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A Science Service Feature

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? WHY THE WEATHER ?

Dr. Charles F. Brooks,  
of Clark University,  
discusses:

COLORS AND TEMPERATURES

In the tropics, white or light colored houses and clothing prevail because these reflect much of the heat of the sun which would be absorbed by darker colors or black. Even in middle latitudes, the matter of the heating qualities of various colors is worth some consideration. A few experiments may be cited.

In Khartoum khaki and white materials were compared. It was found that white drill exposed to the sun had a temperature about 20 degrees above the air, thin khaki drill, 52 degrees above, thick khaki drill 59 degrees above, and black cotton cloth, 74 degrees above, the air temperature. It was concluded that although khaki is serviceable, khaki uniforms in hot weather must cause unnecessary discomfort.

In Switzerland, a comparison of temperatures in wooden boxes painted various colors and exposed to bright sunlight, showed a similar gradation from light to dark. It is not surprising that whitewash is the universal house paint in the tropics. We would do well to follow suit and whitewash all refrigerator freight cars in summer.

At Panama, still another set of experiments was carried out. Steel blocks painted different colors were exposed to the sun and the temperatures recorded. In this case, although red is commonly considered a hot color, the red block did not get much hotter than the white and remained a good deal cooler than the green.

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