# Color in the Home

MICHIGAN STATE COLLEGE COOPERATIVE EXTENSION SERVICE

EAST LANSING

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## Color in the Home

### CHARLOTTE BRENAN ROBINSON

THERE'S magic in color! It lifts the spirit, brings light into a dark room, changes drabness to beauty, gloom to cheerfulness. Your home may glow with color without costing any more than if you use drab or uninteresting colors in paint, wallpaper, and fabrics.

Any homemaker can plan a color scheme for her house if she knows a few simple principles of color harmony and color mixing. But she must

take a little time to plan first before she acts.

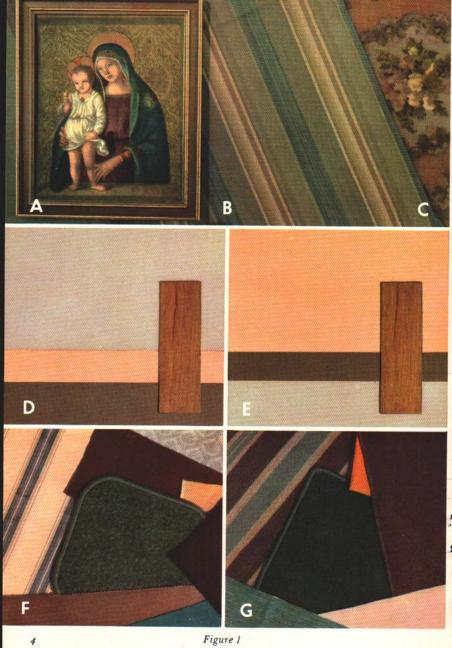
You will find some basic guides to color planning in this bulletin. Even if you have never worked with color before, you can train your eye to see color differences. You can use the ideas presented here to plan your own color schemes, mix paints, and use color with enjoyment and satisfaction. Later, you may wish to go on to the advanced study of color beyond the scope of this bulletin.

### USE OF COLOR

Color is one of the best and least expensive means of making the inside of a house pleasant and attractive. Select colors for the living room that make it cheerful and inviting. Choose colors for the bedrooms that are restful, those in the kitchen to make you whistle while you work. If your colors are to be satisfying to the family, you need to know, when you select new furniture, draperies, rugs, pictures, and wallpaper, how to choose those that look well together. You need to learn how much, that is, what proportions of each color to use, and how to place these colors around the room.

### COLOR SCHEMES

Colors have to be arranged in planned schemes before they are effective. Therefore, the first step is to plan your color scheme. Yellows, reds, and blues are used together in all good schemes, but may not appear as such in your finished plan. For example, they may be mixtures, such as lemonyellows, yellow-greens, blue-reds, green, oranges, violets, red-grays, yellow-browns, and the like. Each color in your scheme may range from dark tones to lighter ones, or from bright to duller ones, or to grays. A good color plan shows restraint in the number of colors used, yet with enough different ones to give interest and variety.



Sources of color schemes

Artists and designers are experienced in the use of colors. Why not make use of color plans they have made? That means selecting your color scheme from a furnishing already in use or one to be purchased, a furnishing that you expect to use for a long time. Whatever you choose, let it be something that has a number of colors in it from which you may select a few that fit into your room scheme. It might be a figured drapery, slip cover, or upholstery material; a figured rug, wallpaper, or a picture. The following illustrations are examples of color schemes, each based on a colorful furnishing.

Figure 1, A. Four colors in the picture were chosen to make a deep-colored, rich scheme. "Richness" is obtained by using many dark colors, with just a few light ones. Red, blue, green, and yellow are used, with red the main color. The gown is of a dark blue-red, the background a light, soft grayed red, and the small halo contains touches of bright red. Two other important colors, the deep blue of the cloak, and the soft, grayed blue-green of the lining are repeated in the wall-design. The yellow of the halos and of the skin gives the fourth color.

Figure 1, B. The soft, dull colors of the striped material for draperies or slip covers are of medium tone or value. These form the basis for the tone of the scheme. The main color, blue-green, is found in the stripes; it varies from a dull or grayed blue-green to a brighter blue-green. This gives accent. Another stripe is made up of smaller stripes of brownish red, soft green-yellow, and warm or slightly reddish gray. This gives variety, but not so much as to overcome the common tone that forms the basis of the scheme.

Figure 1, C. The chief color, or hue, is rose, which ranges from the light rose in the background to the deep blue-reds, or violet, of the flowers; the soft yellow-grays vary until they reach cream whites. The third color is found in the various shades of blue-green of the leaves. The color plan is mainly light, with variety in the number of light colors.

Amounts of color to use

Sometimes several colors have been put together, yet the result seems monotonous and uninteresting. The reason may be that the same amount of each color has been used. It is better to have the amounts vary.

Your color scheme will look best when you use large amounts of the most important color, a smaller amount of the second color, and still less of the other colors. For example, in a one-color scheme, the lightest tone of that color is used in large areas, and brighter shades and darker tones of it in smaller areas. For a two-color scheme, decide which color is to be the important one and use several tones or values of it. Small amounts of the second color add interest and variety. Good proportion in a two-color scheme is 60 per cent of the main color, and 40 per cent of the second color, including variations of dark, light, dull, and bright.

For a three-color scheme, use large areas of the main color in many places around the room, a smaller amount of the second, and little of the third,

which may be bright. For example, try using 50 per cent of the chief color and its variations, 35 per cent of the second one including its variations,

and only 15 per cent of the third.

Figure 1, D and E. The same color scheme is here made to look different by changing the amount or area of each color. Note how using the same combination of warm gray, peach, and light brown in different proportions, in illustrations D and E, produces a different effect. In D the large area is the light, warm gray, in E, it is peach. Large background areas can be colored in this way to vary the same color scheme in different rooms.

### Colors that look well together

You can combine different colors harmoniously by using those in which one color is present in all. Yellow is the common color in hues such as green-yellows, yellow-greens, yellow-oranges, yellow-browns, yellow-grays. Therefore, a selection of some of these colors to use together tends to be harmonious. Red is the common hue in yellow-reds, rust, purples, red-browns, red-grays, and the like. Blue is the common color in blue-greens, green-blues, violets, blue-browns, blue-grays, and many other hues (figure 1, F and G, figure 8, G and H). In each of these sets, the colors may be successfully combined because each set has a common hue.

Another way to combine colors so that they go well together is to avoid strong contrasts. For example, it is well not to use pale colors with dark ones, or clear, bright colors with grayed, dull ones. You'll find it better to use various tones of bright colors together; various shades of dark colors together; or all pale colors together, or all grayed ones together. Mediumbright colors look well with black and dark shades, while clear, bright, and light hues go best with white.

### Ways to create color schemes

One way to create your color scheme is to decide which color is to be the most important one in the room. Then select a figured material having a scheme that includes this main color, and choose from it other colors that are suitable for the room where they will be used.

A second way to create a color scheme is to begin with a favorite color for the main one. Then select other colors that are tinted a little with this favorite color, as suggested under "Colors that look well together".

For example, if you choose red, and if it is tinted with blue so that it is blue-red, then the colors that go with it should also have a red or blue tint, such as red-browns, red-oranges, red-grays, blue-reds, blue-greens, bluishor green-yellows (figure 1, G).

If on the other hand the red has a yellowish tint, which makes it a yellowred, such as rust, then the colors that go with it should have a yellow or red tint. Some of these colors are yellow-oranges, yellow-grays, yellow-browns, yellow-greens, green-blues, and reddish yellows (figure 1, F).

A third way to make a pleasing color scheme is to use together dull, soft

shades of yellows, blues, and reds; or oranges, greens and violets. Because these colors are grayed or dulled they harmonize with each other better than when they are harsh or bright.

A fourth way is to use together grayed shades of contrasting hues, such as red and green, blue and orange, or violet and yellow. Decide upon one or the other in each combination as the main color, choosing the one most suitable for the room.

### HOW TO USE COLOR SCHEMES

After selecting your colors the next problem is how to use them. The way this is done determines the final effect. How much of each color shall you use? How shall you combine one with others? Most important, where shall you place each color with reference to light and shadow? These are some of the next decisions you will make in developing your general color plan.

The largest areas, such as walls, are most pleasing in the softer, grayed colors, whether they are light or dark; the furniture may be in light colors or dark rich ones; the small areas and small objects, such as cushions, vases, flowers, and the like, can be brighter.

If the main color in your scheme is clear, bright, and gay, as is often seen in the kitchen, then choose for the other colors those that tend toward clear, bright hues. If the most important color is a dull or grayed one, then use with it those that tend to be less bright.

First, plan the colors for the walls, floor, and ceiling, because they are the largest areas in a room. They are the background for all the colors used in front of them. Avoid too great contrasts between the colors in these areas, because strong contrasts make them separate and so break up the unity of the background part of the room.

One good plan is to have the ceiling of the lightest color, the walls a little darker, and the floor darker than the walls. Then use medium to bright colors in upholstery, slip-cover materials, small accessories, and sometimes in draperies, and use dark-toned furniture woods. Another good plan is to have the walls medium or dark, the ceiling lighter, and the floor still lighter. The furnishings against the medium or dark walls can then be of the light-toned woods, light-colored fabrics, and light, bright colors in the small accessories such as vases, lamps, and flowers.

You may want your walls, draperies, and rug all without pattern. But if you prefer pattern, then use either of the following plans: have one plain,—plain walls, plain draperies, or a plain rug, and have the other two patterned (figure 2, E); or have two of them plain, and one patterned (figure 2, A and B). This prevents confusion and restlessness. The eye must find enough plain space for rest and enough pattern for interest.

A room looks best when the colors of walls and draperies are not too different in tone. If either one attracts too much attention then the balance in the room is upset and the color scheme is spoiled. For example, walls that

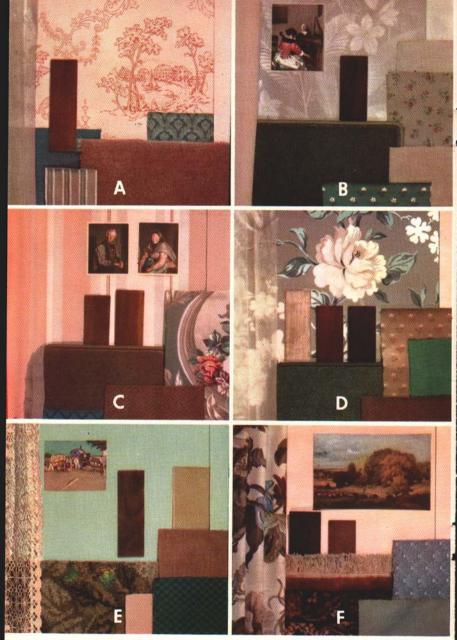


Figure 2

have figured paper need plain-color draperies to make an interesting contrast (figure 2, A, B, C and D). When walls are plain, draperies of the same color or a little lighter or darker than the walls are restful (figure 2, F). Another plan is to have them of a different color but of about the same tone as the walls. A third plan is to choose figured draperies with a background color like that of the walls (figure 2, E), or with the most important color in the pattern the same as the plain wall color.

Illustrated color schemes

Figure 2, A. This scheme is dainty yet colorful. The plan was built around the blue-reds, purplish-blue, and warm cream in the wallpaper. The reds are used in largest amount; cream, second; and blue, the least. The curtain and rug are plain-colored to emphasize the delicate tracery of the wallpaper pattern. The curtain repeats the color of the background of the wallpaper in a little darker tone or value. The woodwork shown at the right matches the background color. The rug and the furniture repeat the red, and the upholstery materials repeat the blue in the pattern of the wallpaper.

Figure 2, B. This color plan is subdued and delicate, with a sparkle of colors here and there for accent. The picture, the basis of the scheme, which includes rich grays, soft reds, and yellows, brings color up on the wall. The gray, used in largest amount, repeats the gray of the wall in the picture. The plain yellow drapery, plain rug in a deep tone of gray, and the plain gray upholstery materials do not detract from the wallpaper pattern with its graceful leaves and flowers. Yellow, the second color in importance, is seen in the skirt worn by the woman in the picture. In the room it is repeated in the plain yellow drapery and in the flowers of the wallpaper. A small amount of the red seen in the jacket and furniture of the picture is repeated in the room in the little flowers of the gray upholstery material. The blue-green cover with its small, pale yellow, and deep red flowers repeats the bright colors of the upholstery material. Because the green has yellow in it, this material ties in well with the whole scheme. The gray-brown walnut furniture-wood harmonizes with the other colors.

Figure 2, G. This color arrangement is bright and gay. The reds, blues, and yellows are taken from the pattern of the flowered cretonne slip-cover material. The wallpaper repeats the colors, and its broad, soft-colored stripes are more restful on the wall than bright-colored, contrasting ones would be. The plain rose curtain, the gray-rose rug, and the cherry wood of the furniture emphasize the rose color as the most important hue. The plain upholstery materials repeat the colors and keep a good balance between plain and figured. The two pictures have the same simplicity as the wallpaper and bring a different interest up on the walls. They repeat all the colors in the scheme and so help to tie the colors together into a unit.

Figure 2, D. From this lively, colorful wallpaper, green has been taken as the main color in the scheme. The plain green rug and the green chair cover further accent this color. Then, for variety, the gay yellows in the

wallpaper are repeated in the yellow upholstery material. The pink flowers in this material are much smaller in size than those in the wallpaper, therefore, both patterns may be used in the same room. The blue-reds in the flowers on the wall are carried out in the upholstery of a third chair. Because the wallpaper pattern contains much white, white is used for curtains. The woodwork also is white, slightly tinted with grayed-green to harmonize more closely with the wall color. Mahogany, cherry, or bleached woods can be used with this scheme.

Figure 2, E. This gay color scheme is made up of warm grays, light and dark browns, soft reds, greens, and yellows from the rug pattern. The lace curtain and the rug in themselves do not have much color, but when the colors in them are emphasized in plain wallpaper and upholstery materials, immediately the room becomes colorful. The plain, light green wall emphasizes the green in the rug, and displays well the pattern of the light ecru lace curtain. The brown of the walnut furniture-wood emphasizes the browns in the rug and adds a dark note of balance. The picture repeats the scheme up on the wall and helps to hold all the colors together.

Figure 2, F. The rich scheme for this room was planned from the colors in the drapery, red-blues, blue-reds and pinks, soft grayed greens, yellows, and creams. The colors in the figured rug repeat those in the drapery. The patterns of the rug and draperies go well together because of their contrast in size and character; that of the drapery has large flowers informally placed, the figures of the rug are small and formal. The rich cream wall-paper is the one plain surface of the three background areas, and by repeating the cream in the other two, all three are drawn together. The cream background of the drapery harmonizes well with the wall color. The plain upholstery materials repeat single colors from the rug. They show against its pattern, look colorful against the plain walls, and do not add the confusion of more pattern to the room. The picture helps to bring color up from the floor to the walls. Red mahogany, deep red cherry, or walnut furniture-woods add their richness to this scheme.

### HOW TO DISTRIBUTE COLOR SCHEMES

Colors look best and the room becomes a unit when the scheme is repeated in all parts of it, that is, across the floor, up on all the walls, and out into the room on the furniture and accessories.

Plan one color scheme for the whole house

You may want to carry the same color scheme throughout your house. With a little care this can be very successful and a most interesting color plan. For example, if you plan a warm gray, peach, and yellow scheme, then you might use gray as the main color, and some peach with touches of yellow, in the living room. In the dining room, you could let the peach be most important, with less of yellow and gray. In the hall, gray and touches of peach and yellow would be successful. Gay yellow with some

peach and gray would be suitable in the kitchen. You might use light gray with accents of yellow in one bedroom and light gray with accents of peach in the other. Small amounts of other colors may appear in each room to add interest and variety.

How to arrange colors around one room

One way to distribute colors in a single room, if you are starting with new furnishings, is this: Begin by planning your scheme. Use the colors from it singly on some areas, such as on the walls and on a few upholstered chairs; then use two of the colors together in a striped or floral-patterned material for draperies or chairs; and in other places use a figured material that has three of the colors in it, as in a slip-cover for a davenport or on pillows. Then in a few places use the whole color scheme, as in the patterned rug or in pictures. This plan gives variety in both pattern and color.

If the room is already furnished but is to be brightened and freshened, follow the same plan. From the furnishings on hand create a color scheme. Then emphasize these colors wherever possible by adding plain-colored surfaces or patterned ones in two or three colors, and include a few objects

that have all the colors of the scheme.

Figure 3, A. Here are simple, bright colors for a room. The basic scheme of greens, yellows, reds, and browns, were chosen from the picture over the fireplace. Because no patterned materials are in the room, the plain ones seem more colorful. Green, the main color, is used as a light tone on the walls and a little darker tone is seen in the rug. Yellows and reds are repeated singly on the upholstered seats and in the maple furniture. The light pinkish-yellow draperies are of about the same tone or value as the light green walls and together form a two-color pattern there. The yellow chrysanthemums on the walnut table and the red davenport create a three-color pattern in that part of the room. The picture ties all the colors together on one side of the room. The books, ash trays, lamps, and plants place the colors around the room making patterns against the plain areas.

Figure 3, B. The basic color scheme here is rose, green, and cream. The main color is rose, which varies from dark mahogany to a light-grayed shade of rose. This color is distributed around the room; it appears on the davenport and is repeated in a deeper tone on the small chair and mahogany furniture. It is also seen in the bright shades of the book and tray on the low table, and in the flowers. To bring this color up on the walls it appears in the bookshelves and in the light tone of the draperies. The blue-green of the rug is the second important color. To bring this color up in the room, it is repeated in the flower vase, the picture over the fireplace, the ash tray, and in a few ornaments on the shelves. The cream of the walls is the third color. To help tie all these colors together, they are used in twos and threes in such things as the cream and rose cushion, in some of the ornaments on the bookshelves, and in the flowers. Then the whole color scheme is re-





Figure 3





Figure 4

peated in the slipcovered chair and in the picture. The red-blues in the cushion on the davenport, in the picture above it, and in the upholstery on the chair at the right add variety to the main color scheme, and tie in well because they repeat the blue in the blue-green rug and in the mahogany furniture, and the rose in the upholstery.

How to arrange colors around adjoining rooms

An abrupt change in color, or shade between rooms, or between the hall and adjoining rooms, destroys unity because it breaks off the color from one room to the other. A few ways to prevent this break are:

(1) If you put bright color on the walls in one room, then use bright, not dulled or graved color in the adjoining room;

(2) use the same color on the walls in both rooms, selecting one from the scheme:

(3) have the wall-color in each room different, but have both of the same value, that is, both of a light tone or both of a medium tone;

(4) use wallpaper of the same color but of a different pattern for each room;

(5) use the same color scheme in both rooms, but in one room, choose a color of the scheme to be most important, and in the second, emphasize a second color.

When the walls in adjoining rooms have figured wallpaper, it is best to have plain-colored draperies in both rooms. When the walls in adjoining rooms are plain-colored, the same draperies may be used in both rooms. These may be plain and like the walls in color, or of a different color. Or you may use figured draperies of the same pattern in both rooms, or plain-colored draperies in one room and in the other figured ones. One important color in the figured draperies should be that of the plain ones.

Usually it is best to have the rugs alike in both rooms whether they are plain or figured. When the rugs have different patterns, unity can be obtained by having the main color or the background the same in both rugs. This also applies when one rug is figured and the other rug is of a plain or solid color. When both are plain but in different colors, they will be more harmonious if of the same tone.

Figure 4, A. Here are two adjoining rooms in which the same basic color scheme is used, peach, blue, and a creamy-gray. The main color is peach, painted in a light tone on all of the walls and woodwork. The red mahogany furniture adds a deep note of reddish color. The second color, blue, is seen on the blue upholstered chair in one room and on the davenport in the second. The two colors are used together in the blue-and-peach striped draperies hung at the windows of both rooms. These bring color and pattern up on the plain walls. In the framed picture all the colors come together and make a pattern on the walls. The gray frame repeats the rug color. The upholstered chair, covered in rose and blue stripes, makes a

pattern against the plain cream-gray rug. The lamps add interest, a peach shade being used in one room and a blue one in the other. Using the colors separately and then combining them holds the scheme together and makes

an interesting and subtle use of the colors.

Figure 4, B. This living room and adjoining dining room have the same basic color scheme, green, rusty-red, and cream, but in one room the rusty-red is emphasized and in the other the green. Different colors of about the same tone or value are on the walls. The green in the living room rug is repeated in a lighter value on the dining room walls. The light rust of the dining room rug is used as a light tint in the cream on the living room walls. In the dining room the colors come together in the draperies where the rust and green pattern appears on a creamy-gray ground. The patterned draperies also add an interesting contrast to the plain green walls. The picture and its gray frame carry some of this color above the sideboard. In the living room the picture over the fireplace repeats the greens and warm grays up on the wall. The rusty-red in the upholstery material on the footstool and that in the pattern on the chair add interest and variety to the plain green rug.

This weaving of colors back and forth between the rooms helps to hold them together as a unit. The different emphasis on each color keeps the scheme from becoming monotonous. The reddish tone of the maple furniture in both rooms also helps to tie the two rooms together and makes

them colorful.

### THE EFFECT OF COLOR AND PATTERN ON THE APPEARANCE OF ROOMS

Ceilings, walls, and floor, the largest areas in a room, have the greatest influence on its appearance. They need first consideration in your planning. Colored backgrounds:

(1) Color brings light into the room.

Ceilings. The ceiling is usually made lightest in color so that it will reflect light. White, tinted with a little of the wall color, ties the ceiling to

the color scheme. White alone may make too strong a contrast.

Walls. The color of the walls, whether in paint or in wallpaper, seems best when it is of a light tone or value that reflects both daylight and artificial light well. Dark walls do not reflect light, but if most of the other areas in the room are light in color, light will be reflected from them. Bright colors on walls may be irritating to the eyes and may cause fatigue. The colors that reflect the most light are the yellows or other colors that have much yellow mixed with them. If you use paint, dark rooms will be lightened if you choose a soft yellow-cream or ivory or light creamy-gray, banana-yellow, yellow-orange, yellow-green, peach; or if you use wall paper





Figure 5





Figure 6

with an open pattern on a white or a very light background in these colors.

Colors that reflect the least light are the reds and blues or hues that have much red or blue mixed with them. For very light or sunny rooms, soft blue-greens, creamy-grays, very pale green-blues, orchid, or antique-ivory are satisfactory because they reflect less light than do the yellows.

Floors. A floor covered with a medium-to-light-colored rug or carpet reflects more light and shows less soil than does a dark one. It appears more cheerful too. Dark browns, blues, reds, and greens reflect little light and are undesirable in rugs, particularly for dark rooms. Very light-colored floors and rugs increase the light in the room.

(2) Color shows furniture to advantage.

Furniture, to show well in a room, has to have some contrast in color and tone with the walls and rug. Dark furniture woods, that is, mahogany, oak, and walnut cannot be seen well against dark colors, such as dark blue, brown, green, or red in rugs and walls. With from medium to light tones of these colors, they show well. Light-colored, bleached, and painted woods need colored or dark backgrounds to show them off. Maple furniture looks well with soft greens and rust. Cherry is beautiful with soft blues and greens. Walnut is excellent with light browns, soft blues, and greens. Mahogany looks well with light rose and other soft blue-reds, purple-blues, greengolds, and similar colors.

On the other hand, you may have a piece of furniture you want to keep from showing because it is too large for the room, or is poor in shape, or is not right in color, or for some other reason. Such a piece will be inconspicuous if it is placed against a background near its own color or near its own tone, whether light or dark.

(3) Color shows the family to advantage.

Colors increase or take away from the attractive appearance of people as they do from rooms and objects. When you select a color scheme for your home, test it to see the effect it has on the appearance of the family. Choose background colors as carefully as you do colors for clothing. For example: Soft blues, greens, peach, reds and yellows are colors for blue-eyed blondes with clear, creamy complexions; creams, browns, tans, yellow-oranges, blue-greens, and blues make good backgrounds for brown-haired, browneyed persons. Maybe you have blondes, brunettes and red-heads in the family! Then you'll have to select a color scheme that looks well with all of them.

Illustrations of how color brings light into the room and shows furniture to advantage

Figure 5, A. Here the soft reds of the colorful pieces of maple and cherry furniture supply the main color in the dining room. This shows how furniture-woods may be a part of a color scheme. These colorful woods show well against the soft background colors of the plain green rug and

delicately patterned wallpaper which reflect enough light for the dining room. The patterned draperies repeat the colors of the woods, walls, and rug, and help to hold the scheme together. The touches of yellow-orange flowers and the color of the fruit add variety to the basic scheme.

Figure 5, B. When the background is fairly dark, then the furnishings need to be lighter to be seen and to reflect light. The green walls and rug in this bedroom reflect little daylight or artificial light. But the light-colored wood furniture, upholstered chair, bed-cover, curtains, and draperies, reflect enough light for a bedroom and create an interesting pattern against the dark background. The green color gives a restful, cool feeling and the colored pattern on the upholstered chair adds variety and interest.

Figure 6, A. In this living room the Oriental rug is the source for a twocolor scheme of blues and various shades of rose. The light rose of the walls is a tint of the deep rose in the rug. The dark colored furniture shows to advantage against the light rose walls. The pair of blue chairs repeats a blue from the rug and the mahogany tables repeat the deep rose. The blue and rose striped draperies bring the two colors together and up on the walls. The pink lamp shade, mahogany table, and blue chairs together make the scheme. If the walls and the draperies did not carry the scheme high up in the room, the effect would be dark and heavy at the floor and furniture levels.

Figure 6, B. This scheme was chosen from the rug which has a deep red background with reds, yellows, and blue-greens in the pattern. The rug draws much attention to the floor and it is important to bring this strong interest up on the walls as well. The yellow of the rug is repeated on the walls, bringing light into the room. One chair repeats a yellow and the other a blue-green from the rug pattern, both making a colorful contrast with the light walls. The collection of bells on the shelves, the large bell on the mantel shelf, and the opening of the fireplace bring the dark tone of the rug up on the light walls. This balances the contrast between the walls and floor.

The books, the vines over the fireplace, the green plate, and other colorful ornaments bring the colors in brighter hues on the walls and add sparkle.

### HOW TO OVERCOME ARCHITECTURAL DEFECTS

Ceiling too high. A high ceiling appears lower when:

(1) Its color matches the color of the walls.

(2) It is a little darker than the walls.

(3) A warm color is used, such as a tone of red or one having red mixed in it.

(4) For very high ceilings, a dark color, or one darker than the walls, or a warm color may be used on the ceiling and brought down on the walls for about a foot or farther. You may place a picture-molding or a narrow wallpaper border over the line where the wall and ceiling colors join.

A ceiling also seems to lose some of its height when the lower part of the wall is darker than that above it. That is, use a dark-colored wallpaper, paint, or wood on the wall for about 30 inches up from the floor. Then





Figure 7

paste a narrow wallpaper border, or paint a narrow strip over the line of meeting. Another way to cover the line is to nail a molding over it. Sometimes a plain, colorful rug or one having a large, colorful pattern may draw so much attention to the floor that the high ceiling becomes less noticeable.

With high ceilings it is wise to avoid wallpaper and draperies that have vertical stripes or floral patterns with a strong upward movement.

Ceiling too low. A low ceiling appears higher when:

(1) It is lighter than the wall color.

(2) It is white tinted a little with the wall color.

(3) The wallpaper has vertical stripes, or a vertical floral design reaching from the baseboard to the ceiling, and is without border.

(4) Draperies have a design of vertical stripes for plain walls, or plain draperies are of a different color from the walls (figure 7, B).

(5) Figured walls have plain draperies.

Room too large. A large room looks smaller and cozier when the wall-paper has a large or medium-sized all-over pattern, in warm colors such as peach, soft tan, or rust. Woodwork and draperies that are in contrast to the wall-color also make the room look smaller. These methods seem to draw in the walls. Small rugs, or a large, figured one, break up the expanse of floor and help to make a room appear smaller.

Room too small. A small room looks more spacious when plain walls, in light colors or cool ones, such as soft greens and blues are used, and when walls and woodwork are of the same color. If the wallpaper is patterned, you might choose various tones of one grayed color, or a pattern in soft colors that leaves large open spaces in the background. Dark colors, all-over patterns even though small, or those having strong contrasts of color, seem to draw the walls inward. When a figured wallpaper is used it is best to have the color of the background and of the woodwork match.

A plain rug, or one with a soft-colored, all-over pattern that covers most of the floor tends to enlarge the room. When draperies match the wall color,

or are a little lighter tone, they produce the same effect.

A square room. A square room appears longer when one wall is contrasted with the others. For example, use a figured wallpaper on three walls, and on the fourth, a plain color that matches the background of the patterned walls, or one of the most important colors of the pattern. A wall having windows in it may be the plain-colored one, and at those windows hang either plain-colored or figured draperies. A small square room may have a plain soft color on three walls and a different color or small figured wallpaper on the fourth wall. It is best to match the color of the plain walls to the background of the figured paper.

Room too long and narrow. A room is not usually in good proportion when it is long and narrow. To make it look wider and shorter make the

short walls a contrast to the long ones. Try some of these ideas:

(1) On the long walls, use a plain light color, such as green or blue, to make the walls seem to be farther away.

(2) On the short walls, use a plain, dark color, or a warm one such as brown, peach, or warm red to make them come forward, or use wallpaper in warm colors. Or you might have open shelves, filled with books, with a low storage cupboard underneath extending all the way across the wall from floor to ceiling. Another plan is to have a fireplace with shelves and cupboards on either side of it (figure 7, A).

(3) If you have windows on the short wall, the appearance of width may be increased by hanging colorful draperies at them. Or the draperies may be hung from the ceiling to the floor, extending from the corners of the wall

over to the windows and covering the window frames.

Walls cut up by many doors and windows. A room that has many doors and windows usually has small wall spaces. Patterned wallpaper in such small areas is likely to look spotty. The room will be more restful if plain wallpaper or paint is used there and the woodwork and walls are of the same color.

Plain-colored draperies or curtains in such a room may be a little lighter or darker than the wall, or be of a contrasting color. Or you might use patterned, dull-colored ones with a background that matches the wall.

### COLORS AND PATTERNS FOR DIFFERENT TYPES OF ROOMS

The type of color and pattern in each room should express the purpose for which the room is used. For example: rooms that are lived in for long hours at a time need to appear quiet, restful, and somewhat restrained. On the other hand, rooms that are merely passed through, or are lived in for short periods, or only once in a while, or those in which there is great activity, may have bright colors and gay patterns.

Hall. Halls are usually passed through quickly and most of them are too small for furnishings. Lively patterns and gay colors, or soft colors and formal patterns set the mood each family wishes to express when wel-

coming guests to their home.

Living room. This room is usually shared by the whole family. If your family rests there, listens to the radio, reads, converses, and entertains friends, then the colors and patterns should be restful but cheerful. Often the many small objects used in the living room create enough pattern. Such objects are books on shelves and tables, lamps, pictures, ornaments, flowers or plants, cushions, ash trays, and the like. These and the furniture need a quiet, colored background to make the room restful (figure 7, A).

If on the other hand, your family often plays noisy games, sings a lot, dances to the radio, and is generally more active, you will probably enjoy

gayer colors in your living room.

Dining room. This room is used generally for short periods at mealtime, or perhaps the children study around the table. Often the furniture is

formal, dark, and bulky, and many pieces are similar or alike. Usually there are few places in the room for ornaments to relieve the large, flat, wooden surfaces. Lively patterns and gay colors on walls, floor, and chair seats help to relieve the hard, monotonous appearance, and add interest. Also gaiety in color inspires sociability. When the furniture-wood is light-colored a colorful background is best.

Kitchen. You don't sit down often in the kitchen! You are preparing a meal, cooking, washing up or scrubbing. Clear colors are often used because they look clean, and they go well with white and cream-colored equipment and appliances. Gay colors in formal designs harmonize well with the whiteness and many straight lines of the stove, refrigerator,

cupboard, and the like.

The woodwork, including that of cupboards, looks well when painted the same color as the walls, or is a little lighter. White enamelled metal cupboards combine well with the light walls. Light tones of green or peach go well with cherry woodwork; and yellows, tans, and greens with oak and

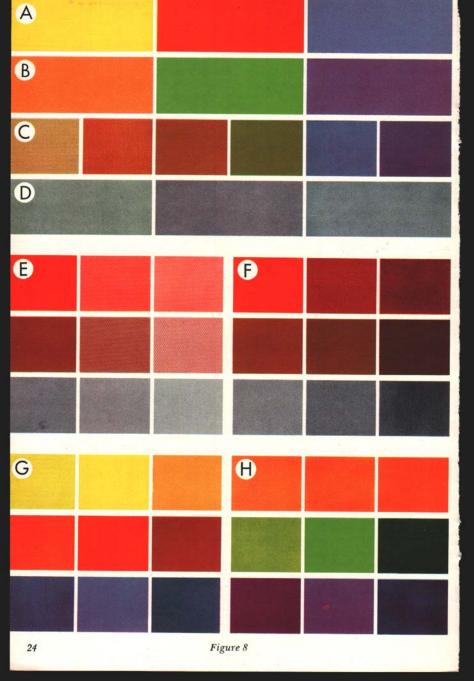
pine.

The whole kitchen may be papered if the wall spaces are large, but when wall spaces are small, it is wise to keep them plain to prevent a spotty appearance. Sometimes in a large kitchen, the wall on the dining end is papered and the rest of the kitchen and woodwork are painted in a color matching that of the background of the wallpaper or in a light value or tone of the main color in the pattern.

Bedrooms. Here you rest and sleep. Soft colors and quiet patterns help to prepare you for both. It is well to avoid lively, gay patterns and bright colors because they are exciting. Since many bedrooms are occupied by one or two persons, the choice of colors and patterns may be based on an individual's likes and dislikes. One person may like pale colors and no patterns; another may prefer soft dark colors and some pattern. Why not let each child have colors he likes in his own room?

Bathroom. A bathroom finished in white may appear cold to you. It will look warmer and more interesting if you choose colorful accessories. But it is best not to use too many colors in a room of the size of most bathrooms. One color repeated is less confusing than are several colors or a great deal of pattern. You might choose your color from window curtains with a pattern or a white ground. Then you can repeat this color on a plain shower curtain, the laundry basket, and in stripes on the bath towels, wash cloths, and bathmat. If you want a more colorful effect, try using towels and bathmat in a solid color.

When bathroom walls or fixtures are colored, then a two-color scheme may be used, such as green walls and yellow shower curtain, bathmat, and towels; at the windows, curtains with a yellow and green pattern. Sometimes the two-color scheme may appear in the shower curtain or bathmat and towels.



Illustrations of room color schemes

Figure 7, A. The color scheme of this living room is both cheerful and restful. The main color is the soft bluish-green of the wood panelling on one part of the short walls; the soft yellow of the other three walls makes a second color; the soft red of the fireplace brick, the rich blue-red of the mahogany furniture and the rose-taupe rug add the third one. All of these colors are brought together in the slip-cover. Some of them are seen in the picture over the piano. Single colors are repeated here and there on the bookshelves, in the yellow of the upholstery on the chair in front of the piano, the brass andirons in the fireplace, and the lampshade. The copper ornaments on the mantel shelf bring a brighter shade of the reddish hue in the rug higher up in the room, and make a beautiful color scheme with the green background. Some of the books and ornaments on the shelves bring a needed dark note up there too, as well as the sparkle and interest of bright colors. This end of the room with its varied colors is held together as a unit by the blue-green color. The room also shows that you do not need to have a bright-colored rug to make the room colorful, and that all the walls do not have to be of the same hue.

Figure 7, B. The basic color scheme in this living room is made up of soft red, green, and cream. The plain cream wall-color is tinted slightly with the red. The red davenport is a part of a fireside group; and back of the davenport is the music group; in the window is a radio grouping. The red, green, and cream upholstery on these seats makes an interesting and restful pattern on the plain green rug. The small patterns in the upholstery repeat the cream color in the walls. The figured draperies contain the cream wall color and the red of the upholstery. Books, pillows, lamps, flowers, and ash trays add other colors, sparkle, and pattern. The low ceiling looks higher because the draperies are a contrast in hue and tone to the wall-color, and they hang from the ceiling to the floor. The warm maple color of the furniture-wood blends nicely with the color of the upholstery and the rug. The weaving of these colors back and forth around the room helps to hold together the furniture groups and the color scheme.

Plain colors or those with the least noticeable pattern make a room appear colorful. Compare with figure 3, A.

### COLOR MIXING AND PAINTING

Training your eye

A part of knowing about color is training your eye to see color better. Exercises in arranging colors are helpful in improving eye judgment. Since most colors can be roughly divided into three groups, yellows, reds, and blues, you might start in this easy way: Collect small pieces in plain colors from cloth, construction paper, wrapping paper, envelopes, magazine covers, book jackets, wallpapers, advertisements, and the like. Cut from

each color a rectangular piece, about 1 inch by 1½ inches in size, until you have from 75 to 100 different colors, including blacks, whites, browns, and grays, and many bright, light, and grayed colors. A large assortment is needed to make the exercise effective. In collecting them you will learn a great deal about colors in use today.

Now take a clear, bright, yellow piece and under it place all colors that seem to tend toward yellow, such as creams, buffs, ivories, maize, corn, banana-yellow, yellow-pinks, yellow-greens or chartreuse, yellow-peach, yellow-orange, yellow-grays, yellow-beige, yellow-browns, yellow-grays, yellow-whites, and greenish blacks. Under clear, bright red, place pure redpinks, pinky-whites, red-blues or purples, red-oranges, red-browns, red-blacks, red-grays, pinkish-beige, lavender, and many others. In the third group, start with clear, bright blue and add bluish-whites, red-blues or violets, blue-grays, blue-beige, blue-blacks, blue-greens, and greens other than yellow-greens.

Experiment with your colored pieces in other ways, such as arranging them to shade from light to dark tones and from bright to dull or grayed colors.

These exercises will help you, especially if you are a beginner. Your eye will soon observe the slight differences that are in each color.

Color mixing

If you are a beginner, you need to learn a few color facts before you can mix colors successfully. Every artist and interior decorator knows and uses these facts.

Colors from the three color groups, yellows, reds, and blues, mixed together in various ways, make the many colors seen in wallpapers, drapery and upholstery materials, and in the many kinds of paint.

For exercises in mixing colors, use the three primary colors (yellow, red, blue), black and white. To lighten oil colors use white oil paint; to lighten watercolors and dyes use water instead. From these colors, you can produce all the others. And the more you practice mixing them the better trained your eye will become. The knowledge gained through experimenting will help you greatly in making color schemes and in matching colors.

Figure 8 (Page 24). Color mixing exercises. (Cover up all of the page but the part you are studying.)

Group A. Observe primary colors.

Begin by painting on paper or pasteboard yellow, red, and blue as these colors come from tubes or pans. Each of these three primary colors is a single color, that is, it cannot be made by mixing others together. See how raw and bright these three are!

Group B. Mix two colors.

Now mix two primaries to make a new color:

Orange is red with a little yellow added.

Green is yellow with a little blue added.

Violet is blue with a little red added.

Note that these combinations also are raw and bright.

Primary colors and mixtures of two of them (Groups A and B) attract attention. They are used on posters, sign boards, gas stations, and the like. Large areas of these colors are disturbing, so be careful not to use much of them in home decoration!

Group C. Mix three colors.

Now mix together all three primaries in unequal amounts. This will dull the colors in groups A and B. How dull a color becomes depends on how much of each primary you put into the mixture. To dull:

Yellow, add a little red and blue (or violet). Red, add a little vellow and blue (or green). Orange, add a little blue. Green, add a little red.

Blue, add a little yellow and red (or orange).

Violet, add a little yellow.

Group D. Make grays.

Mix together more nearly equal amounts of the three primaries to make grays. Make the proportion of the added colors smaller than that of the color being turned to gray.

To make: Yellow-grays, add red and blue (or violet) to yellow.

Red-grays, add yellow and blue (or green) to red.

Blue-grays, add yellow and red (or orange) to blue.

The colors in groups C and D are used for interior decoration and for clothing. They are dull and colorful, but not glaring so that they stay back in place. We say they are "easy to live with."

All colors, including those in groups A, B, C, and D, can be made lighter by mixing them with white. White makes strong colors lighter and less colorful (or intense). Mixing black with strong colors makes them dark and less colorful (or bright).

Group E. Use white to make colors light.

To make a light color, add to white paint a little strong color.

For a brighter hue, use less of white paint and a larger amount of strong color.

To lighten a deep or dark color a little, add a small amount of white paint.

Group F. Use black to make colors dark.

To darken a color a little, add a small amount of black.

To make the hue medium-dark, use less of the strong color and increase the amount of black.

To make a very dark tone, add to black a little of the strong color.

Groups G and H. Vary primary and mixed colors slightly.

Each color can be changed slightly before it becomes a different color depending on the amount of another color you add. For example: a touch

of blue makes clear yellow a green-yellow; more blue has to be added before it becomes green. A touch of red makes yellow slightly reddish before it becomes orange.

Red becomes a blue-red before it is purple, or a yellow-red before it is orange.

Blue becomes a green-blue before it is green, or red-blue before it is violet.

Green may be made yellow-green or blue-green.

Orange may be made yellow-orange or red-orange.

Violet may be made bluish, called violet, or reddish, called purple.

You may vary each color a little in this way before it changes and becomes a different color. This fact is important when making color schemes.

Other colors useful in tinting

Primary colors are simple and easy to use. But other colors produce the same hues (colors) that the primaries do and usually do it more quickly. Remember the three fields of color (red,yellow, blue) when using other colors and mix them as you would the primary colors.

Colors-in-oil used in tinting white or colored paints for use on walls,

furniture, and floors are:

Raw umber, a dark yellow-brown / Either of these dulls and

Burnt umber, a very dark red-brown darkens any color.

Use raw umber if the color is to have a yellow tinge, and burnt umber to give the color a reddish tinge.

Yellow ochre
Raw sienna dull brownish yellows. Either of these makes soft yellows.

Chrome yellow light, a lemon-yellow
Chrome yellow medium, an orange-yellow bright yellows.

Chrome yellow dark, a red-orange. This makes peach tints.

Chrome green light, a light yellow-green. This makes yellow-greens. Add white or ivory to produce a lighter tone or value. Dull with one of the umbers.

Chrome green medium, a green. Use black to darken or burnt umber to dull and darken, and white or ivory to lighten.

Chrome green dark, a very dark blue-green. This makes blue-greens. Add a little to white or ivory to make light blue-green. To make dull, add a little burnt umber, or raw umber.

American vermilion, a bright red

Alizarine crimson
Rose madder
Turkey red

bright blue-reds. These make
reds on the blue or purplish side.

Burnt sienna
Indian red
Venetian red
Venetia

Cobalt blue Ultramarine blue deep red-blues. These make blues on the purplish side.

Add a little American vermilion to make dull purples and lavenders.

Prussian blue, a dark green-blue. This makes blues on the greenish side.

Add a little Alizarine crimson to make bright purples, cerise, and lavenders.

Suggestions for tinting paints

Antique white: To white paint add a little raw umber and a few drops of Indian red until the white is slightly colored.

Creamy white: To white paint add a little raw sienna, burnt umber, and raw umber until the white is creamy.

Peach: To ivory or white paint add a little chrome yellow dark, and a little Venetian red or burnt sienna or Indian red, or to white paint add raw sienna and burnt sienna.

Beige: For rose beige, add to white paint a little American vermilion for the rose color, and burnt umber for the beige or gray color.

For yellow-beige, add to white paint a little yellow ochre or raw sienna; for the yellow and burnt umber for the gray color.

Warm gray: To ivory paint add some burnt umber; or to a French-gray ready-mixed paint, add yellow ochre and raw sienna; or to gray paint, add raw sienna.

Light soft yellow-green: To white paint add chrome green light and a little raw sienna and raw umber.

Soft light blue-green: To white paint add chrome green dark and a little raw umber.

Banana-yellow: Add to white paint chrome yellow medium and a little burnt umber.

Light blue: For a very light purplish blue, add to white paint a little ultramarine blue or cobalt blue and a touch of burnt umber.

For a very light green-blue, add to ivory paint a little Prussian blue and a little raw umber.

How to tint ready-mixed interior paints

Experience shows that truest colors are found in paints of the best quality. Poor-quality paints often do not make the color wanted.

If you buy ready-mixed paints in the exact color you need, you save time and money. When the exact color cannot be purchased, then mixing will have to be done in one of the following ways: (1) Add a little of one ready-mixed paint to another; (2) add colors-in-oil to ready-mixed paint, or add tinting compounds suggested by the paint manufacturer.

(1) Select a ready-mixed paint in a color nearest to the one desired. Then bring it to the required hue by adding a little ready-mixed paint of another color. Whether it is to be darkened or made lighter, made cooler or

warmer, or needs to be dulled or brightened, use ready-mixed paint for tinting. For example, if you want a soft yellow-green paint and can buy a green only, then purchase a small can of the same make of mixed paint in soft, dull yellow. Select it from the manufacturer's color card. Or if you want a bright yellow-green, then select a bright yellow paint. To mix, open the two cans and stir each well before mixing them together. Begin by adding a little of the yellow paint to the green paint. Stir well until they are thoroughly mixed. Dip a clean stick into the mixture to see how near to yellow-green it has come. Add a little more yellow paint if needed and test the result with another clean stick. Add a little at a time, then stir and test, until you have the yellow-green you want. Should the color be too light, stir in a little black paint. Or if it is too dark, add a little white paint. In this way the right color comes slowly and thus it can be controlled.

(2) In place of the small can of ready-mixed paint use colors-in-oil for ready-mixed oil paints. For example: If the can of ready-mixed paint is a red and you want a soft bluish red, then use ultramarine blue color-in-oil to tint the red paint. Add a little of it to a small amount of the red from the can. Mix until all the lumps and streaks entirely disappear. Then add a few drops or a very small amount of this mixture at a time to the can of red paint. Stir it in very thoroughly until no streaks of blue appear. Add more of the blue mixture if needed and test the color in the can after each addition.

It is interesting to mix you own. But it's tricky and requires considerable knowledge of color. Also it's likely to be more expensive. Here are some useful guides: For light colors, start with a good ready-mixed white, ivory, or a color much lighter than the one desired. Then add the tinting colors slowly. For dark colors, start with a medium bright ready-mixed paint, add the tinting colors, then stir in black or one of the umbers to darken further as desired. Caution: Large amounts of color-in-oil added to a ready-mixed paint may upset the manufacturer's formula so that the paint will not dry satisfactorily and it may be necessary to add some Japan drier. It is for this reason that it is better to start with a ready-mixed paint not too far from the color desired.

### HOW TO APPLY PAINT TO GET THE BEST COLOR EFFECT

Prepare the surface of walls, woodwork, floors, and furniture for painting. Before paint is applied, make all surfaces clean, dry and smooth, whether of wood, metal, or other material. This means free from dampness, grease, gummy or sticky substances, loose paint, and dust.

Oil paint and varnish will not dry on a damp surface nor over a partially dry coat of paint or varnish. They remain sticky, or crack, or peel. Let each coat dry thoroughly all the way through before applying the next coat.

If a new, unpainted wood or metal surface is in good condition, clean.

it with steel wool or fine sandpaper and dust it thoroughly before painting.

If an old painted surface is in good condition, roughen it or reduce its gloss so that the next coat will stick. To do this, wash it with strong soap and water, or with a thin paste solution of strong scrubbing powder and water. Rinse it well and let it dry thoroughly for at least 48 hours, then give it a light sanding and dust it thoroughly. This removes soil and gloss and gives a "tooth" to which the new paint will stick. But if the old paint is rough and marred, sand it down until all roughness and any marred spots disappear; or take the paint off entirely from wood or metal with paint-and-varnish remover. Remove lacquer with lacquer thinner only; remove shellac with alcohol; remove wax with turpentine or a non-inflammable dry cleaner.

Apply the paint

Paints are opaque, semi-opaque, or transparent. A good flat-oil paint, which is opaque, hides the surface well. A semi-gloss, which is semi-opaque, may allow the under surface to show through a little. Enamels, except for a few, are semi-transparent and varnish is even more so; both let the under surface show through. Water paints are opaque when mixed according to the formula on the container.

If a light-colored paint is to cover and hide a dark one, this plan helps to keep the dark under-paint from showing through the lighter top coats: Brush a white priming coat over the dark surface for a flat oil finish. Follow this with one or two coats of colored flat oil paint as needed. If the finishing coat is to be semi-gloss, enamel, or varnish, use a white undercoater, then a coat of flat oil paint in color, followed by a coat of colored semi-gloss, colored enamel, or varnish.

If a light-colored surface is to be painted with a darker color, follow the same method. Tint the undercoater with the selected dark color. Cover this when dry with the dark-colored flat oil paint. For a harder finish use semi-gloss or enamel in the color wanted.

If the new paint is to be of the same color as the old one, then one coat of the new is usually enough to cover and hide the old surface, if the new paint is of the best quality.

If a change from the old color is wanted, but one not darker or lighter than the old one, use a coat of flat oil paint in the color wanted. If semigloss or enamel is to be used for the final finish then make that the second coat.

### CONCLUSION

Here then, are ideas to work on in the making of your own color schemes. You'll be able to give new interest to your home, and the color harmony you create will make your home attractive and individual. Best of all, you'll have the satisfaction of having produced beauty that all who enter your house may enjoy.

This bulletin was prepared and written by Charlotte Brenan Robinson, Associate Professor, Department of Housing and Design, New York State College of Home Economics at Cornell University, Ithaca, New York. The author wishes to express her appreciation for their interest and assistance to: Professor Virginia True, Head, and Associate Professor Florence E. Wright, of the Department of Housing and Design, for suggestions and reading the text; the Department of Extension Teaching and Information: Professor William B. Ward, Head; Associate Professor Mary G. Phillips, Editor, College of Home Economics; Associate Professor Elmer S. Phillips, Richard Maurer and Gere Kruse, photographers of the Visual Aids Division.