

DOCUMENT RESUME

ED 104 366

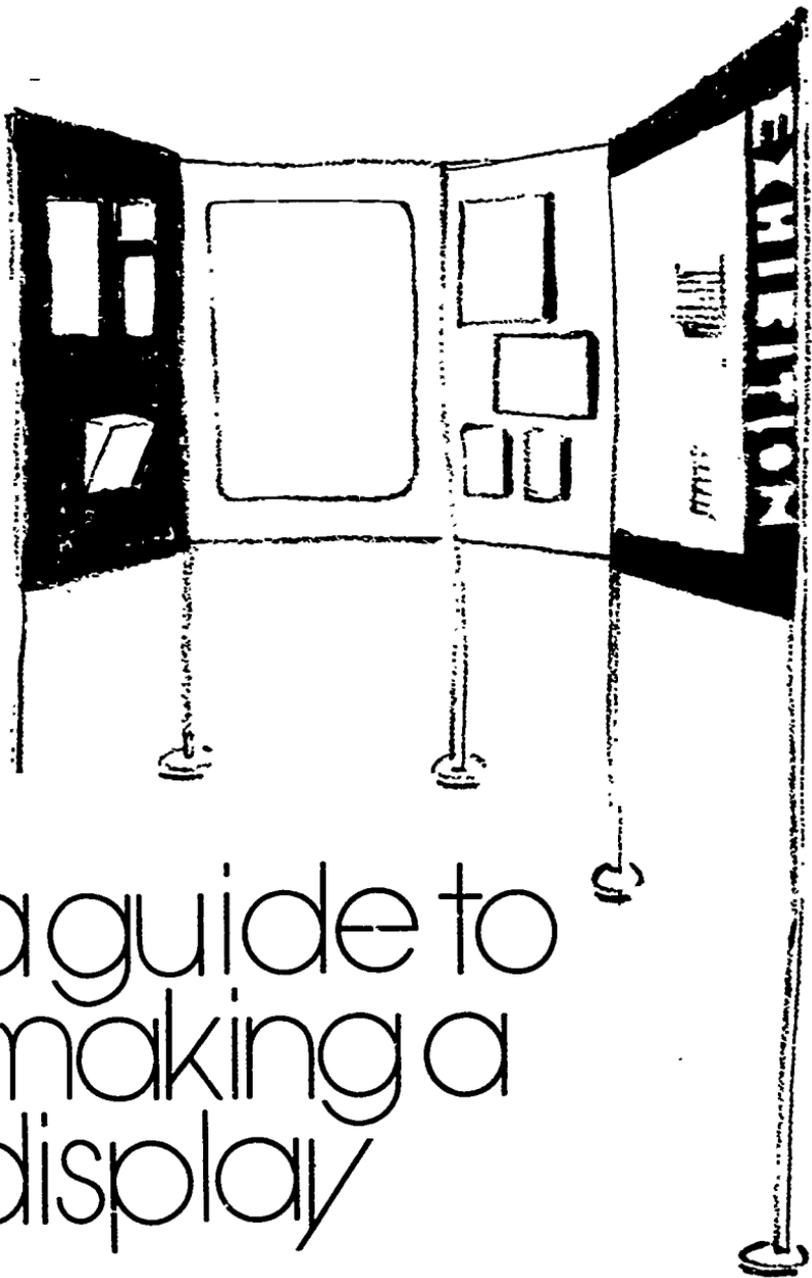
IR 001 758

AUTHOR Gilmour, Frederick T., Comp.  
TITLE A Guide to Making a Display.  
INSTITUTION Research and Information Services for Education, King  
of Prussia, Pa.  
SPONS AGENCY Pennsylvania State Dept. of Education, Harrisburg.  
PUB DATE 75  
NOTE 47p.

EDRS PRICE MF-\$0.76 HC-\$1.95 PLUS POSTAGE  
DESCRIPTORS \*Display Panels; \*Educational Equipment; Exhibits;  
\*Guides; Instructional Materials; Three Dimensional  
Aids; Visual Aids

ABSTRACT

For media specialists, step-by-step instructions are given for design and construction of classroom and corridor displays. Included are sections on selecting the form, choosing construction materials, covering and mounting, lettering, and utilizing scrap materials. A bibliography lists other books on display building. An appendix lists manufacturers of necessary supplies. (SK)



# a guide to making a display

IR 001 758

Compiled and edited for

RISE

by

Frederick T. Gilmour

Multi-Media Specialist

Liamspport Area School District  
Liamspport, Pennsylvania 17701

U.S. DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
NATIONAL INSTITUTE OF  
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-  
DUCED EXACTLY AS RECEIVED FROM  
THE PERSON OR ORGANIZATION ORIGIN-  
ATING IT. POINTS OF VIEW OR OPINIONS  
STATED DO NOT NECESSARILY REPRESENT  
OFFICIAL NATIONAL INSTITUTE OF  
EDUCATION POSITION OR POLICY

2

## CONTENTS

1	THE VEHICLE	3
2	CONSTRUCTION MATERIALS	10
3	COVERING THE VEHICLE	13
4	MOUNTING DISPLAY MATERIAL	17
5	PORTABILITY	22
6	LETTERING	28
7	THE SCRAP PILE	33
8	GENERAL RECOMMENDATIONS	37
	<i>Bibliography</i>	43
	<i>Appendix</i>	44

# 1 THE VEHICLE

So you have to make a display.

Most likely you don't have the time or the money to go into an elaborate display, but if you do have a limited budget and a small amount of time, take a few minutes to browse through this booklet. We hope to give you a new slant on display building specifically designed for a restricted budget.

First, ponder these points:

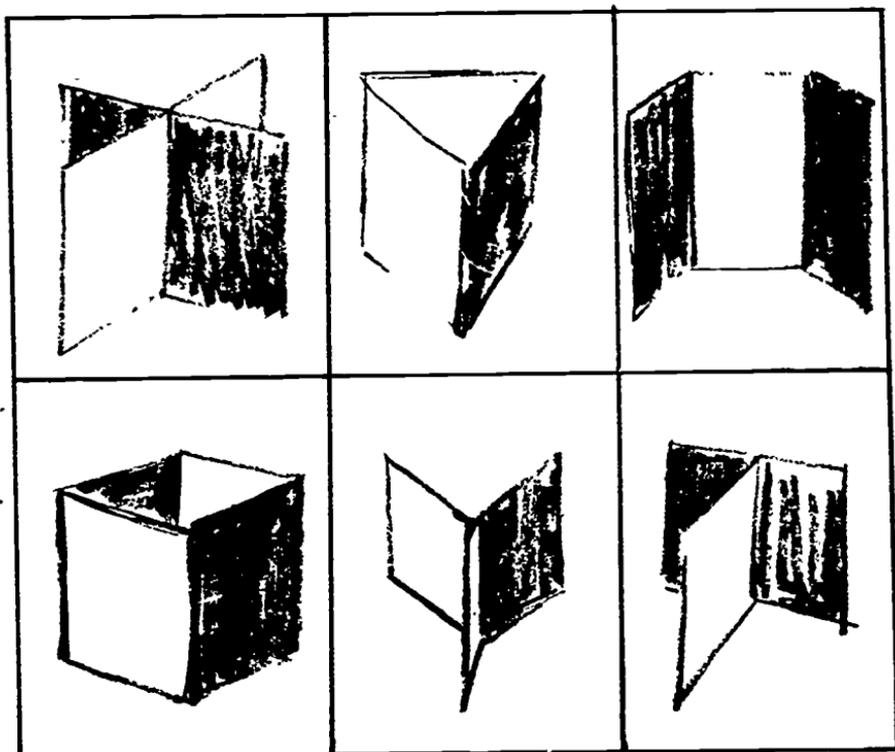
1. Consider the amount of time you are prepared to spend on display building. If you spend a few hours in planning your display, you can save several days in actual construction time.
2. Decide to do something simple. Attention getting and holding are important points. A well-organized presentation of material, one photograph or illustration surrounded with adequate space, is more effective than an area crammed with material.
3. Decide exactly how much money is to be spent on the project, and try to keep within this budget. Spend the money on two or three major constituents and the rest on consumables: paint, glue, paper, tacks, etc.

Gather scraps! In this time of ecological concern, you can do your bit to recycle materials. Being a chronic pack rat helps.

Enough about what to do; here's how to do it.

### The Vehicle

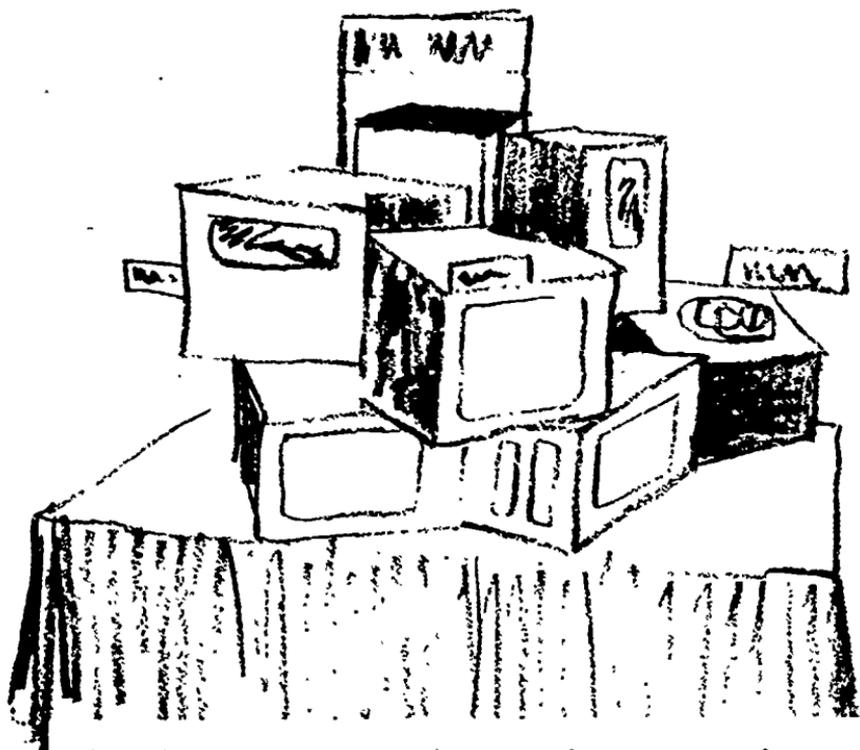
The basic unit of any display is the vehicle, or, what the information or material is arranged on. Obviously, the vehicle can take any shape, size, color, texture or design you can think of.



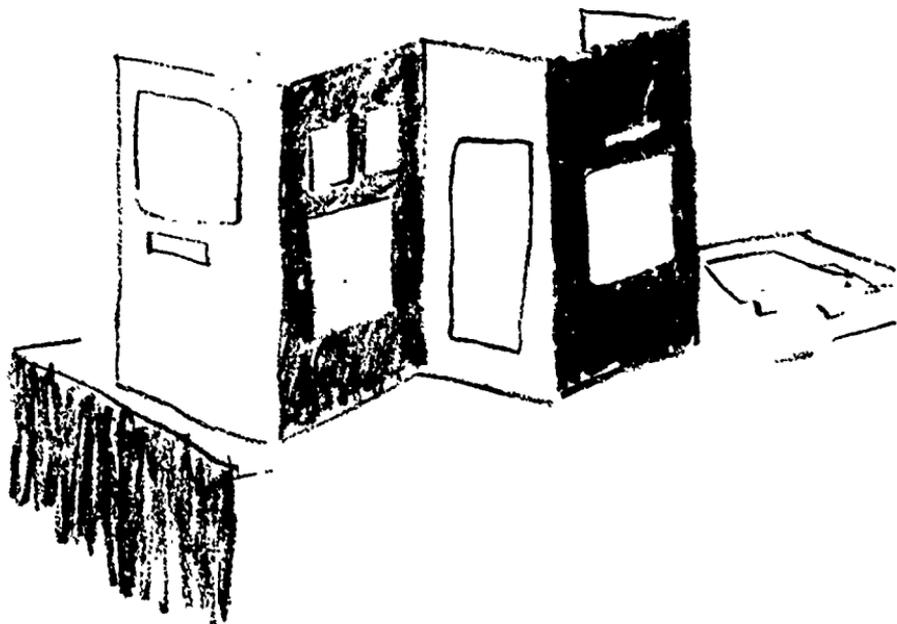
The arrangement and general shape of the vehicle is limited only by your imagination. Here are some suggestions to get you started: "island" arrangements are useful when a table or stand can be positioned so that traffic will flow on each side. The "X", the triangle, and the wing, cube, "Y", and "T" are the simplest, least expensive, and they can be any size or proportion. Materials can be mounted on each of the faces, or they can be arranged in groups to enlarge the overall display area.

### Table Toppers

Table toppers are simply displays that are arranged on the top of a table, rather than being constructed from the floor up. This display is used when many exhibits are planned for a small area affording little space for any one display. In planning a table top arrangement, many designs may be explored: the accordion fold, the stacked pyramid and, again, the wing are suggested.



If table toppers are chosen, give some serious thought to proportion. These seem to work well: the horizontal display should be about one and one-half to two times longer than its overall height; and the vertical display should be one-third to two-thirds higher than its overall width. Generally these displays have one side and two ends available to traffic, while the rear is used for stowage of extra supplies, brochures, bulbs, tools, and such.



### The Accordion Fold

The accordion fold lends itself well to displaying building because of its automatic free-standing characteristics. If this format is selected, be sure to make the faces wide enough, in proportion to the height, to support the overall structure.

Each of the elements, or faces, of this display can be taped together with bookbinding tape on the back. Allow a small space between each face so the tape will act as a hinge. If a heavy material is used for the faces, use door hinges or a continuous hinge, lengthwise.

### The Stacked Pyramid

The stacked pyramid utilizes scrap lumber or cardboard boxes arranged in a pyramid. The arrangement is then covered or draped with felt or burlap; materials are then displayed on the various levels.

### The Wing

The wing is similar to the accordion fold except that it contains only three faces rather than several. It can be constructed in the same manner. Two faces can be used in an open book manner. Most of the listed fastening devices will work here; again, if heavier material is chosen, use hinges.

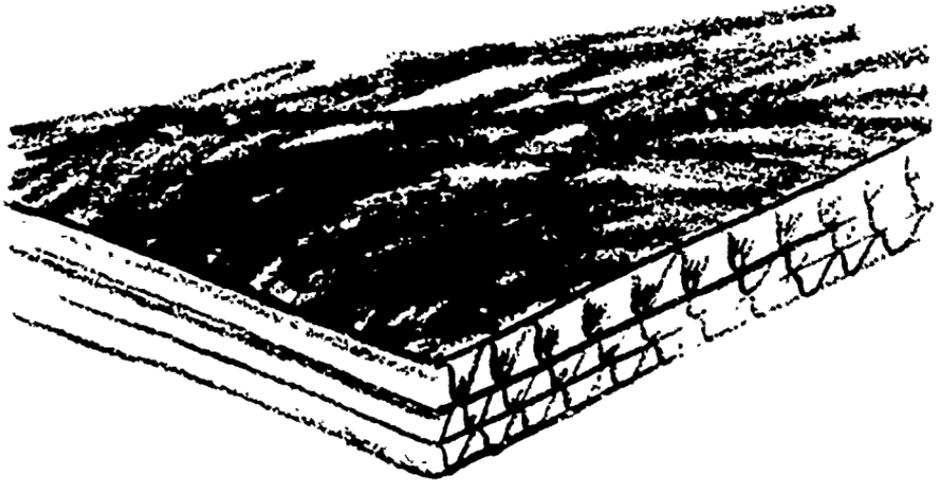
# 2

## CONSTRUCTION MATERIALS

The materials used to construct the vehicle can be anything that will stand straight, is easily cut, painted or covered. Some of the roughest mill lumber, if properly covered, can be transformed into a handsome display.

### Tri-Wall

Tri-wall is a three-ply corrugated cardboard. It is as workable as plywood and is about one-eighth the cost.



Tri-wall is available in 42"x54"x3/8" sheets from Tri-Wall Containers, Inc., Plainview, New York (page 45). Tri-wall is easily cut and shaped with a saw or knife.

### Homosote

Homosote is a building material made from compressed paper fibers and a filler. It is especially useful if large areas are needed for displaying prints or photographs. It is available in 4' x 8' sheets at most building supply stores.

## Styrofoam.

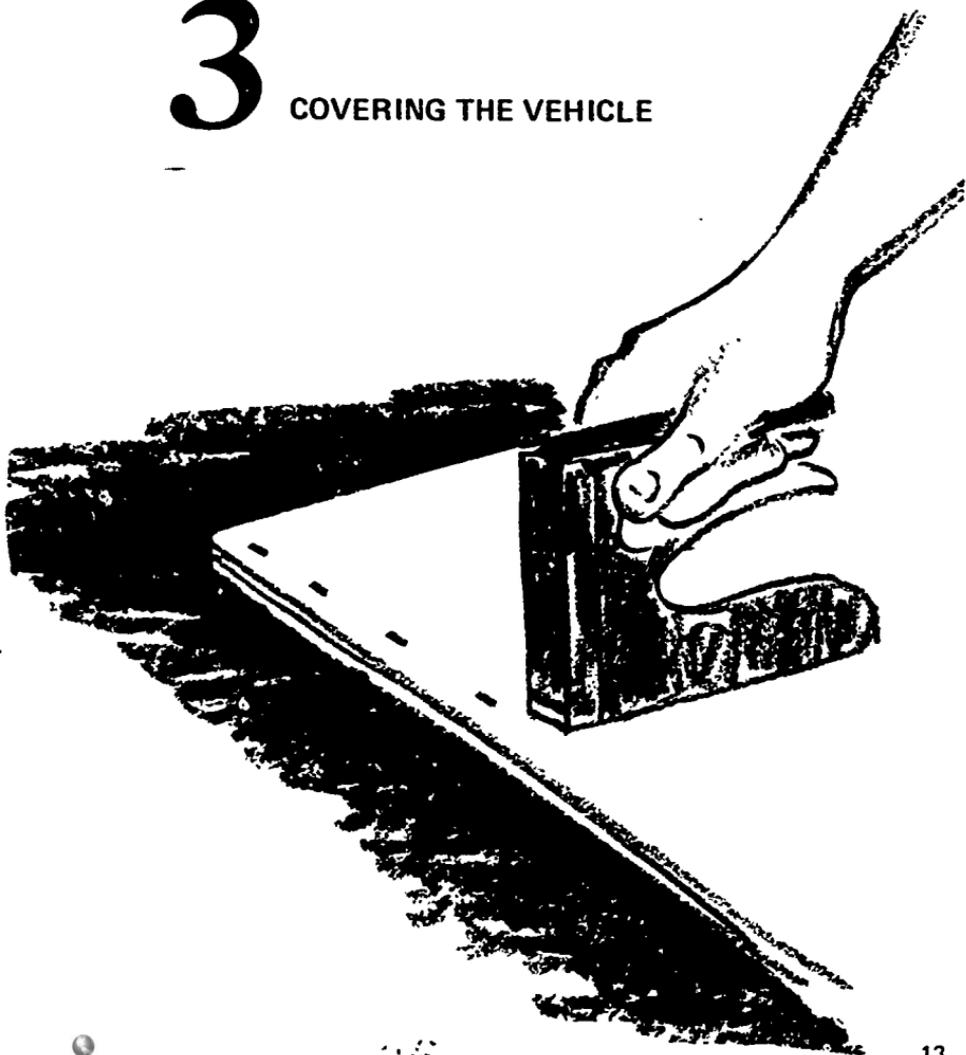
Styrofoam is another building product, designed to be used as an insulation material. It is porous; it also can be cut and shaped with a knife or saw. Styrofoam is available in various thicknesses and sheet sizes; it is particularly valuable when weight is a factor.

## Cardboard Boxes

Here is the pack rat instinct. Cardboard boxes are the most forgotten, best utilized material for displays available. They come in almost any size and shape you can think of. Many of these valuable display materials are destroyed daily by your local supermarket and district's warehouse. Infinite numbers of designs can be made by arranging these boxes on a table top. Stacked, intersected and glued together, they can be as dynamic as any professional display. Covered with colored card stock or painted, they can be used to display a series of photographs, brochures, or realia. Also, a hot-melt glue gun cuts time and energy in the construction of this type of display.

# 3

## COVERING THE VEHICLE



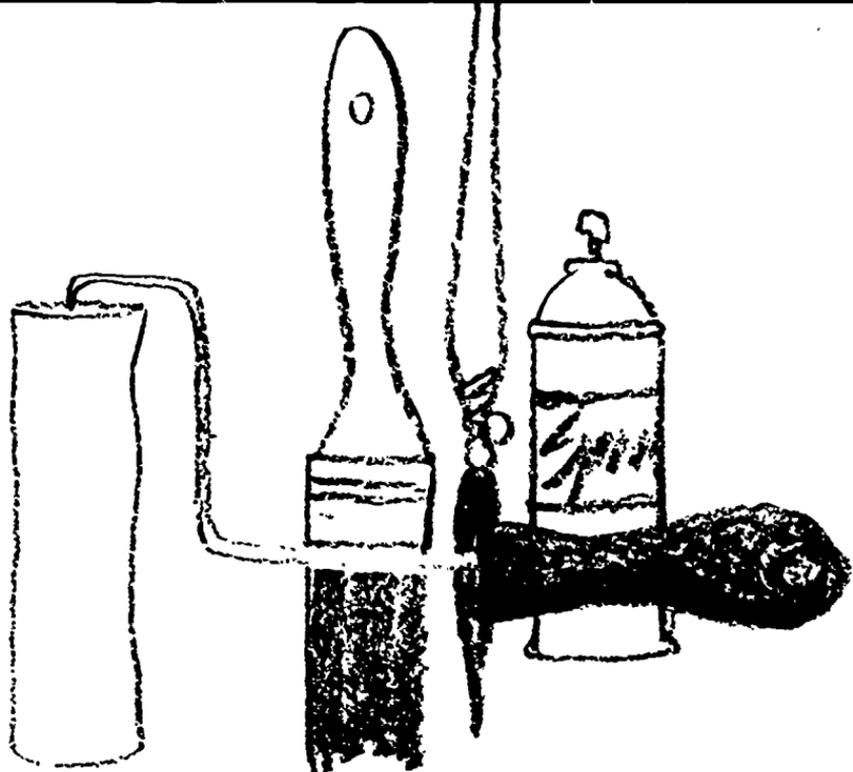
Depending upon what you have chosen for the basic construction material for your display, there are many materials that can be used to cover the structure. Burlap, Monk's cloth, and muslin are coarse fabrics that lend themselves to this application. They can be mounted to the background by stretching and tacking, stapling, or by applying several coats of diluted Elmer's glue.

### Felt

Felt is available at most fabric shops in a wide range of colors and widths. It is probably more workable than burlap or other woven fabrics simply because it does not unravel when cut. Felt can be utilized in many ways within a display. Small geometric patches can be used as accent spots and larger sections can be used as a background covering material. Visual material can be pinned to it easily with little visible damage.

Inexpensive latex paints are available to paint your background. Stay with dark or muted tones for backgrounds, particularly when photographs are to be mounted in this area. Application of paint can be in any normal way; roller, brush or spray. For a textural effect, mix a finely ground sand with the paint.

Color should be coordinated in such a way as to pull together the general theme of the display. A kaleidoscope of color usually tends to confuse the issue. Color can be held to two, three or four complementary shades or even variations of a single color. Warm colors--reds and oranges-- tend to project or stand out; cool colors-- blues and greens-- tend to recede. Warm colors can be used to draw attention to the more important features of a display. Cool colors are most effective when used together. Black and white command respect in their use. Too much white tends to be boring or passive.



Some experiments with white on white have been successful but, you are better off leaving this to the professional. Black can be effective in accenting other colors.

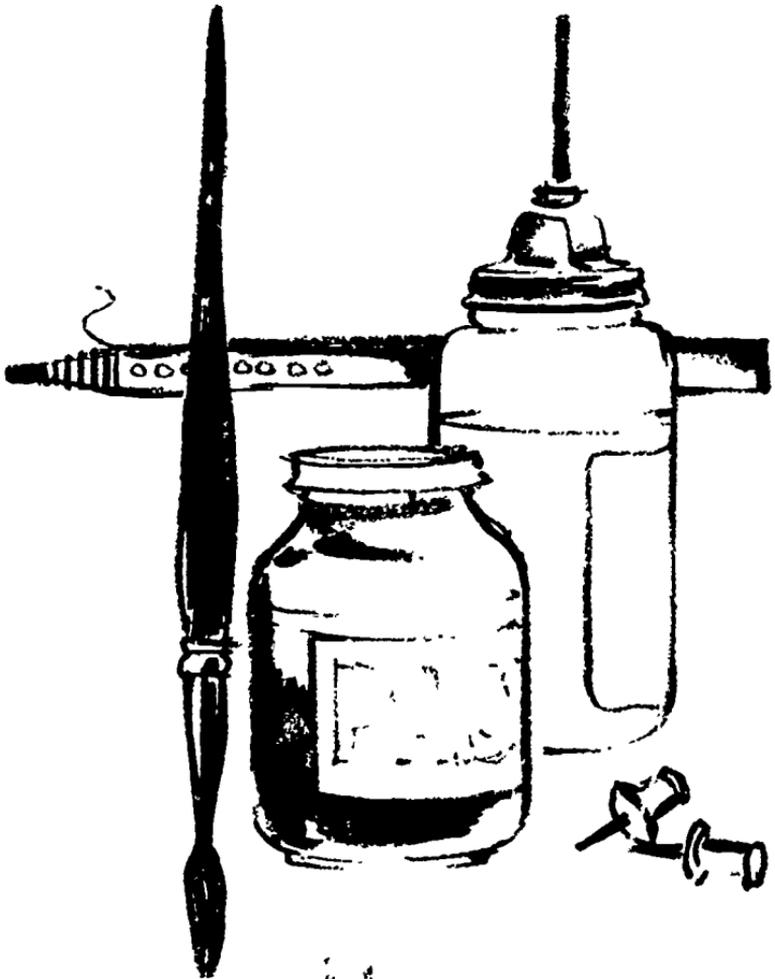
Metallic color and coverings can be used as "light thieves". A light thief is a part of a display that "borrows" or "steals" light from an ambient source; they produce no light themselves as would a spotlight. A piece of aluminum foil, a scrap of chrome or a mirror, well placed, can make an area of a display glitter with light.

# 4 MOUNTING DISPLAY MATERIAL

Once the vehicle is constructed and covered, you face the more critical aspect of mounting and arranging the material. A number of choices are available to you.

## Mounting With Glue

Since most of the mounting you will do will be of a permanent nature, any of the "white" glues available are very satisfactory. They dry clear, and there is no need to worry about a little oozing around the edges. Usually they can be cleaned up with a wet towel. If you need to bond nonporous materials, Duco or a styrene glue works well: both also dry clear.



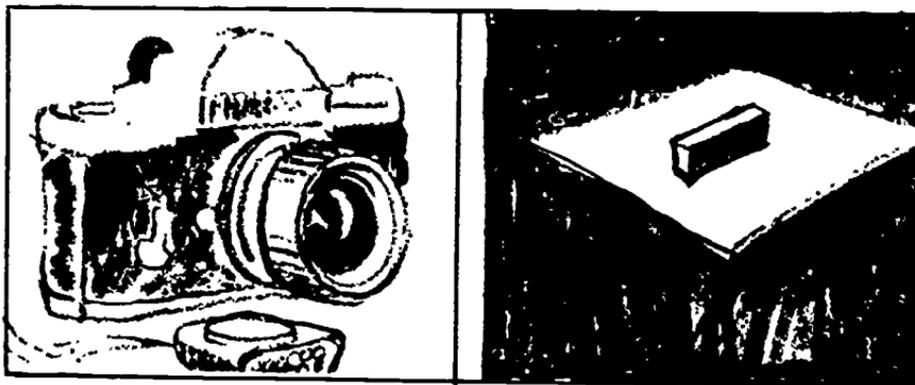
A great asset in any gluing operation is a hot melt glue gun. This inexpensive gun uses a glue stick, which, when heated in the gun, flows on to the material at a touch. Two different types of glue are made for use in the gun: a white glue, similar to Elmer's, and a resin glue which is brown when dry.

A word of caution on glue guns: they operate at fairly high temperatures, and the glue is very hot when applied. Also the glue cools rapidly, and there is not much time to position materials.

Double faced tape may be used to mount photographs, brochures or pamphlets. It has an adhesive applied to both sides and may be used effectively to mount lightweight materials.

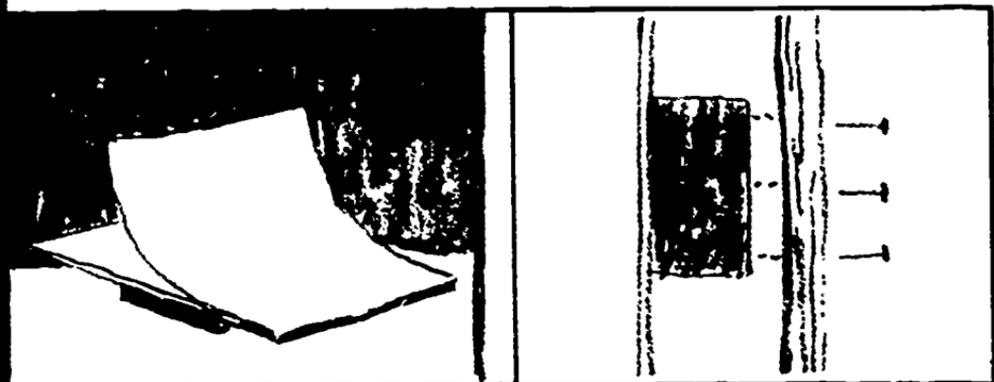
## Mounting Photographs

One picture IS worth a thousand words, so when choosing photographs for a display make sure your choice truly carries your message. Spend some time editing display photos and check for effective lighting, composition and subject matter.

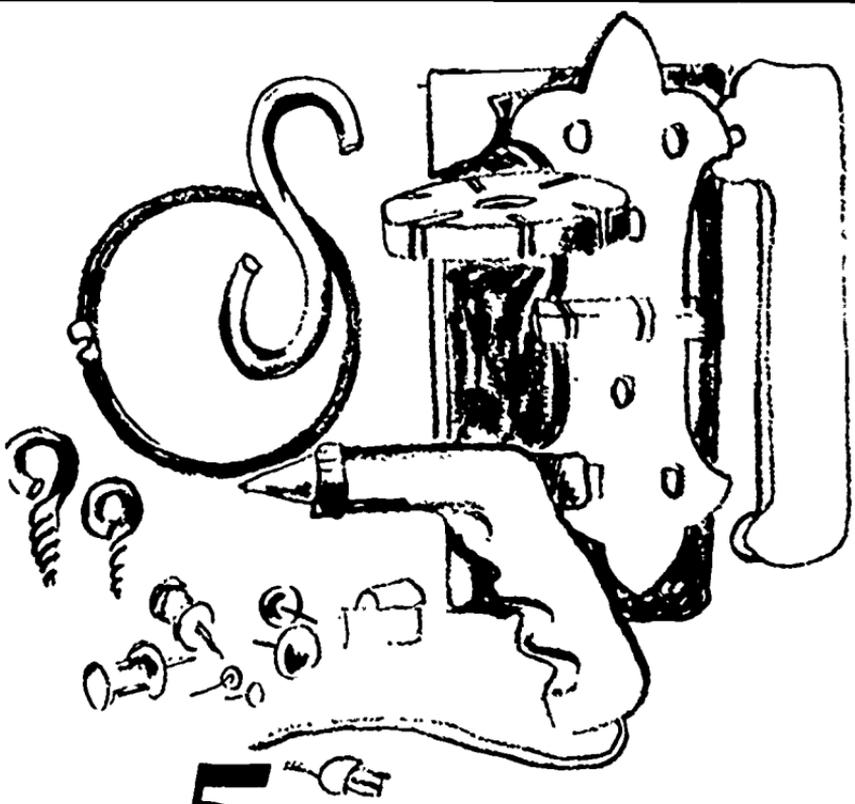


Many methods can be used for mounting photos, but rubber cement is probably the easiest and least messy. The mount can be of several types of materials, such as cardstock or masonite. It may be the same size as the print (flush) or larger (border). Apply a coat of rubber cement to the back of the print and to the face of the mount.

Since the rubber cement only sticks to itself, carefully position the top edge of the print along the prepared area of the mount and press down. Lower the rest of the print onto the mount and press. In this process the use of a "slip sheet" is recommended. The slip sheet is placed between the photo and the mount while positioning, then removed slowly as the print is pressed down.



Mounting photographs to a background can take many directions. If you have mounted prints on masonite as explained, you may then wish to glue them to a series of 1 x 2 x 3 inch blocks of pine scraps. Attached to your display vehicle they will add depth.



## 5 PORTABILITY

Along with planning your display, keep in mind portability. You have heard the story about building an airplane in the attic... the same applies to displays. Whether the display is to be transported to another building or another state, portability is of prime consideration. In planning, try to design the display so that it can be handled in several smaller units. Here are some hints on making things

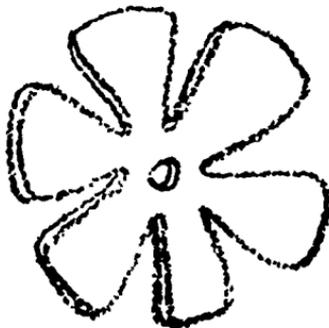
more portable.

## Fasteners

A trip to your local building supply store will yield many ideas. Look at the selection of hinges and fasteners. There are several different types of hinges available, each with a specific purpose. There are several types and sizes of door hinges. Some fold or rotate 180 degrees, some only 90 degrees, and some a full 360 degrees. Usually the 360 degree hinges are better because they can give a wider range of angles if they are used in an accordion-type display. Several hinges are made with a slip-pin arrangement. This means that the hinge-pin can be removed and the display transported in smaller units. Several hinges are made with a pin in one half and a hole or hollow shaft in the other. These work like the slip-pin hinges except the chance of losing the pin is nil. Piano hinges are longer and thinner than a door hinge. They are good for light weight materials and are more stable than a regular door hinge.

Various other fastening devices can also be made. A scrap wooden block can be slotted at right angles with a saw, the same thickness as the pieces to be attached. These are simply pushed onto the cardboard, or whatever is to be supported. These little blocks can be used to attach the sides or back of a display to one another.

Another clever fastener is a small wooden or plastic disc that is slotted (to the thickness of the pieces to be joined) at various angles.

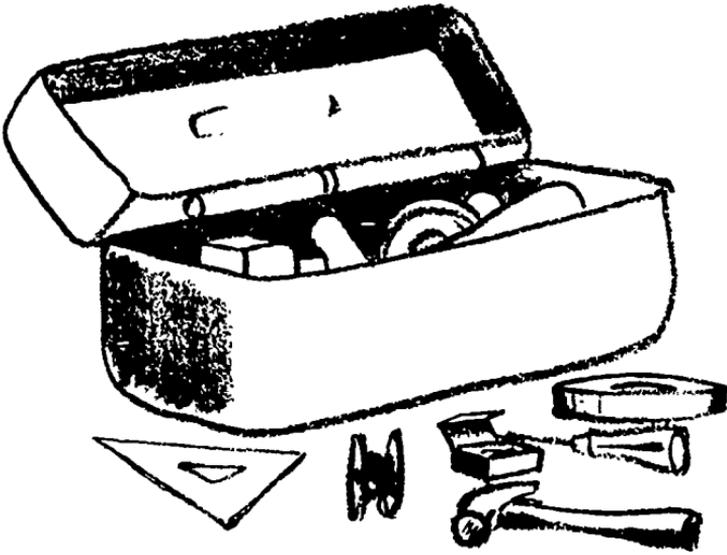


Probably the simplest and most efficient type of hinge or fastener is the lowly loose-leaf notebook ring. They are available in a large range of sizes, and a simple punched hole in two pieces of thick cardboard is all you need to set up the simplest display.

Velcro, a hook-and-loop material, is useful to make a display easily changeable. A piece of the hook material is glued to the back of the object to be mounted then a piece of the loop material is placed in a corresponding position on the backing board. Velcro should be used for light weight material.

A small tool kit should accompany any display. The following list is suggested: a hammer, nails screw drivers, screws, pins, tape, wire, paper clips, tacks, wooden shims, glue, extra projector bulbs, staple gun and staples. It should contain supplies that would help rebuild any major constituent in a display should disaster strike.

Ductite or "gaffers" tape is a handy item to have in your kit. It is a very wide, very adhesive asbestos tape used to wrap hot air ducts. It is used in the motion picture industry for everything from repairing electrical cables to holding lights in place. Ductite can be used where masking tape would never hold. It can be used for hinging cardboard together from the back; it is virtually invisible.



# 6 LETTERING

**Letraset U.S.A.**  
INCORPORATED

*instant lettering* <sup>TM</sup>

SPACEMATIC

AA AA A  
BBCC C  
EEEE E  
FF

There are numerous lettering aids available to the aware display builder. All are designed for readability and ease of application. Punch-out letters are available at most well stocked stationery stores or from the larger art supply houses. These letters come in various sizes and styles and are adhesive-backed. They are reusable if applied to a nonporous surface. Otherwise, they are quite permanent. "Instant-Lettering" is a brand of rub-off lettering. It comes on a sheet containing the alphabet repeated several times in a specific type face and size. Hundreds of different type faces and sizes, ranging from Old English to Helvetica Medium and from 1/8" to 2" in height, are listed in the catalog. Burnishing positioned letters instantly transfers them to the paper, cardstock, glass, metal or what have you. Spacing is critical, but built-in guides printed on the sheet will help you.

Experiment with some quick sketches to determine exactly where the letters are to be positioned because once they are burnished they cannot be removed without being destroyed.

Another lettering aid is the basic Primer typewriter. It can be used to type labels for small objects or cards describing a sequence of events.

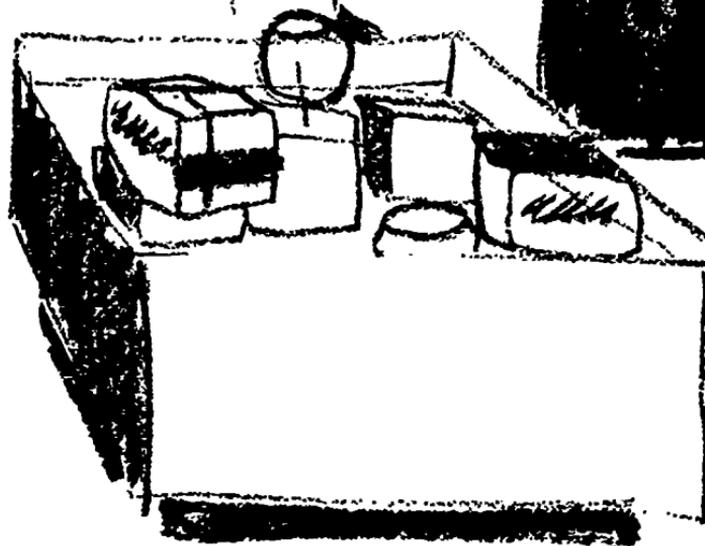
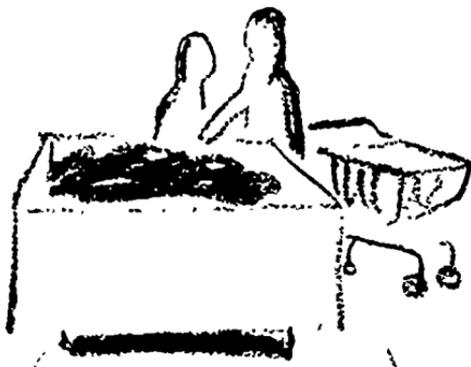
In the way of three dimensional letters the Hernard Co. (page 46 ) manufactures letters of a plaster-plastic blend. They are about 1/4" in thickness and come in several styles and sizes. These letters are adhesive backed and reusable. Originally designed for home-movie and slide titles, they work very nicely on bulletin boards and temporary displays.

If you are good at hand lettering, the wide tip felt pens from Primark (page 46 ) can be used in lieu of showcard paint and brushes; they dry instantly and brilliantly.

A casual or script style is preferable to a very tightly drawn letter. Observers with a keen eye for typography will be turned off by a vain attempt at printed letters. If you do print, don't mix type styles, don't mix upper and lower case letters in the same line, and stay away from serifs.



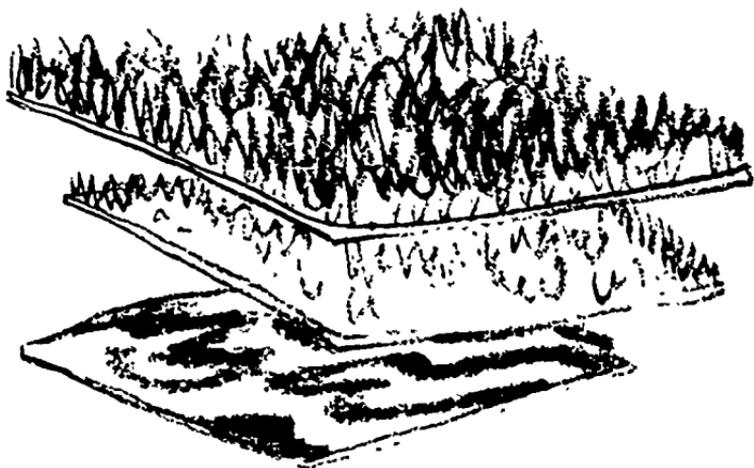
PAIN  
BRUSH  
FIX



# TURES

## 7 THE SCRAP PILE

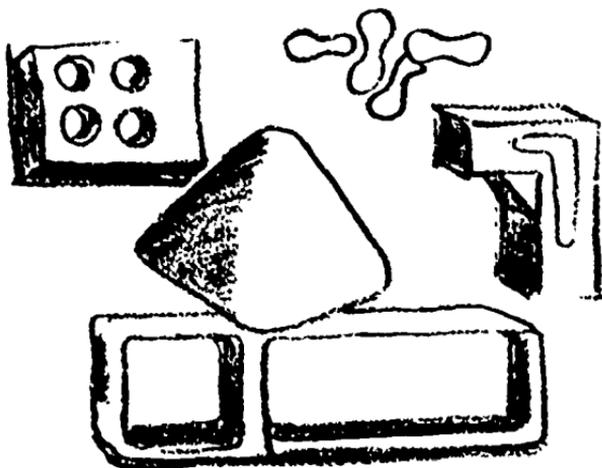
One must approach this area with blind abandon. Sometimes it helps not to know just exactly how an item is to be utilized, but rather that it possibly has some use as a primary unit in a future display.



Scraps are the least expensive and probably the best utilized materials for display construction. A visit to a local carpet shop will yield many useable items. Long cardboard tubes, used in packing rolls of carpet, can be utilized for background supports in a tall display. Carpet remnants can also be used as an accent patch under important items; they add color and variety. Some of the larger remnants can be utilized as table coverings or background covering.

If there is an "unclaimed freight" or "damaged-in-shipping" outlet in your area, they are good suppliers of inexpensive latex paints, brushes, rollers, tacks, nails, and such. Most of these operations work on an availability system, so several trips during the course of a month will help bolster your stock of items and materials for future displays.

Your local supermarket is an excellent source for cardboard boxes and periodic special displays. Contact the manager personally. Often aisle-end displays are simply destroyed, and he may be persuaded to hold one for you. These displays are an excellent source for ready-made vehicles, and they can be covered with a variety of materials, such as contact paper, colored paper, card stock or latex paint.



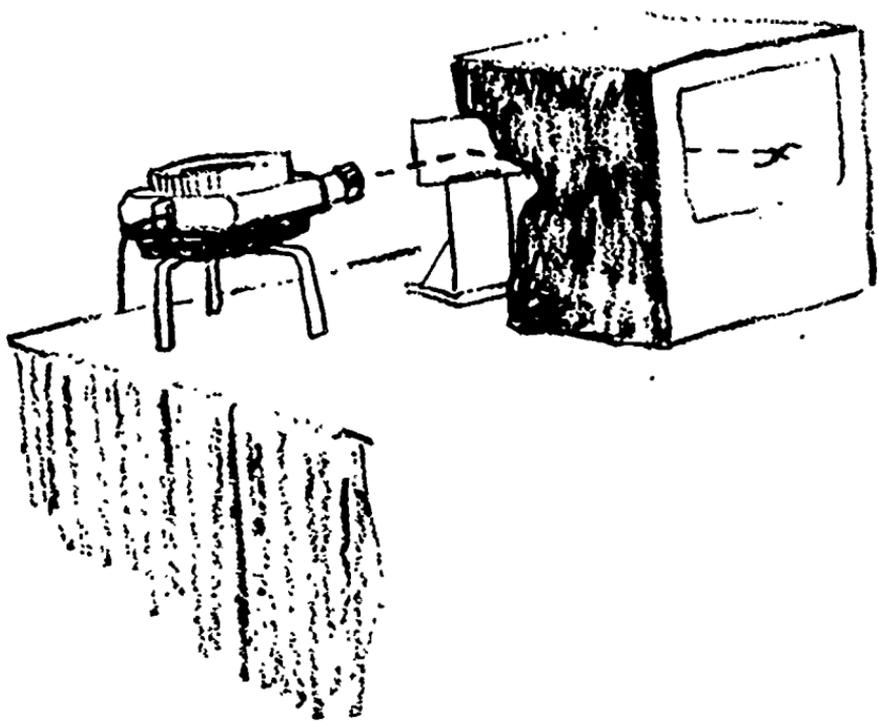
Styrofoam packing spacers are usually available from small appliance dealers, radio shops or your own District's warehouse. There are few glues that work well with these units; however, tacks, long pins, and double faced tape usually get the job done.

# 8

## GENERAL RECOMMENDATIONS

For the most part, audio equipment is not recommended for displays of the type we are talking about. If the display is to be housed in a large room along with other displays and a fairly large traffic volume, the equipment is competing with the overall hum of the public. If sound is to be used, select some low-key music as a background and leave it at that. If the display is to be manned, people will naturally gravitate to a more personal contact for some explanation rather than be burdened with standing and listening to a canned program from a pair of headsets.

Visual equipment is another story; here is where a display can sparkle. There are scads of projectors for virtually every size material. Overheads and opaques are not recommended here from an operational and portability stand point. Movie or slide projectors are easily incorporated into displays via a rear projection screen hidden by the rest of the display.



The material chosen for these projectors should come under the same detailed evaluation as other material. Automatic filmstrip projectors also are good units to use for a "hands-on" contact by the public. Remember to bring plenty of extra bulbs and several well labeled extension cords. Stay away from television, unless you have the proper experience in repair and a portable power unit. Most display areas are short on electrical outlets and load ranges. Remember: "If there is something to go wrong, it will." Be prepared!

## Handouts

Some sales psychology is an advantage. After spending a good deal of time in the design and construction of a display that attracts people to it, it is a good idea to give your patrons something. Most of the displays that are crowded with people are the ones that are well done, but beyond that, they are giving something away. Displays should be manned at all times, not only to dispense your printed material or "gimmick", but more important, to keep an eye on any material or equipment that is not intended to be taken from the display. Gimmicks -- bags, buttons, stickers or pins can be made or supplied by a novelty wholesaler quite inexpensively. If it is possible, display only those pamphlets or booklets that are intended for public distribution. Otherwise, mark all documents "For Display Only" (in letters six feet high!)

There are many methods of duplicating materials inexpensively, and these should be explored to the fullest extent. Offset, mimeoed, or dittoed sheets, giving brief explanation of the project or program is sufficient.

### People You Should Get To Know

The following are key people with whom to establish good rapport: your Art Supervisor, Industrial Arts Supervisor, Maintenance Supervisor, Warehouse Supervisor and your Federal Aid Coordinator. They can help you decide what materials to use and where they are available. Your Warehouse Supervisor, if asked nicely, will save styrofoam packing and boxes for you, and your Industrial Arts or Maintenance people can supply you with wood or Plexiglas scraps.

Hopefully this booklet has enlightened you to some aspect of display building that you may not have thought about. There are many commercial display builders that will design and build any type of display that you can think of, but remember, they will have had all the fun.

## BIBLIOGRAPHY

- Bulletin Boards, George F. Horn, New York,  
Reinhold
- Bulletin Boards and Display, Reino Randall  
and Edward C. Haines, Wor-  
chester, Massachusetts,  
Davis Publications
- Design in Three Dimensions, Reino Randall  
and Edward C. Haines, Wor-  
chester, Massachusetts,  
Davis Publications
- Display and Exhibit Handbook, William Hayett,  
New York, Reinhold
- Educational Displays and Exhibits, J. Preston  
Lockridge, Austin, Texas,  
Instruction Bureau, Univer-  
sity of Texas
- Exhibit Methods, Jefferson T. Warren, New  
York, Sterling Publications

## APPENDIX

Anchor Chemical Products  
500 W. John St.  
Hicksville, N.Y. 11801  
Supplier of: Spray Adhesive

Arthur Brown and Co.  
2 W. 46th St.  
New York, N.Y. 10036  
Supplier of: Art, Drawing & Drafting  
Supplies

B. D. Company  
P.O. Box 3057  
2011 W. 12th St.  
Erie, Pa. 16512  
Supplier of: Cut Out Letters

Dick Blick  
P.O. Box 1267  
Galesburg, Ill. 61401  
Supplier of: Art Materials & Supplies

Bourges Co.  
84 Fifth Avenue  
New York, N.Y. 10011  
Supplier of: Cutout Adhesive Color  
Sheets

Brewster Corp.  
50 River St.  
Old Saybrook, Conn. 06475  
Supplier of: Display Supports &  
Flannel Board Supports

Centre Film Labs  
328 W. Beaver Ave.  
State College, Pa. 16801  
Supplier of: Film Processing &  
Printing

Eastman Kodak Co.  
Educational Products Div.  
Kodak Park  
Rochester, N.Y. 14600  
Supplier of: Photo & Film Processing  
A.V. Notes

Educational Materials and Services  
Tri-Wall Containers Inc.  
Dept. 1 One Buford St.  
Plainview, N.Y. 11803  
Supplier of: Tri-Wall

General Binding Corp.  
Bob Holmes  
1023 Fisk  
Scranton, Pa. 18509  
Supplier of: Lamination Materials

Hernard Mfg.  
21 Saw Mill River Rd.  
Yonkers, N.Y.  
Supplier of: 3-D Letters

Kurtz Brothers  
Clearfield, Pa. 16830  
Supplier of: School Art Supplies

Larson Enterprises  
18170 Euclid St.  
Fountain Valley, Cal. 92708  
Supplier of: Flannel Boards

Lectro-Stik Corp.  
3721 Broadway  
Chicago, Ill. 60613  
Supplier of: Mounting Clips

Parker Bros. Dist.  
40 Industrial Pl.  
New Rochelle, N.Y. 10305  
Supplier of: Photo Supplies

Primark Marking Co.  
33450 Western Ave.  
Union City, Calif. 94587  
Supplier of: Wide Markers & Pens

The work presented or reported herein was performed pursuant to a subcontract (SC40002ME81-370-03) from the Pennsylvania Department of Education acting as the State Educational Agency for the United States Office of Education, Department of Health Education and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the Pennsylvania Department of Education or the United States Office of Education, and no official endorsement by either should be inferred.