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THE COMPARATIVE STABILITY OF COLORS IN WALLPAPER

J. M. LINDLY

The salesman of wallpaper is frequently asked if such a sample will fade, or is confronted with the bold assertion that such a specimen will do so. Usually, he is unable to answer the question definitely, or to deny the charge. Not having noticed any observation on the subject of the stability of colors in wallpaper, the writer was prompted to make a few tests or experiments.

Forty-six samples of wall paper, no two alike, representing as many colors, shades and tints, were exposed to the bright sunlight during the middle of the day for two days, making a total exposure of eight hours. This was done in the early part of August.

The results are classified into eleven groups, averaging about four samples to each group.

According to the average resistance of the samples of each group to the influence of the sunlight, the groups have been arranged in the following order of permanency:

1. The whites were unchanged.
2. The drabs were unchanged.
3. Buffs. Half the samples were unchanged; the others, being the darker, were slightly lightened.
4. Dark Blues. The darkest specimen was unchanged; the others were slightly changed but not sufficiently to attract attention.
5. Yellows. One, a high priced sample, showed no change; three showed slight change; the fifth, an ingrain, was much faded.
6. Dark greens. The two darker were slightly dulled. One of the lighter was apparently unchanged, while the fourth was much faded.
7. Dark browns. Half of these samples exhibited very little change, while the remainder betrayed a noticeable alteration.
8. Light browns. Two showed marked change; the third only slight.

9. Light greens. All showed change; a few very much.
10. Reds. All showed great change, the light ones and pinks having faded nearly white.
11. Light blues. All faded nearly white.

The foregoing is offered as the rule for the stability of colors in wallpaper, to which, like most rules, there are evident exceptions. These exceptions are probably due to a difference in the chemical material composing the coloring matter. It was observed that the light shades were more prone to fade than dark ones. The higher priced papers were more permanent than the cheaper ones, with a few exceptions. Gilt and mica were apparently unchanged. Red, pink, green and purple decorations, on any background, faded.

The question may arise as to the colors that were assumed in fading, that is, the colors resultant from fading. Specimens of the same papers were exposed during the spring, each for several days, to the strong light of the show window, and sometimes in the direct rays of the sun. The dark or deep reds became a dark purple, some of them of pinkish purple hue; the light reds became a light pink. The dark greens assumed a genuine slate color; the light greens approached white, some of them with a yellowish tinge. The drabs became lighter, approaching white. The browns assumed a dark reddish drab. Even the whites assumed a cream tint, which is, probably, the ultimate color into which a majority of all the other colors would finally fade.

When colored glass was placed over a light blue paper, the paper faded least under the green glass and most under the purple glass. When a red paper was treated in a similar manner, it faded least under the red glass and most under the green glass.

It is doubtful if there is any color used in wallpaper that is absolutely permanent. However, the gilt and mica, or the gold and silver, on the specimens subjected to the long-time exposure, showed no alteration.

Perhaps, the most permanent wallpaper would be that with a white or buff background with gilt and mica decorations.

WINFIELD, IOWA.