continuity . . . |
| TITLE: Viewpoint | . . . viewpoint. |
| LS Man in news set | Viewpoint refers to the angle and place from which a subject is seen. |
| MS | Horizontal angle . . . |
| CU | . . . and vertical angle. The audience is thrown |
| MS--CU--MS | around when no two viewpoints are the same. |
| Black | The solution is a consistent angle of view. |
| LS Man in news set | The long shot establishes the basic angle. |
| MS--CU | Medium and close shots should harmonize with that viewpoint. |
| Black | |

| Picture | Narration |
| --- | --- |
| Girl with card at 90° | The performer may do something to disrupt viewpoint. Cutting to a close-up of the card would throw the audience way over to the left. |
| Girl with card in corrected position | Arrange and rehearse movement and the handling of props so that viewpoint will be consistent. |
| CU card | |
| Black | |
| LS 2 Girls seated | Every scene has a line of action. Camera viewpoints must stay on one side of that line to preserve continuity in cutting. In this scene a psychological line connects the two girls. |
| (Various shots back and forth across line) | Cutting across it causes their positions to reverse--they change places with every cut. |
| CU's across line | In close-ups, if the cameras are on opposite sides of the line, the girls seem to be facing in the same direction. |
| MS 2-shot | When, of course, they are not. |
| Black | |
| Car moving | Cutting across the line of a physical action |
| (Various shots back and forth) | is even more disturbing, for the direction of movement reverses with every cut. |
| Black | |
| Car moving | Action is smooth when all camera viewpoints are on the same side of the line. |
| Black | |

| Picture | Narration |
| --- | --- |
| Cube | These shots of the cube should remind you that unmatched viewpoints throw the audience around. |
| TITLE: Continuity | To provide continuity from shot to shot as you cut, you must have . . . |
| Ball | . . . constant screen location of the subject . . . |
| Cylinder & Ball | . . . proper orientation and sequence . . . |
| Cube | . . . and a consistent viewpoint. |
| Black. | |

# APPENDIX C

## Potentialities of Movement

TREATMENT: Potentialities of Movement

This film will illustrate various principles of using movement as a complement to dramatic mood and plot development and as a technique for increasing the audience's feeling of participation in a scene. Specific principles to be shown include:

1. Simplicity of movement for performers and cameras.
2. Dynamic line--movement on diagonals toward and away from the camera.
3. Selectivity--movement to conceal and reveal elements in the scene.
4. Motivation for movement--the need for moving must be evident in the scene.
5. Variety--movement to provide shifting, flowing pictorial content.

These names for the principles will not necessarily be used in the film.

Both performer and camera movement will be shown. The emphasis will be on the interaction of these two elements in a well-developed interpretation of a scene. Movement and cutting interpretations of a scene will be contrasted with one another.

Illustrative scenes will be relatively long--about three to five minutes--in order to develop sufficiently varied movement patterns. Program excerpts may provide the most useful examples.

SCENARIO: Potentialities of Movement

| Scene Number and Description | Narration |
|---|---|
| 1. FADE IN--Bottle alone on table. | How long does it take to tire of a static shot? Life is filled with movement. Attention wanders away from a shot that just sits. Movement is essential in television for holding audience attention. You may use . . . |
| PAN from Bottle to Glass. | . . . camera movement . . . |
| Hand REACHES IN with Bottle, POURS into glass . . . | . . . subject movement . . . |
| PAN UP as Hand lifts glass, other hand POINTS to glass. | . . . or camera and subject movement. |
| 2. TITLE: Potentialities of Movement | |
| 3. Scene with many items or interesting details. | Although it is possible to look at the details of a scene in this manner . . . |
| 4. CUTS to details in scene 3. | |
| 5. PAN over details in scene 3. | . . . it is often more pleasing and dramatically useful to look at them like this--with movement. |
| 6. LS--2 Men at desk, one seated, one in front facing him. | The point is, often a stationary scene does not offer sufficient motivation for cutting. Sitting on one shot loses attention and interest. But the scene may be disconcertingly broken up . . . |

7. CUTS between various shots of men as in 6.

. . . by an unharmonious visual treatment.

8. LS--2 Men as in 6.

The solution lies in developing movement that will emphasize and reinforce the dramatic content. Such movement will contribute to the story as well as hold attention and interest.

9. MS--2 Men as in 6; Man 1 seated, Man 2 standing.

This scene involves a tense conflict between personalities. A police inspector is questioning a suspected spy. Watch how movement can intensify the many moods and feelings that make up the dramatic action.

MAN 1 RISES, CROSSES into full-face CU.

In an apparently casual movement the inspector sizes up the suspect and selects his line of attack. He quite naturally conceals his face from the suspect, and in so doing moves to let us watch him think. At the same time we get a good introduction to him in a close-up.

Man 1 TURNS to face Man 2--PAN with turn into COMBINATION SHOT. His mind made up, he turns to the attack.

The shot develops into a composition that comments on the relationship between the two men--the inspector large, dominant, in command; the suspect smaller, farther away, subordinate.

Man 1 CROSSES to face Man 2--DOLLY with cross into TIGHT 2-SHOT, Man 2 over the shoulder of Man 1.

A physical and psychological attack is experienced by moving with the actor's movement--we feel the lunge. The

(9 continued)

mounting intensity is echoed in the uncomfortable closeness of the men in face-to-face opposition. We see the suspect's face more clearly. We can watch him cope with this dangerous moment. We can form an impression of him now and can see his side of things.

Man 1 CROSSES to filing cabinet in BG--PAN cross into COMBINATION SHOT--Man 2 in CU at R, Man 1 in MLS at L.

As the attack fails the physical tension relaxes. The inspector moves away to conceal his feelings. We can experience the suspect's relief and then watch him brace for another test as the inspector turns to try again.

Man 1 TURNS to face camera.

Man 1 CROSSES UP behind Man 2--PAN cross into 2-SHOT--CU--Man 1 on R, Man 2 on L, both facing camera.

The attack begins anew. We feel it in the intensity of the move toward the camera--the inspector lunges into prominence. Again, closeness and tension--we are intimate participants. This time the expressions of both men, though concealed from one another, are visible to us. We see the ebb and flow of confidence and worry. We are on top of the situation as the inspector gives up.

Man 1 CROSSES behind desk, SITS--Pan with cross to MS Man 1 seated.

The situation begins to resolve itself. The movement echoes this development: separation. We keep watching the antagonist to see the next move. As his resignation becomes

(9 continued)

apparent, we are above him, more removed from the scene. He is defeated and we are looking at him from a superior viewpoint. The shot develops into a concluding, balanced composition that could easily lead into a . . .

FADE OUT

. . . fade out.

10. MLS--2 Men at desk, as in 9--TV camera in foreground which PANS and DOLLIES to follow the movement.

The movement in this scene provides a harmonious, constructive visual treatment because it has a flowing, developing dramatic purpose. It is simple movement for both performer and cameraman.

Man 1 WALKS through movement of scene (as in 9)--Camera FOLLOWS.

The camera pans and booms into the first close-up. It pans into the combination shot.

There is one short, straight-line dolly with the cross.

Two pans . . . and the scene comes to an end.

As you saw before, this economical combination of simple moves resulted in an interesting, meaningful visual treatment that reflected and emphasized the continuously shifting dramatic intensity.

FADE OUT

11. LS--"Land of Play" setting.

Movement often provides a sense of participation. At the same time it can serve to select, reveal and emphasize things

(11 continued)

step by step. The opening of this children's program was designed to capitalize on these aspects of movement.

An imaginary trip is taken each day into the "Land of Play". . .

PAN across set.

. . . The performer leads the way from place to place; the camera follows and its movement adds to the feeling of taking a trip.

Although movement was planned for use from the beginning, this kinescope clip from an early rehearsal shows many problems and faults.

12. KINE CLIP: "Bad" opening sequence.

(Write narration from action in clip.)

13. DIAGRAM: Floor Plan #1.

This floor plan of the set will show the main problem to be movement that is too complicated for both camera and performer.

ANIMATE--Performer's path.

The performer moves in too many tight curves and meaningless twists and turns . . .

ANIMATE--Camera's path.

. . . and the camera follows too complex a path while trying to pan, truck and boom all at once.

14. Detail shots of set changes.

The problems were eliminated with a few minor set changes and the simplification of the movement paths:

15. DIAGRAM: Floor Plan #2--ANIMATE Performer and Camera paths.

The result was this new treatment:

16. KINE CLIP: "Good" opening sequence.

(Write narration from action in clip.)

17. TITLE: Potentialities of Movement.

These scenes have shown five principles for exploiting the potentialities of movement:

18. Desk example, Man 1 in first CU--PAN into COMBINATION SHOT.

Use the shifting composition that results from movement to create dramatic emphasis and comment.

19. Opening move from "Land of Play."

20. Desk example, Man 1 at file cabinet, crosses up behind Man 2--PAN into TIGHT 2-SHOT, CU.

Let movement bring the subject toward or away from the camera rather than across the field of view at a constant distance.

21. DIAGRAM: Floor Plan #2 ("good" Land of Play treatment) with performer and camera paths drawn in.

Simplify the paths of movement, especially for the cameras.

22. "Land of Play" example, DOLLY BACK from hatrack to reveal fishbowl, the PAN to music box on desk.

Use movement to reveal new material, eliminate old material. Move to bring small objects into the foreground, large objects into the background.

23. MLS--Desk example with TV camera in foreground--excerpt from middle showing camera and performer moving.

(23 continued)

Let movement arise first from dramatic motivation reinforced by physical motivation within the picture--do not impose movement upon a scene, motivate it.

FADE OUT

SHOOTING SCRIPT: Potentialities of Movement

| Scene Number | Shot Number | Description |
|---|---|---|
| 1. | 1. | FADE IN--MS--Bottle on mat on table--LIMBO--hold for several seconds then--PAN R to 2-SHOT--Glass and Straws--Hand ENTERS from L with Bottle and POURS into Glass, puts Bottle down and RAISES Glass--PAN UP with Glass--other hand POINTS at Glass. |
| 2. | 2. | TITLE--Potentialities of Movement. |
| 3. | 3. | FULL SHOT of office used for storage of "Land of Play" properties. |
| 4. | 4. | CU--Hats on wall in 3. |
| | 5. | CU--Masks in 3. |
| | 6. | CU--Toy tiger in 3. |
| | 7. | CU--Horse on poster on wall in 3. |
| | 8. | FS--Poster on wall in 3. |
| 5. | 9. | CU--Hats on wall in 3--PAN across other details to end up on FS--poster on wall. |
| 6. | 10. | LS--2 Men at desk; Man 1 seated, Man 2 standing in front, facing him--file cabinet in L BG--other office details in BG. |
| 7. | 11. | MS--2 Men, as in 10. |
| | 12. | CU--Man 2. |
| | 13. | CU--Man 1 |
| | 14. | 2-SHOT--Man 2 over the shoulder of Man 1. |
| | 15. | MS--Man 1. |
| 8. | 16. | LS--2 men at desk--(repeat 10). |

9. 17. (A) MS--2 Men at desk--(B) PAN into CU--Man 1 as he RISES and CROSSES up to camera--(C) PAN into COMBO SHOT of Man 1 on R, Man 2 in L BG as Man 1 TURNS--(D) Man 1 CROSSES to face Man 2--DOLLY IN with cross to TIGHT 2-SHOT--Man 2 on R from over the shoulder of Man 1--(E) PAN into COMBO SHOT of Man 2 in CU on R, Man 1 in BG as Man 1 CROSSES back to file--(F) PAN into TWO TIGHT HEADS--both facing camera, Man 2 on L--as Man 1 CROSSES behind Man 2 into camera--(G) PAN into MS--Man 1 seated--as he CROSSES behind desk and SITS.
10. 18. MLS--2 Men at desk as in 17--TV Camera in FG--Man 1 WALKS through action, as in 17--TV Camera FOLLOWS action, as in 17.
11. 19. LS--from high angle--FG, "Land of Play" setting--PAN UP and L to Door in BG--PAN R across set to Forest--PAN DOWN to FG.
12. 20. KINESCOPE CLIP--"bad" "Land of Play" opening.
13. 21. DIAGRAM--Floor Plan #1--ANIMATE Performer's path--ANIMATE Camera's path.
14. 22. MS--"Land of Play" Hatrack being moved to new position.
    23. MS--"Land of Play" Fishbowl and stand being moved.
    24. MLS--"Land of Play" Magic Door being moved.
    25. MCS--"Land of Play" model Stairway--2 steps added.
15. 26. DIAGRAM--Floor Plan #2--ANIMATE Performer's path--ANIMATE Camera's path.
16. 27. KINESCOPE CLIP--"good" "Land of Play" opening.
17. 28. TITLE--Potentialities of Movement--(repeat 2).
18. 29. (repeat 17 (C) ).

19. 30. KINE CLIP--CU--"Land of Play" Music Box--PAN UP to--MS--
Woman as she WALKS into camera.

20. 31. (repeat 17 (F) ).

21. 32. DIAGRAM--Floor Plan #2 with paths drawn in--(repeat end of 26).

22. 33. KINE CLIP--MS--Woman at Stork in "Land of Play"--DOLLY BACK to reveal Hatrack as she WALKS forward--DOLLY BACK and PAN L to 2-SHOT--Woman and Fishbowl on stand--as she WALKS forward--Pan R to MLS--Music Box on Desk as Woman CROSSES--Pan L to MCS--Fishbowl as Woman CROSSES--DOLLY IN to CU--Fishbowl.

23. 34. (repeat 18 from camera DOLLY to end--as from (D) in 17)--end with FADE OUT.

EDITING NOTES: Potentialities of Movement

(These notes show the construction and sequence of the final edited version of the film.)

Shots

| | |
|---|---|
| 1-4 | no changes (other than shot length) |
| 4a | CU more hats |
| 5-6 | no changes |
| 6a | CU Carousel music box |
| 7 | no change |
| 7a | CU poster cow |
| 7b | CU poster chicks |
| 7c | CU poster bull |
| 7d | CU poster pigs |
| 8-10 | no changes |
| 11a | Man 2 past Man 1 |
| 14 | no change |
| 11b | Man 2 past Man 1 |
| 14a | Man 1 OS Man 2 |
| 15a | Man 2 OS Man 1 |
| 14b | Man 1 OS Man 2 |
| 15b | Man 2 OS Man 1 |
| 14c | Man 1 OS Man 2 |
| 13a | CS Man 2 |
| 12a | MCS Man 1 |
| 13 | no change |
| 12 | no change |

Shots

insert Black

17 no change

insert Black

18 no change

insert Black

19 no change

(20, 21, 22, 23, 24, 25, 26 out)

insert Black

27 add Black to end to extend pause after fade out

28 no change

(30, 32 out)

34 no change

insert Black

31 no change

insert Black

33 no change

insert Black

18a MLS--Man 1 walks into TV camera

insert Black

29 no change

add Black

COMMENTARY: Potentialities of Movement

| Picture | Narration |
|---|---|
| Bottle on table | Life is filled with movement. Movement attracts attention. When a shot is without movement, attention will wander. Television attracts and holds attention with . . . |
| PAN to Glass | . . . camera movement . . . |
| Hand in, pours | . . . subject movement . . . |
| Hand raises glass | . . . and camera and subject movement. |
| TITLE: Potentialities of Movement | |
| Office with props | A very detailed scene can be examined in two ways. |
| CUTS to CU's of props | This is one way; it presents the scene in fragments. |
| PAN across props | Often it is more pleasing to look at a scene this way. The camera movement shows the relationships of the details, it suggests the size of the room and it provides a continuous experience. |
| LS Men at desk | A stationary scene seldom offers sufficient motivation for cutting. But because sitting on one shot loses audience attention and interest, |
| CUTS between the men | a director may cut just for the sake of variety. This is unimaginative and ineffective, as you can see here. No matter how gripping that dialogue may be, these shots contribute nothing. |

| Picture | Narration |
| --- | --- |
| LS Men at desk | The solution lies in developing movement that will emphasize and reinforce the dramatic content. Such movement will contribute to the story as well as hold attention and create interest. |
| MS Men | First the actors must move, then the camera can move. In this scene a police inspector is trying to get information out of a juvenile delinquent. |
| Inspector walks into CU | In an apparently casual movement the inspector breaks the formality of the situation by coming out from behind the desk. He turns away in an offhand manner as he prepares to ask the first important question. The move lets us watch him start the attack; it gives us a good introduction to him in a close-up. |
| Inspector turns into OS COMBO | As he turns to fire the question, the shot develops into a compostion that emphasizes the relationship between the characters--the inspector is large, dominant, in command; the suspect smaller, farther away, subordinate. |
| DOLLY IN to TIGHT OS | The attack is pressed and we participate in it as the camera moves; we feel the lunge. The mounting tension is echoed in the uncomfortable closeness of the men in face-to-face opposition. At the same time we are introduced to the suspect. |

| Picture | Narration |
| --- | --- |
| (TIGHT OS) | We can form an impression of him as we watch him react at this dangerous moment. |
| Inspector moves to file | The attack fails, the physical tension relaxes. The movement conveys this as the inspector moves away, concealing his irritation. We can watch the suspect's relief, see his brief pleasure. |
| Inspector turns to face camera | The changed situation is reflected in the changed placement of the actors. |
| Inspector moves up into TTH | Now, he tries again, determined. We feel the intensity of the attack in the lunge toward us. Again, closeness and tension--we are intimate participants. This time we can see the expressions of both men; we know more than they do for they cannot see one another. |
| Inspector moves and sits | Then the inspector gives up--the situation begins to be resolved and the movement reflects it by causing a separation. We feel it because we lose sight of one character, we are directed to the loser. As he sits down we move down with him and watch the scene play out. |
| FADE OUT | |
| LS Men and TV camera | The movement in this scene provides a constructive visual treatment because it has a flowing, developing dramatic purpose. Furthermore, it is simple. |

| Picture | Narration |
| --- | --- |
| Inspector moves to camera | The camera has a simple pan and a boom to get the first close-up. The actor has a short, direct |
| He turns | path. A pan converts the shot into a combination over the shoulder. |
| He moves to suspect | This move is covered with a short, straight-line dolly--nothing difficult or complex. |
| He moves to file | A pan gives another combination shot. |
| He moves to suspect | Another pan. |
| He moves to sit | One last pan . . . and a brief boom down. One movement at a time, everything simple and direct. |
| | This treatment is economical and it is effective for it reflects and emphasizes the continuously shifting dramatic intensity. |
| FADE OUT | |
| PAN Land of Play set | Movement can provide a sense of participation and it can serve to select, reveal and point out things step by step. The opening of this children's program capitalizes on these aspects of movement. Each day an imaginary trip is taken to greet the familiar inhabitants of the Land of Play. The camera follows along and its movement adds to the feeling of taking a trip. |
| | Watch the opening a few minutes and notice the central role played by performer and camera movement. |

| Picture | Narration |
| --- | --- |
| Land of Play opening | |
| DB from music box woman walks in | From the first, movement provides a visual flow. |
| DOLLY to Forest | The camera and the performer move in straight lines, directly. |
| PAN & DOLLY to Door | In each case, the performer moves first, then the camera moves--there is motivation for the movement. |
| Move past Fish and Desk to Elephant | The movement brings one thing at a time into view. |
| Move to Cat and CUT | When absolutely necessary, a cut is used. Here it is required to maintain a constant closeness with the performer. |
| Move to Stork | |
| Hat off and | Another cut is needed. It comes on a strong |
| DOLLY BACK to Hatrack | movement which bridges the two shots; it makes them continuous. Each new item is revealed by |
| DOLLY BACK to Fish | movement at the time it is needed. Old material is eliminated, new material revealed. |
| PAN to Music box | Notice that things are placed to call for movement and that incidental items are placed out of the way. Here the fish are going to have music with breakfast. |
| PAN back to fish and DOLLY IN | |
| Hands reach in, DOLLY BACK to Stairs on Block | The movement of the hands brings a new element into the shot and motivates a camera move to see |

| Picture | Narration |
| --- | --- |
| | the change. This leads into a larger move which carries the program into a new activity. Notice again that the moves are simple, short and direct. The new item is revealed when needed. |
| CU toy going down stairs | It is not an accident that each activity is full of movement: this is a program for children. |
| Woman | Wherever the program goes next, it will go with smooth-flowing, intriguing movement. |
| FADE OUT | |
| TITLE: Potentialities of Movement | There are some simple principles for using the potentialities of movement. You have seen them in these examples. |
| Man and TV camera (2nd half of inspector scene) | Simplify movement, especially camera movement. Straight lines are easiest for they let the cameraman concentrate on problems of focus and composition rather than on tricky twists and turns. Pans to follow action--rather than dollies--relieve many physical problems. Remember, too, |
| Black | that a performer is far more maneuverable than a camera. |
| PAN Inspector move into TTH | Let movement develop toward or away from the camera. The resulting change in size of the subject creates emphasis, adds force. The camera's stage is a cone pointed at the lens--follow the |
| Black | lines of a cone, not a cube, when you plan movement. |

| Picture | Narration |
| --- | --- |
| Land of Play DB to hatrack, fish, etc. | As performer movement develops toward or away from the camera, complement it with camera movement that reveals new material, eliminates old, Move to select and emphasize. Bring small or important elements into the foreground, larger or less important elements into the background. |
| Black | |
| Man walks up to TV camera | Let movement arise within the scene and then accommodate your cameras to it. When the performer moves, <u>then</u> the camera may move. Do not <u>impose</u> movement on a scene, let it develop from the action and complement it visually. |
| Black | |
| PAN Inspector CU into COMBO | Combine performer and camera movement to create a shifting, flowing visual treatment. Use movement to select, to emphasize the shifting composition and to reflect and enhance the flow and meaning of the action. |
| Black. | |

# APPENDIX D

## GLOSSARY OF MOTION PICTURE TERMS

NOTE: For fuller discussions of these terms the reader is referred to:

Lewis Jacobs, Film Writing Forms: Methods of Preparing a Story for the Screen (New York: Gotham Book Mart, 1934).

W. H. Offenhauser, Jr., 16mm Sound Motion Pictures (2nd ed., New York: Interscience Publishers, 1958).

Karel Reisz, The Technique of Film Editing: Basic Principles for T.V. (3rd ed., New York: Farrar, Strauss and Cudahy, 1955).

Raymond Spottiswoode, Film and Its Techniques (Berkeley and Los Angeles: University of California Press, 1952).

A- and B-roll editing (q.v.)--To facilitate the printing of optical effects (q.v.), footage is separated into two rolls. A print is exposed from roll A first, then rewound and exposed through roll B. For example, a dissolve is divided so that the first shot is on roll A, the second on roll B. The printer light is faded out as the first shot passes, faded in as the second passes. Strips of opaque film inserted in each roll give proper spacing to the shots and prevent light from striking the print wherever the picture is to be printed from the other roll.

Animation--The giving of apparent life and movement to inanimate objects or graphic material. Frames of film are exposed one at a time, each recording a slightly changed position of the subject. When projected, the changes are fused by the eye to seem continuous, as if the subject were moving.

Continuity--Another name for a shooting script (q.v.).

Direct positive--The film emulsion which, when developed, produces a positive image without requiring any intermediate exposure (cf. reversal) or printing (cf. neg-pos): a print made by this process.

Dupe--A print made from a duplicating negative which, in turn was made from a first generation print. The genealogy is: (1) original negative, (2) first generation print, (3) duplicating negative, (4) dupe, or duplicate print. A duplicating negative is made to protect the original negative from wear when a large number of prints is required.

Edge numbers--Serial numbers placed on the edge of the negative at one-foot intervals. They are transferred by printing to all prints. The task of exactly matching corresponding sections of negative and print is simply that of matching edge numbers and counting whatever additional frames are necessary.

Editing--The process of selecting exposed shots, assembling them, cutting or trimming them to length, arranging them in a desired sequence and, finally, splicing them together. The first assembly brings all material together in the order called for by the shooting script. A rough cut eliminates unusable material from the first assembly and may make tentative cuts in the length of some shots. Succeeding fine cuts eliminate excess footage, determine shot arrangement and refine the rhythm, pace and timing of the flow of visual images.

Effects--see: optical effects.

Fine cut--see: editing.

First assembly--see: editing.

Leader--Extra film at the beginning (head) and end (tail) of a roll (camera load) or reel (projector load) of film used for threading into a camera or projector and to protect the film.

Mask--Any cutout placed between the camera and the scene to block out part of the scene. A mask is often painted to blend in with the scene and appear as part of it.

Matte--A mask on film placed between the negative and the film being exposed in the printer to block out part of the image on the negative. A second matte is used with another negative in a second printing to protect the exposed image while something new is printed into the previously blocked-out position.

Montage--In European usage, the whole process of editing (q.v.). In U. S. usage, a montage is a brief sequence composed of many short shots (often double- and triple-superimposed) designed to give a total impression or to provide exposition in a kind of visual shorthand.

Neg-pos (negative-positive)--The process of image reproduction whereby positive images are printed from negatives, and vice versa. (Cf. direct positive; reversal.)

One-light print--see: print.

Optical effects--Any visual changes or devices which cannot be directly photographed as the film passes through the camera once. Dissolves, wipes and superimposures are the simplest and most common effects.

Parallax--The apparent displacement of a subject when seen alternately from two separate viewpoints (e.g., from first one eye, then the other).

Parallel editing--An arrangement of shots which alternately shows the progression of two distinct lines of action thus: A, B, A1, B1, A2, B2, etc. The nature of the actions and the content of the shots will determine whether the two lines develop toward one another, away from one another, or progress in an interacting relationship.

Print--Any positive image. (See: direct positive; neg-pos; reversal.) A one-light print is one made with the printer light set at a constant intensity--no variation is made to compensate for differences in the exposure of the negative. A timed print is one in which the printer light intensity has been varied to compensate for negative variations so that all shots of a scene will have matched exposures. A workprint is one on which editing is carried out to protect the original negative; usually it is a one-light print.

Processing--The printing and development of film. (See: direct positive; neg-pos; reversal.)

Recording--The process of placing sound or music on film. A sound track requires that a negative image of the sound be made. This is combined with the picture negative to provide a print for projection. Often, sound and picture are "married" onto a single duplicating negative to facilitate printing.

Reversal--The production of a positive, rather than the customary negative, image when film exposed in the camera or printed from a positive is processed. Development takes place in two stages with an intermediate exposure of the film to white light to accomplish the reversal.

Rough cut--See: editing.

Scenario--The written form of a film which shows image progress and the development of action. Shots, scenes and sequences are made apparent through construction. Often used interchangeably (though incorrectly) with shooting script (q.v.).

Shooting script--The written form of a film which presents all images in numbered sequences of fully detailed shots and lines of dialogue. The specific blueprint for production, containing all information required for shooting.

Slates--Number boards photographed at the beginning of each shot for identification purposes. Usually a chalkboard; hence, the generic term for any such board.

Slug--Any miscellaneous piece of film inserted to replace missing material or to supply extra footage.

Sound-stripe--A ribbon of iron oxide material bonded to the edge of a film so that sound may be added by tape recording procedures. The sound may be erased and re-recorded as necessary.

Split screen--An optical effect (q.v.) which places two or more pictures side by side without overlapping.

"Strip-tease"--A technique of revealing graphic material by slowly pulling or stripping away a concealing piece which is usually invisible for being of the same color as the background.

Timed print--See: print.

Treatment--A prose narrative which presents the content of a film and which indicates the major elements of the visual treatment of each scene or content division. (See footnote, p. 23).

Wild shot--Any shot taken without regard for specific setting or for specific place in a sequence of actions.

Workprint--See: print.

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