## <sup>27</sup>Chapter Twenty-Seven Point-of-Purchase Display



# AFTER YOU HAVE READ THIS CHAPTER, YOU WILL BE ABLE TO DISCUSS

- ♦ displays that are considered POP (point of purchase)
- ♦ reasons for the use of POP by retailers
- ♦ functions of a POP display unit
- ♦ the product categories utilizing POP fixtures and materials
- ♦ materials used in the design of a POP unit

Point of purchase (POP) has been around since long before the cigar store Indian sculpted out of wood, clutching a handful of tobacco leaves, and garishly painted in green, red, and gold. It stood outside cigar stores and tobacco shops announcing to one and all on the street that tobacco products were sold just inside. Point-of-purchase signage probably goes back even further than the Middle Ages, when red cylinders bandaged in white announced the presence of the barber and bloodletter in the community. A walk down the crooked, cobblestoned streets of Salzburg, Austria, is a walk through two or three centuries of POP signage: three-dimensional objects that proclaim a product or service and even suggest its quality. Thus, there are giant keys hanging over the locksmith's shop; gilded pretzels call to those seeking a bakery, just as the giant violin would entice a musician in search of a violin maker. For those who never learned to read—or those who could not make out the words from a distance—these giant replicas provided the information.

Figure 27.1 To promote the new Blossom line of toiletries in the Victoria's Secret Beauty stores, the company went all out with printed banners on translucent fabric, cardboard counter cards, and special tie-in shopping bags. These all carried the cherry blossom graphic art that appeared on the packages of the new line. The pink table covers and sprays of artificial blossoms helped carry through the pink-to-red color scheme.



Victoria's Secret, Water Tower, Chicago.

Point of purchase has become in recent times a complete and convoluted industry. It is display, fixturing, store design, and advertising all in one. It is the total image fabrication of a product; the attraction to the product as well as the provider of the product on the selling floor. It is the "shill" that stands out front and invites the shopper to come inside, where the product is on view. It is the silent or not-so-silent salesperson who points out where the product is once the shopper is inside and it also explains what the product is all about. Point of purchase also stacks, stocks, holds, and coordinates the product or products in a manner that both enhances the unit(s) and is convenient to the shopper. This full range of service to the shopper and the promotion of the product has made the POP industry the biggest and fastest growing extension of the display/fixture and advertising industries. In 1996 the total expenditure for POP advertising, signage materials, and instore media provided to retailers by the vendors was in excess of \$12.7 billion dollars.

# <sup>27.2</sup> What Is POP?

Point of purchase used to be synonymous with "impulse shopping." It was associated with merchandise sold at the checkout counter or the cash/wrap desk; the prepackaged, boxed, and shrink-wrapped items the shoppers didn't really need but were intrigued enough to pick up and buy. Today's POP is much more than the neon-outlined clock, the guzzling beer running from bottle to glass and back forever captured in a bas-relief of plastic, or the cardboard box that opens into a "dump truck" carrying a load of candy bars.

POP units can be displays, displayers, fixtures, and auxiliary items provided by the vendors or manufacturers to the retailers who stock and sell their products. The displays, fixtures, and assorted signage can appear outside the store—in the windows—and inside the retail setting on ledges, counters, shelves, or the selling floor or suspended from the ceiling. The POP displays and fixtures can be made of cardboard, paper, wood, plastic, and metal, or any combinations of these materials.

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Figure 27.2 POP materials can be sent to numerous retail spaces of the same company—or wherever the products are sold—to announce a promotion or carry a special message. As shown in this installation at a Verizon Wireless store, the strong red paper elements create a dynamic overall look in the store and tell a story. The red streamers indicate where the interactive POP displays are located.



Verizon, South Bend Indiana. Design: JGA, Southfield, Michigan.

More often than not, a POP unit is not designed to exist by itself but is part of an overall promotion or scheme that can involve dozens of coordinated elements—each located and doing its work in another area of the retail setting. The coordinated units are designed to promote the product or brand name, the customer's self image, the image of the product, the advantages of the product over others similar to it, and the eventual stocking of the product. The campaign or promotion can run the gamut from posters, cards, and banners, to counter or ledge displays, to mass merchandising fixtures on the floor. (See Figure 27.1 and 27.2.)

#### <sup>27.3</sup> Why POP?

Following are some of the reasons for POP promotions and the use of POP materials:

- 1. The appearance of the sign or display in the retail setting where the product is available, can and does often encourage the consumer to make an on-the-spot decision to purchase.
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- 2. The sign or display flags the shopper—gains attention—and brings the consumer to the product.
- **3.** POP not only enhances the product's image or its timeliness when part of a special promotion, like Halloween/Easter/Fourth of July, but can serve to explain the product and thus inform the shopper.
- **4.** Coordinated promotions can stimulate the consumer to buy not only the product, but also other products that are being promoted along with it, such as combining a soft drink or beer promotion with snacks like nuts, pretzels, or potato chips.
- 5. The POP display or sign can reinforce a price message—or stimulate an immediate action response from the consumer because "now" is the time to take advantage of a special promotion, a giveaway, a contest, and so on.

Therefore, POP displays and designs

- attract attention to the product
- promote or reinforce brand name recognition
- ♦ show and explain the product; educate the consumer
- answer relevant questions: price, size, applications, and so forth
- ♦ hold or arrange stock for the shopper's convenience
- ♦ increase sales by coordinating items—or by "impulse sales."

## <sup>27.4</sup> Who Uses POP, and Where?

There are several major markets and manufacturers in those markets who are the most frequent purchasers of POP. They, in turn, give the material to the vendors to promote and sell their products. These groups are recognized by the **Point of Purchase Advertising Institute** (**POPAI**—pronounced "popeye"), an important industry organization of manufacturers and producers of POP material and purchasers of POP products. Following is a brief list of products within each market:

**Food and paper goods**—Frozen and fresh foods, foods packed in cans, cases, cartons, tins, bottles, and bags. Anything from deli to salad dressings, from cake mixes to dog treats and snacks. Paper towels, napkins, picnic plates, soaps, cleaners, and detergents also come under this category.

**Transportation industry**—Automobile showroom displays, gas and petroleum products, workstations, car accessories, tires, batteries, hubcaps, cell phones, and so on.

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**Personal products**—Shoes and shoe care, sportswear, active sports clothing, sneakers, sports equipment, bodybuilding equipment, eye fashions, costume jewelry, watches, pens, and related items.

Figure 27.3 This durable, functional, and restockable Coppertone self-standing fixture incorporates a changeable message board on top. It fits into the vacuum–formed, castlelike construction. The unit is double sided so that it can hold many products in its narrow footprint.



Design: Design Display Group (DDG), Carlstadt, New Jersey.

Figure 27.4 The rotating floor unit makes self-selection simple. In addition to containing "how-to" booklets, color charts and samples, and even brushes, the unit is filled with small bottles of premixed Benjamin Moore paints that shoppers can use to try the colors on their walls at home. The curved metal handles make rotating the fixture easy, and more than one person can use the displayer at the same time.



Design: Design Display Group (DDG), Carlstadt, New Jersey.

Beverages—Beer, soda, soft drinks, liquors, wines, and other such beverages.

**Health and beauty aids**—Shampoos, hair products, skin care, vitamins, over-the-counter drugs, cosmetics, toiletries, perfumes.

**Hardware/building materials**—Lumber, roofing, insulation, paints, lighting fixtures and lamps, wood flooring, carpeting, doors, cabinets, and related items.

**Services and unclassified**—Fast-food operations, lotteries, educational products, books, paperback books, vending machines, games and toys, airlines, cruise lines, hotels, travel, lawn care, and so on.

**Household goods**—Garden supplies, dishes, pots and pans, coffee brewers, baking equipment, tools, TV, radios, VCRs, home entertainment, lawn and patio furniture, kitchen fixtures, and similar products.

**Tobacco**—Cigarettes, chewing tobacco, and related products.

Considering the previous breakdown, it is apparent that POP signs, displays, and fixtures appear most frequently in the following retail outlets:

- Markets/supermarkets and hypermarkets
- ◆ Convenience operations
- ♦ Mass merchandisers, such as Kmart and Wal-Mart
- ♦ Home improvement centers
- ◆ Drugstore chains and pharmacies
- ◆ Department and specialty stores
- ◆ Wine and liquor stores/packaged goods stores
- Sporting goods operations
- ♦ Office supply outlets
- ♦ Bars, taverns, cafés
- ◆ Automotive aftermarkets: service centers combined with auto showrooms (See Figures 27.3–27.5.)

# <sup>27.5</sup> POP Longevity

POP units can be permanent or semipermanent, temporary or promotional. Depending on the product's quality, styling, and end use, a POP counter display or store fixture can be constructed out of wood, wire, or plastic and be expected to last for a year or more in a drugstore or mass-merchandiser operation. A permanent fixture displayer may be considered when the product is not likely to change in design or in packaging very rapidly or when it is a more costly item than an impulse item. A permanent display may show off products like watches, fountain pens, samples of wood flooring, tires, or vacuum cleaners. If a new product is added, or a design is changed, often the displayer/fixture design of a permanent unit is generic enough to accommodate the new product, or it is designed to be adaptable to possible changes of stock. The displayer/fixture will be more costly to produce, and there may be fewer units produced, but what

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is made to stand up to wear and tear for a year or so will be considered permanent for that expected period of time. Included in this category are also items like neon and acrylic etched signs, electric clocks, and illuminated menu boards.

Figure 27.5 The Sony POP fixture all but talks back to the customer. Shoppers are invited to try/test/sample/touch/activate and experience the numerous Sony electronic products set out on this handsome wood, metal, and plastic unit that serves as the focal Sony vendor feature in an electronics department.



Design: Design Display Group (DDG), Carlstadt, New Jersey.

The semipermanent fixture or counter unit is usually expected to be in use for about six months to a year, and though it is constructed to be rigid and tough, the materials may not be as fine as those used in a permanent fixture/displayer.

The temporary, or promotional, unit has the shortest life expectancy. It is designed to serve on the counter, on the floor, or on the shelf for a few weeks, a month or two at the most. Usually, it is a timely or seasonal piece that ties in with other media—such as ads or TV commercials. Promotional displays could be created for Halloween, the Super Bowl game, New Year's Eve celebrations, Easter, a new color palette of cosmetics for fall, or the introduction of a "new and improved" product in a new and unfamiliar package. There may be life-size cutouts, dump bins, banners, dangles, shelf talkers, buttons, brochure holders, take-one pads, sampling in store—all tied in with the single promotional theme. After the action or event is over, so, too, is the life expectancy of the promotional POP unit, which is often produced from cardboard, corrugated materials, or lightweight vacuum forming.

## <sup>27.6</sup> Designing the POP Unit

Before the designer can start the process of creating the desired unit, he or she must have the following information.

#### <sup>27.6.1</sup> PRODUCT

What is it? Who can and will use it? What is the target market or the customer base? Is this a new product—or a "new and improved" product? Is there a new formula—a new shape or size—or a new package? How is the product packaged? If this is not a new product, how has it been displayed before?

# <sup>27.6.2</sup> UNIT

What is this unit to do? Is it a display, a displayer, a stocking unit, a dispensing unit, a demonstration piece, a sign? If it is a display, will it be used on the counter, in a window, or on the floor? How many products will it show? Does the unit need to incorporate a take-one pad, a brochure or leaflet holder, a mock-up of the product?

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If it is meant to contain and show stock on the selling floor, how many pieces of product will be supported? Will the unit have only one product, or does it have to show off a line of products; for example, a line of hair conditioners and shampoos designed for different types of hair or a selection of vitamins?

Where will this unit be used, and in what kind of setting: a supermarket, a drugstore, a department store, a café, or a convenience store?

## <sup>27.6.3</sup> TIMING

A very important element, not only in the designing of the unit, but in determining how the unit will be constructed or executed, is how long the unit is expected to function. Is the unit to be part of a special promotion event, something that will come and go quickly—something with a limited period of usage—or is it expected to serve for several weeks or a selling season?

Should this be a permanent unit that will be constructed of sturdy, durable materials that will stand up to the handling and traffic on a busy floor for an extended period of time?

Is the unit to be part of an advertising campaign and therefore relate to messages that will appear in TV commercials, in magazine and newspaper ads—and also include the same images that will be appearing in the other media? Is it a promotional piece for Halloween, a Rose Bowl game tie-in, a golf tournament, a Fourth of July celebration?

The amount of time the unit will be used will, to a large degree, affect how the piece is constructed: cardboard versus plastic, paper versus fabric, and so forth.

# <sup>27.6.4</sup> TIE-INS

The possible tie-in with an overall promotion was mentioned in the previous section. If the unit is to be part of an overall, all-inclusive promotion, like the launching of a new perfume or a Christmas campaign for a sparkling wine, what is the basic concept of the promotion? What images will be used? What copy or taglines? What promotional elements should be included in this POP unit? Who else is working on the promotion? What other POP units are being designed for the promotion? Are there magazine and newspaper ads being produced—TV commercials, radio spots, a celebrity tie-in, a new package being introduced, a color scheme, a graphic image? Just how much are you expected to conform to the other elements in the promotion? Very likely, you may be bidding on several related parts of the promotion, such as banners, streamers, counter or window displays, table covers, and so on.

## <sup>27.6.5</sup> END USAGE

What kind of store will the unit appear in? High fashion? Popular priced? A department store or specialty store or mass merchandiser? Again, referring to the target market, is this a specialty targeted market such as Asian, Hispanic, African-American, Irish (for St. Patrick's Day when everybody seems to be Irish)? Knowing the specific market, if there is one, can provide the designer with guidelines and parameters; certain colors may be more effective for one ethnic group than another and some designs or elements may be taboo (many Asians associate the number 4 with death, and in some societies white is a color associated with funerals).

# <sup>27.6.6</sup> PRODUCTION RUN

Of course, it is very important to know how many pieces will be produced. How large will the run be? What techniques will be best and most economical for that production number? Should it be vacuum formed or injection molded, lithograph offset printed or silk-screened? The size and number will affect the cost of the dies, tools, plates, and screens. If it will be a large run, then the dies and molds must be constructed of materials that may be more costly but that will hold up for the projected run and the large number of "shots."

## <sup>27.6.7</sup> SHIPPING

How are the units to be shipped? Where are they to be shipped, and in what stage of assembly? Will all the pieces be packed in several giant crates and shipped directly to the manufacturer/vendor and then distributed to several strategic locations before being sent to the retailers? Will the pieces be shipped unassembled, partially assembled, or fully assembled in individual cartons and sent directly to the retailer, timed to get there for the specific promotion, or will it go to another POP producer, where the units may be prepacked or have additional coordinated POP units added to these before being shipped? What kind of cartons or crates will be required? How big? How strong?

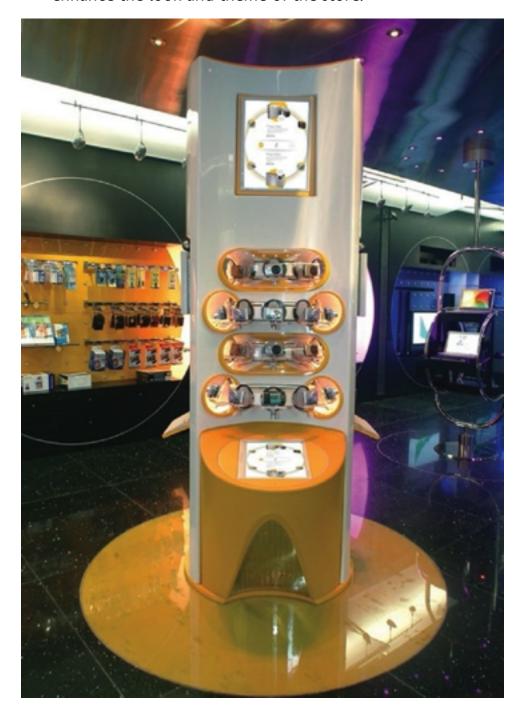
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## <sup>27.6.8</sup> LIGHT AND MOTION

Is this unit to be enhanced with light, motion, or computer chips so that the shopper will be able to interact with the product or the display and perhaps get special information? These elements add to the cost of the unit. How much can the unit be enhanced with decoratives, appliqués, and so on, before overcosting the unit?

Figure 27.6 The interactive POP fixture can be more than a fixture—it can be a decorative prop as well. In Zonik, a futuristic, out-of-this-world electronics store, the fixtures and POP materials are used to enhance the look and theme of the store.



Zonik, Dubai, United Arab Emirates. Design: Winntech, Kansas City, Missouri.

# <sup>27.6.9</sup> COST

And now—down to the basics: How much? You may not get a direct answer, but as a designer it does help to have an idea of the target market's price range while working in the design process and in selecting construction and finishing techniques. If no answer is forthcoming, look at the pieces that have been used in the past by this vendor for this product, "guess-timate" what it might have cost, and use that as a starting point. The designer does not have to be the estimator. The estimator is the person who puts all the probable costs and probable expenses together to determine a price per unit. It does help if the designer is knowledgeable about how much materials cost and what is involved in the various processes. In POP, thousands of units and nickels and dimes per unit can make the difference in getting or losing the job. If any field calls for care and efficiency in estimating and production, this is it! (See Figure 27.6.)

# <sup>27.7</sup> Specialists in POP Design

The POP industry, like many other fields in which there are technical processes and a complexity of materials, has its specialists. These are the authorities—the people who spend all of their time sharpening their talents and learning ever more and more about their specialties. These are the suppliers. These are the people who run the silk-screen operations, do vacuum forming and injection molding, the die cutters and the die tool designers, the casters, the molders, the printers, the stampers, the suppliers of papers and plastics. A good POP designer is not expected to be a specialist in every technique. However, the designer should understand what the particular technique or process will do and how it will do it—when it will be most effective and efficient; when it will be the best solution for the design—and the cost. But—the details, the little variations and adaptations of the actual process should be worked out in conjunction with one of these specialists or technicians who really knows how to make a mold or die, how to get the most out of the material, and how to make whatever process is used cost-efficient. These are the "tricks of the trade," and these specialists know it. In the end, the designer is only as good as the specialists he or she works with.

# <sup>27.8</sup> Materials Used in the Construction of POP Displays

Depending on the products, the intended use, the time it is expected to be on view, and the budget, the displayer or fixture can be made of a wide variety of materials: paper, cardboard, foam core, various thicknesses of wood, pressed board, plastic, or metal.

#### <sup>27.8.1</sup> PAPER AND CARDBOARD

Probably the most popular medium for POP units is paper. Paper can be used for signs and banners, especially when permanence is not of the utmost importance, but cost is. Paper is available in many different surface finishes and textures, in many thicknesses, and in a brilliant spectrum of colors. Paper can be applied, cemented, or laminated onto cardboard. Cardboard is also a form of paper and is available from thin pliable sheets to fairly rigid sheets, with a tremendous range in between. The thickness or density of the board—the ply—will determine how it is used in the POP program. Is it for a sign? Is it for a display or a brochure holder? Will it be a container and support several pounds of products on top of it? And if so, how much weight? Is the POP unit expected to be in use for just a week or two for a special promotion, or is it expected to be in service for a month or a season? The time the unit is to be used may also affect the ply of the paper or board.

There are also corrugated materials that are available in rolls and in sheets, in different surface finishes and thicknesses. Although lightweight, they do provide strength and support for units constructed out of them or reinforced with them.

Foam boards, though not paper, but rather a sandwich of two pieces of paper, with a filler of Styrofoam or some other foam material, appear on the market under a variety of trade names. Foam boards are produced in thicknesses that

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range from about ¼ inch up to 1 inch or even more. They are extremely versatile and dependable players on the POP production team because they can be die cut, scored, laminated onto, printed on, or used to construct small fixtures and displayers.

Paper is often flat—as printed sheets—but paper can be dimensionalized: folded; scored; cut into contoured shapes; cut and creased and folded into boxes, containers, or pop-up or pop-out displays; or appliquéd or layered for a dimensional effect. Paper products can also be embossed or treated to create three-dimensional textured surfaces. Some of the processes usually associated with paper, cardboard, and corrugated board will be discussed below.

# <sup>27.8.1.1</sup> Paper Printing Techniques

Most large runs of cardboard and paper POP displays are printed by a process known as four-color lithography, or offset printing. It is a fast and economical technique to use when a large quantity of the same design is to be reproduced in full color. In color lithography the artwork is reduced to four separate plates, one for each of the four standard colors: yellow, cyan (a blue-green), magenta (a blue-red), and black. Other colors are produced by printing one color over another; for example, to reproduce green, yellow is laid down (printed), and the cyan is printed over it. The usual technique is to start with the lightest color—the yellow—and end up with the black color that tends to define and provide depth of the colors. The color separation, the individual plates for the four colors, and the four separate runs through the press—one for each color—are basically expensive but become extremely practical and economical when the cost is amortized over a large number of units, usually numbered in the thousands.

The offset process is limited in that it can only handle certain substrata—the papers or boards it can print on. The offset process requires plates and a printing "bed," and so the size of the stock to be printed will be determined by that plate and the bed of the printing press. The bed is the surface in which the paper is laid during the printing process. The usual bed size is about 30 by 40 inches, though some special presses may have larger "beds" and thus accommodate larger pieces of stock.

When the printing is on paper, it may sometimes require that the print be applied to a stronger, firmer, or sturdier backup piece, like cardboard or corrugated board. In this case, the printed piece has to be cemented onto the stronger back piece, and this is usually accomplished by the lamination process, which is described later in this section.

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# <sup>27.8.1.2</sup> Silk-Screen Printing, or Screen Printing Process

Another very effective technique for reproducing copy or artwork for displays and displayers is the silk-screening technique that was fully described in <a href="Chapter 22">Chapter 22</a>. The emphasis in that chapter was on short runs and mostly instore use for cards and posters. In those instances, the screens would probably be cut by hand on film positive, which is either amber or ruby-red clear. However, in the POP industry, in which the runs are much larger, the artwork that is reproduced can be more complex, or more sophisticated results are expected, the screens are usually prepared photographically. Some handcutting may be combined with the photographic process especially when there are simple bands or forms of solid color.

What makes the screen printing process so very special in the POP industry is that it is so adaptable and can be used on almost any material available. Whereas the lithograph offset printing techniques and other variations are mainly adapted to paper or very lightweight board, silk screening not only can be done on paper or board of any thickness, but also on hardboard, corrugated board, outdoorboard, foam core, gater board, and parchment; on fabrics, such as silk, satin, nylon, bengaline, felt, and canvas; and on plastic materials, such as Lexan, Plexiglas, styrene, rigid or limp vinyls, acetate, nylon, Mylar, pressure sensitives, and static clings. It is also possible to screen on wood, glass, and metal.

The size of the litho/offset print can only be as large as the printing bed. In the screen printing process it depends on the screen, which can be as large as 8 by 4 feet or even larger if necessary. Screens used to be made of fine silk, but today most commercial printing houses prefer to cover their wood stencil frames with manufactured fabrics. Another plus for this technique is that one can print with a vast variety of paints, inks, and dyes, depending on the materials to be printed upon. If lacquer (nitrocellulose lacquer) is to be used, then the screen will have a waterbased stencil. Water-based paints require a water-resistant, direct emulsion screen—a direct emulsion over the frame. Oil-based paints can be used either with water-based or lacquer stencils. The paints, dyes, or inks can have shiny or matte finishes; produce fairly flat or raised surfaces; be enhanced with glitter or flock; and be opaque or transparent, metallic or Day-Glo. It is possible to print an opaque white over a black base or a real metallic gold or silver over any color. Glossy and flat colors can be combined on the same design, just as transparent dyes and opaque paints can be mixed to create the desired effects.

As previously mentioned, the screen or stencil will be prepared by hand cutting or by photographic means, depending on how involved or complex the artwork is, what the artwork is (a photograph, a painting, a line design, a cartoon sketch, and so on), how fine the finished piece has to be, what the substrate material will be, and the finish required.

Photographic silk screens start with the finished art that is to be reproduced. Just as artwork is separated into four basic colors for lithography or offset printing, so is this artwork first separated into a positive form—right-reading film positives with the emulsion side up. One film is made for each basic color, plus one for black. Unlike the offset process, which works with negatives, the positive film is then attached to the screen by being put into a vacuum blanket. This ensures a bonding without distortion, air bubbles, and so forth. The screen with the film attached is then exposed to a high-density direct light. The light will not pass through the areas where the emulsion now adheres to the screen, and the emulsion hardens and sets, bonding with the fabric of the screen—when hit with the light. After this occurs, the positive film can be removed from the screen, washed down with warm water and some light pressure, and stored away for future reference or for reuse if anything happens to the screen.

Where the light did not penetrate, the emulsion will wash off of the screen. This is the area where the paint will eventually pass through. No paint will pass through where the emulsion has bonded to the fabric of the screen. The same process is repeated for each screen needed for the job. A four-screen job will require that this procedure be done four times—one for each color screen. On each screen the emulsion will be washed away only in those areas where the color will be desired so that the printing media can pass through.

Another very important advantage in the screen printing process is that colors can be changed without making new plates or, in this technique, new stencils. If the manufacturer or vendor has a graphic design that will be used several times but wants to change the color scheme to suit the various seasons of the year, the screens are thoroughly washed after the first use to remove all traces of paint from the screens so as not to clog up the openings. The screens are stored until they are needed for the next season, and new and different colors are run on the same screens. For example, an Easter background may be yellow overprinted with pink and lavender, whereas a Christmas background may be white overprinted with red and metallic gold. The screens remain—the artwork is the same; only the colors change and, of course, the substrate can vary.

The silk-screening, or screen-printing, process is especially effective in printing the pressure sensitive and electrostatic clings and decals that are applied on glass and on complex or convoluted shapes that cannot easily be printed on or hot stamped.

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#### <sup>27.8.1.3</sup> Dimensionalizing Paper and Cardboard Displays

Die cutting is the most often used method for adding a dimensional quality to a display, displayer, card, or poster. Die cutting can create interesting outlines and silhouettes and cut-out openings from paper or board. It can be used to score the board so that it can be bent or folded in a variety of ways. It can create locks and tabs so that pieces can be folded along the score or crease lines and then assembled by locking the die cut tabs through the cut-out slots to make boxes, trays, or easeled stands for cards, posters, or displays. Die cutting adds the third dimension to the unit, which adds interest to the total design. A well-designed cutting die can score and cut a piece of cardboard so that it can be folded or locked into a back panel with a pair of side panels and even a raised platform or tray or brochure holder in the middle—all out of the single piece of cardboard and without gluing. The silhouette of the side wings and the back panel can be decorated with curves or jagged lines or even die cut to look like latticework.

Dies are expensive and should be designed in conjunction with a die maker—a specialist who knows how to get the most out of each blade used in the die. Some dies are basic and can be used over and over again on many different jobs, such as an easel die or a box die, whereas others may serve only for one special display unit. In smaller runs, and when the cuts or silhouettes are not too complicated, the display producer may use a cut awl machine or bandsaw with a template as a guide. It is possible to get a fairly accurate cut, but there will be slight differences from stack to stack because of the human element involved. The cut awl operator can only cut a few boards at a time or a stack of paper about 1-inch thick. The result can be fairly crisp and clean, but when precision matching between slots and tabs is essential, or when intricate interior cuts may be required, this method is decidedly limited in its effectiveness.

#### <sup>27.8.1.3.1</sup> Die Cutting Process

The die cutting process requires a die—a cutting tool designed to suit the material being cut. The technique is similar to cutting out cookies from rolled dough. The shape of the cookie will respond to the contour, or outline, of the cookie cutter. Pressure will need to be exerted to allow the cutting edge of the cookie cutter to go through the layer of dough. The die in the die cutting process is placed on the stationary back plate of the machine. The paper or board to be cut is placed on the movable bed of the press machine and carefully lined up to correspond with the die. The bed is then raised to meet the die on the rear panel. Many tons of pressure are exerted, causing the machine to open and to cut the paper or board.

The die is actually a steel rule set in wood. To make the die, a piece of thick plywood is used for the base and the die designer draws the cutting and scoring lines on the board. Using a jigsaw machine, the lines that have been drawn are cut out of the wood, leaving a groove, or channel into which the steel cutting blades can then be inserted. The curved and arced lines will be made by the steel blade being forced, in the channel, to conform with the desired curves and arcs. There are "bridges" left in the channels during the routing process of making the mold. These bridges are small stops in the channels that prevent the wood block from falling apart. The cutting blades that go over these bridges are called notches. When a score line is desired instead of a cut-through line, the blade that is inserted in the wood base is slightly lower than the cutting blade, and the scoring blade's edge is rounded rather than knife sharp. This blade can then make a "cut score," which actually cuts through part of the board for a sharp right-angle crease or a "crease score," which is softer, and a rounded bend in the board.

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Rubber pads are set around the cutting blades so that the sheet can more readily be ejected after the pressure has been applied. It also makes handling the cutting dies somewhat safer. In the "make ready" die, the blade is dulled, purposefully, in several spots to leave "nicks," usually in the corners. The size of the nick will depend on the thickness of the paper or board being used. Nicks are made where the cutting blade has not penetrated completely. They hold the die cut pieces in place in the full sheet from which they were cut. "Stripping" is the step that follows, in which the die cut pieces are separated from the excess, surrounding stock. If the unit or units

(the die cut pieces) will not be stripped until they arrive at the place where they will be used, such as at the retail setting, the nicks hold the pieces in place during shipping. When the die cut sheets arrive at their destination, the excess paper or board can be removed by pushing or tearing around the notches or perforated outline. A single die cut sheet may hold several dozen individual tags or cards or just one single unit or display.

Figure 27.7 The ultimate in brand promotion! The Coca-Cola shop on Las Vegas Boulevard, in Las Vegas, features myriad Coca-Cola products emblazoned with the company's logo. Shown here is a display of some of those branded products offered for sale as well as an oversized Coca-Cola bottle that anchors the setup and serves to recall the traditional Coke bottle. Hanging from the square column are die-cut cardboard cutouts of the Coke bottle and some of the other bottled drinks prepared by the company. This store is the ultimate vendor's shop and does a terrific job in projecting the brand's image.



Coca-Cola, Las Vegas.

The die cutting machine used for smaller runs is often the platen, or clamshell, press that has been described previously. Basically, it opens and closes like a clamshell. For larger runs and high-speed die cutting, there are more sophisticated presses that require a more complicated "get ready" die. These units work like printing presses, in which one sheet is automatically fed into the press at a time, pressure is applied on the die from above, and the machine then pushes out the die cut sheet of paper or board at the other end. At present, the largest die possible is a 50- by 74-inch finished sheet, as the largest bed on a press can only accommodate a sheet of 52- by 76-inch stock. (See Figure 27.7.)

#### <sup>27.8.1.3.2</sup> Lamination

Lamination is a process whereby two or more materials are joined together into a single piece, using glue or cement. The process refers to the bonding of a printed sheet of paper or a decorative finishing paper onto a sturdy, undesigned cardboard. The supporting board provides weight, strength, substance, and body, whereas the printed—usually lithographed—paper on top contains the graphics or message.

In the process, glue is distributed evenly on the back of the sheet, which is then bonded to the supporting board. Pressure is exerted on the sandwich, as well as some heat, and then the piece is allowed to dry overnight. The moisture evaporates, and the two pieces are now one and inseparable.

Decorative foils are often bonded onto coarse chip boards, and then they may be embossed in another dimensional process. Fine veneers of wood—fractions of an inch thick, almost paper thin—are also laminated onto heavy, serviceable, and nonglamorous plywood backing.

#### <sup>27.8.1.4</sup> Other Dimensional Effects

## <sup>27.8.1.4.1</sup> Appliqué

A flat POP display can be given greater depth and interest with the addition of some three-dimensional appliqué or attachment. Some examples of appliqué include paper lace glued on the edge of a fan, a paper flower placed behind the ear of a photographed Polynesian beauty, or a piece of fabric tucked into the pocket of a silk screened pinstripe jacket. Because this is usually a manual process, it can add quite a bit to the cost of manufacturing the unit, but because it is so effective, it can be worth the added cost.

The appliqué serves to break up a flat design, making it more of a dimensional display and less of a poster. Sometimes, these softening elements are sent along with the unit, and the retailer is requested to add a boutonniere or to pin on a piece of bridal net. In this case, the producer does not need to handle each unit separately. The packing is simplified and the appliqué looks fresher for the viewer. The retailer, however, must be agreeable to adding these final touches.

## <sup>27.8.1.4.2</sup> Layering

Dimension also can be achieved by superimposing different shapes, one on top of the other, to add a sense of depth to the POP display. These layers can be set one directly on another, or they may be separated from each other by blocks and tabs. Using a tab or a fold-back flap to attach a layer will give the effect of greater depth, but the POP unit will still pack fairly flat.

### <sup>27.8.1.4.3</sup> Embossing

A raised, embossed, or relief impression can be made on a piece of artwork when, during the printing process, specific lines are etched into a die, so as to appear on the printed surface. Or, sometimes, a die is placed underneath a piece of artwork, and pressure is applied from below, creating a raised pattern on the surface of the artwork. The embossing, in either case, creates a raised, textured surface.

#### <sup>27.8.1.4.4</sup> Blind Embossing

A method of adding dimension to a surface and creating a raised design without the use of inks or paints.

## <sup>27.8.1.4.5</sup> Paper Sculpture

A technique for creating full-round, or bas-relief, decorative designs and objects by means of scoring, folding, cutting, curling, and applying papers of assorted colors, textures, and weights, for example, the Japanese art form of origami.

#### <sup>27.8.1.4.6</sup> Papier-Mâché

A technique for producing three-dimensional objects, such as mannequins, by means of molding pulped paper. The pulped paper is mixed with glue and, sometimes, with a whitening substance. This "mushy" material can then be shaped, filled into molds, or formed around shapes or forms. As the mâché dries, it becomes harder, stronger, and more durable. Strips of paper can also be moistened with paste and layered over and over in a mold or around a form to make a papier-mâché reproduction of the unit. There is some shrinkage as the unit dries. It is also called paper stucco when used to create architectural details such as moldings or frames. This is a hand process and is not recommended when there are long runs or many products to be reproduced.

#### <sup>27.8.1.4.7</sup> Rubber Mâché

A rubber, latexlike compound is poured into a specially made hollow mold and allowed to dry or set or is force dried by being heated in an oven. The excess material that did not set or harden is poured off, and the "rubber" unit is allowed to cure and become fully rigid. It usually requires a minimum of smoothing, rasping, or sanding to finish the surface that was formed by the inner surface of the mold. When finished, the piece should be fairly firm and resistant to breakage. The piece can then be painted, gilded, textured, and made to resemble natural materials, such as wood or stone. This, too, is basically a hand operation that is not suited to big, commercial runs.

# <sup>27.8.2</sup> PLASTICS

Plastics are very important in the manufacturing processes used in making POP displays, displayers, fixtures, and signage. They afford a great variety of materials used in POP production, from sheets that can be cut out and used to construct complete units; to shelves on wire or wooden units; to backgrounds for displays; to platforms or risers; to materials that can be bent, formed, and shaped; to materials that can be molded or extruded from molds or dies. Some plastics are available in sheets of different thicknesses and colors. They have certain unique properties, such as being resistant to water, breakage, or shattering; strong to support great weights; or soft and pliable. Some plastics are available in granule or powder form and need chemical catalysts or heat to expand and fill in hollow mold cavities. Some plastics respond to heat; others resist it.

There are two very important categories of plastics: thermoplastics and thermosetting plastics.

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## <sup>27.8.2.1</sup> Thermoplastics

Thermoplastics are resins or plastics that can be repeatedly softened by the increase of temperature, that is, the application of heat. When the thermoplastic material is in a gellike, or softened, state it can be formed, shaped, or even reshaped. To harden or set the material in its new form/shape, the material has to be cooled. When cooled and "cured," the thermoplastic retains the shape until it is once again subjected to great heat. This material is very important in the vacuum forming processes. Some thermoplastics are polythylene, polypropylene, PVC, polystyrene, acrylic, and ABS.

## <sup>27.8.2.2</sup> Thermosetting Plastics

In contrast, thermosetting plastics, when cured and set, become infusible and insoluble. In some stages of the production, the thermosetting material may be liquid in form. The curing process—whereby the softened material hardens in the desired shape or form—can be accomplished by the application of heat or the addition of chemicals. After that shape is assumed, the material cannot be reshaped or reformed, like thermoplastics. Some thermosetting plastics by being cross-linked with other plastics or chemical additives. Some thermosets are polyesters, alckyds, melamines, epoxies, and phenol formaldehyde.

In selecting a plastic material for POP production, the designer must know what the desired end product will be. What is it expected to do, and for how long it is expected to be in use? Cost is also a major factor to be considered. Plastics are usually more expensive than paper products, but they can do things that paper cannot—and they can last longer. Plastics are used for: outdoor signs, indoor signage of a semipermanent nature, fixtures with bases, and shelves that will be exposed to wear and tear on the selling floor. Fixtures that need to be theft proof, with a look-but-don't-touch-or-take attitude, may require plastic envelopes or enclosures.

#### <sup>27.8.2.3</sup> Processes for Producing Plastic POP Units

Semidimensional units can be vacuum formed or made by an injection molding technique, sonic seal, or hot stamping.

## <sup>27.8.2.3.1</sup> Vacuum Forming Process

Vacuum forming is an "extreme" form of embossing. In this technique a lightweight, thermoplastic material is used. The plastic sheet is capable of being shaped and formed when heated and when cooled will retain the new shape or form. The plastic sheet is heated and softened and then forced over a mold or die usually placed beneath it. Pressure is exerted from above that causes the now pliable plastic to take on the contour and shape of the mold below. Suction, also applied from below, ensures the skin-like fit of the plastic to the mold; it also helps to cool off the plastic so that it will keep the new shape. When the plastic is "set"—returned to room temperature—it maintains the shape of the mold. The process is then repeated with another sheet of plastic.

There are four types of plastics used in the vacuum forming process, and they are all thermoformable materials; that is, when heated, they leave the solid state and become malleable, pliable, or formable. Most popular and most inexpensive are the styrenes and polystyrenes. The sheets are available in a variety of thicknesses and in many colors, both shiny and matte. The main problem with this group of plastics is that they can shatter, and the clear sheet is not truly clear. The other classifications used in this process are the acetates, the vinyls, and the polychlorides, which are really clear and available in a range of colors and thicknesses. They are basically stronger and more durable than the styrenes. Where the vacuum formed unit is required to support weight, such as a cantilevered shelf or the base of a fixture, the latter three materials are probably better to use in the vacuum forming process.

The all-important element in the vacuum forming process is the mold. The mold can be constructed originally of wood, putty, clay, or any combination of materials and then hardened. Because the pressure exerted by the vacuum forming press is anywhere from 6 to 8 tons of pressure, the original mold or construction can only be used to make several sample units. One of them will be turned into a production mold by being reinforced with a wood frame and filled with cement or epoxy.

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In preparing the production mold, the plastic shape—one of the sample pieces—is placed in a box lined with plaster of paris. The epoxy (or cement) is then poured into the hollow shell or form. Pins are inserted into the epoxy-filled mold to create the airholes that are necessary for the vacuum and suction to work during the shaping process. The new epoxy mold is then sanded, smoothed, and polished and made ready for use in production.

Each time a sheet of plastic is brought down under heat and pressure to conform with the mold it is called a shot. Depending on the number of shots or pieces required to be made from the mold, the mold has to be corrected. For shorter runs—a few thousand—the epoxy mold is effective, efficient, and relatively inexpensive to make. For more shots, poured or liquid, aluminum molds may be preferable, but they are more expensive to generate. The most durable mold is one made of cast aluminum. It is also very important in designing a mold that there be no undercuts or indentations that will hinder or even make it impossible to lift the molded piece of plastic off of the mold.

After the sheet has taken on the form of the mold, it must be trimmed and the excess material removed. This is often done with a die (see "Die Cutting Process," earlier in this chapter). The die may be placed in with the mold so that the pressure exerted from above to soften and shape the plastic will also cut off the excess material of the sheet. If there are any internal cuts or openings needed in the mold such as a slot or a shape, another die may be used to effect those cuts.

Usually, the molded piece is half or partially rounded. It may be anything from a low relief to a half ball. When a full-round or totally three-dimensional piece is required, two halves or two separate molded pieces that will then be glued or notched or stapled together are used. For example, if a giant Christmas ornament is desired, then two half rounds would be formed and then joined together. This is a separate process. The die that is designed to trim off the excess material may be made with a lip or extension that can be used in the joining process.

#### <sup>27.8.2.3.2</sup> Injection Molding Techniques

All the processes used in the injection molding and vacuum forming of three-dimensional pieces for POP require heat plus pressure. The amount of heat and pressure will vary with the specific technique or machinery used. In most instances, the plastic material is heated in a barrel or chamber in the machine, and then it is pushed through, in measured quantities, to fill in the hollow cavity of the mold. Heat may be applied when the molds containing the material are inserted into the hopper—the opening that feeds the machine. For the plastic piece to be formed, the mold has to be cooler than the material injected into it.

Pressure may be exerted by pushing or ramming the heated or softened material into the mold, or while the plastic material is in the mold, to guarantee that the plastic material fills in all parts of the cavity of the mold. Some pressure may be exerted in the removal of the finished molded piece from the mold.

## <sup>27.8.2.3.3</sup> Injection Molding Tool

The usual injection molding tool is made of aluminum because it is easier to tool, costs less, and takes less time to make. However, when very large runs are anticipated, the tool can be made of steel. The typical mold is made in two parts: the cavity side, which is the face of the desired product, and the ejector side, which is the back. The

shot of melted plastic passes through a nozzle in the injection molding machine into the sprue, or opening, in the cavity part of the mold. The "gates" control how much material goes through the "runners." Pressure is maintained on the mold till the gates "freeze." The plastic material is, therefore, trapped in the hollow space between the cavity half and the ejector half of the mold, and it takes on the shape of that hollow form. The material is cooled in the mold, and when it has set sufficiently to hold the desired shape or form, the ejector pins in the ejector part of the mold push the finished piece out.

#### <sup>27.8.2.3.4</sup> Sonic Seal

Very often a product that is made by injection molding will require two or more separate molds to make up the finished piece, for example, a shaped box with removable top. The box, the cover, and the bottom of the box are each molded separately and then hand assembled. The cover will be set on top of the box, but the base may have to be welded on. Instead of cement or chemical bonding agents, this process is accomplished with a sonic sealer. This machine electronically fuses and melds the pieces together so that they are not only secure but, if necessary, waterproof as well.

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## <sup>27.8.2.3.5</sup> Hot Stamping

A process for applying the product's name or logo, decorative designs, or copy onto dimensional plastic pieces, such as shelves, platforms, or back panels, is called hot stamping. This is accomplished by placing the plastic surface to be decorated underneath a sheet of colored plastic film of the desired color. The artwork is raised on a rubber plate that is set in the heat-and-pressure machine above the coloring film. When pressure and heat are combined, the rubber plate is pressed down on the color film, which in turn leaves the desired colored imprint on the plastic piece that is held in place below. It is not unlike a rubber stamp leaving its imprint on paper, but instead of ink, colored film is the medium.

Sometimes, the logo or design is raised and is part of the molded plastic piece. In that case, the rubber plate is flat and has no design. The heat and pressure force the colored film to yield the color to the raised design on the piece of plastic and, at the same time, bond the color.

When two or more colors are used, the process is repeated with another rubber plate and the other desired colors of film.

# <sup>27.8.3</sup> WOOD AND METAL

Along with some plastics, metal and wood are used for more permanent POP displayers and fixtures. They are stronger and more durable than paper and cardboard or extruded plastic shapes. However, they are more expensive to use.

Wood has a natural look and provides a sense of warmth to the product as well as a residential quality to the design of the fixture. Shoppers associate it with furniture and with the shop furnishings or fixturing of better shops and boutiques. Home fashions and home products look more intimate on wooden fixtures. Very often, wood or a wood-finished piece (covered with a wood veneer or laminate) is used in vendor shops—especially when the manufacturer wants to achieve an upscale look or wants to appeal to the rugged, masculine lifestyle. Because wood suggests a better or finer product, watches, pens and pencils, jewelry, and other expensive items may be housed in wood on the floor or on the counter. Outdoor products are given a more rustic look from a wood-finished displayer.

However, because some solid woods are too expensive to use in mass-merchandised POP items, it is likely that the fixtures and displayers will be made of some of the wood look-alike materials and possibly finished with a veneer or very fine sheet of fine wood. The inexpensive solid woods, such as pine, may be weakened by the knots, or the

finished pieces may end up looking too provincial, or country-style. Also, soft woods will scratch or dent when kicked or mistreated by the shoppers. In working with wood, the designer also has to consider the back of the unit: Will it be visible? Does it have to be finished? Sometimes, the back of a single-faced piece can be finished with a lesser wood or a more utilitarian substitute rather than the same wood used on the face of the unit. Not only is this economical, it may also strengthen the finished piece.

It is not unusual to see wood combined with metal in permanent fixtures and displays. Welded metal pieces may be used for the framework and then combined with wood shelves or panels or signs. A wood fixture may be equipped with metal grills, grids, or expanded metal shelves that look lighter and are lighter than wood. Also, grids or grills will permit the ambient or targeted light to pass through the floor fixture or wall unit so that the products on the lower shelves are illuminated.

Wood dowels or metal rods can be used to carry or support vacuum-formed or injection-molded shelves, bins, or trays, thus making the units more permanent on the selling floor.

## <sup>27.9</sup> POP Design Checklist

The designer has now accumulated the necessary data and is ready to proceed. It is advisable to consider every POP unit as part of an overall promotion and as the ultimate message of the advertisement. The POP unit can support a shrinking sales force by answering customers' questions, supplying the necessary information, giving prices and construction details, and showing the available selection and range. It can offer a sample, supply a taste, or be tested. It can be, if well designed, an asset to the merchandise retailer with limited sales help or fixtures. The customer is where the sale is made!

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When designing, the following checklist may be helpful because it asks all the questions that the unit will be expected to answer.

- 1. When is the unit to appear? What is the timing?
- 2. Toward whom is the product or service directed? What is the target market?
- **3.** What is the purpose of this unit? Is it to introduce a new product? an improvement? a new style?
- **4.** Is there an ad or TV campaign planned in conjunction with this unit? Will the POP design carry the same ad message?
- 5. Does the unit have anything to do but carry the message? Is it a sampler? a tester? a stocking or restockable unit?
- **6.** What POP units have been done in the past for this product or manufacturer?
- 7. What are the competitors doing with their POP programs?
- **8.** In what types of retail operations will these units be used? Where will they be located in these stores? Will other POP units be used in conjunction with this piece?
- **9.** What quantities will be required?
- **10.** What is the budget?
- 11. How long will this unit be used? Is it to be reusable?
- **12.** Will the finished unit be bulk shipped or individually packed and shipped? Will it be sent by public conveyance or personally delivered by a company representative?

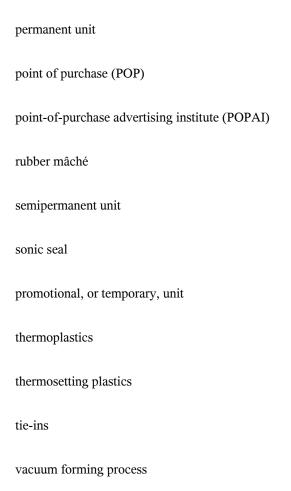
- 13. Should the unit include samples? dummy boxes or bottles?
- 14. If the unit is to be stocked and prepacked, how many items should the POP piece carry?
- **15.** Would the client like light or motion? Is there room in the budget for special effects: appliqué, vacuum forming, embossing, complicated die cutting, and so on?
- 16. What materials and techniques would the client prefer?
- 17. Who installs the unit—the customer? a sales representative?
- **18.** Would the client like to see rough sketches? a comprehensive ("comp")? a model?
- 19. How is the client to be charged for the designs or comps?
- **20.** Would the client like to see some auxiliary design concepts that would reinforce the message being presented in the POP unit; for example, table tents, shelf readers, overhead banners or streamers, decals, buttons, T-shirts, and so on?

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# <sup>2...</sup> Point-of-Purchase Display: Trade Talk

appliqué
blind embossing
die cutting process
embossing
hot stamping
injection molding techniques
injection molding tool
lamination
layering
papier-mâché
paper sculpture



## <sup>2...</sup> Point-of-Purchase Display: A Recap

- ♦ Point of purchase (POP) is the total image fabrication of a product.
- ♦ POP units can be displays, displayers, fixtures, or auxiliary items provided by vendors or manufacturers to retailers.
- ♦ Some reasons for using the POP display are as follows: It encourages the consumer to make an on-the-spot decision to purchase; it gains attention and brings the consumer to the product; it explains the product and informs the shopper; it can coordinate with other promotions and induce sales of related products; and it can reinforce a price message.
- Product categories utilizing POP include food and paper goods, personal products, beverages, health and beauty
  aids, hardware and building materials, fast-food operation, lotteries, hotels, and vending machines, household
  goods, tobacco.
- ◆ POP units can be permanent or semipermanent, temporary or promotional.
- ♦ When designing a POP unit, the display person must consider the type of product; the target audience; where the unit will be used; whether the unit will be permanent or expendable; the life expectancy of the unit; promotional

tie-ins; the type of store in which the unit will appear; the number of units to be produced; the method of shipment; whether light, motion, or computer chips will be involved; and how much the unit will cost to produce.

♦ The POP unit can be made of a wide variety of materials: paper, cardboard, foam core, various thicknesses of wood, pressed board, plastic, or metal.

#### <sup>2...</sup> Questions for Review and Discussion

- 1. What is the function of POP display in retailing today?
- 2. List five items that could be considered POP units.
- 3. Why has POP become such a growing and important business in the past decade?
- **4.** What can POP do that "regular" display cannot?
- 5. What industries are heavy users of POP? In what types of retail outlets do POP units commonly appear?
- **6.** Explain the three categories of life expectancy for POP units.
- 7. In designing a POP unit, what factors are taken into consideration?
- **8.** What is a POP specialist?