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Letters

A common denominator?

Is it possible that the common denominator in those suffering hysterical illness ("An Epidemic in the Works" SN: 9/18/82, p. 188) is not just a specific recent loss but a more generalized loss of control in their lives? Certainly a death or divorce can produce this feeling in children. It would explain why exploited and menstruating women are susceptible, for they are faced with conditions beyond their control. It would explain why schools and factories are frequent sites of epidemics, for their "inmates" can do little to control their environment and cannot avoid that environment unless they are sufficiently ill. It would explain why those who will call in sick are less susceptible, for they have found some control over their situation. Perhaps the threat implied by the index case represents one more uncontrollable stress at the same time that it demonstrates how to escape from and, therefore, regain some control of the entire situation.

Richard S. Blake
East Falmouth, Mass.

This Week

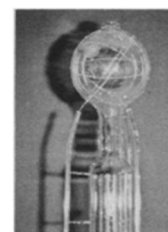
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- 358 A new, sound way to refrigerate
- 358 Yellow rain continues to fall, says U. S. gov't.
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Cover: This is a bottle designed by Blas Cabrera of Stanford University to detect magnetic monopoles. If a monopole goes through the globe, it will cause electrical signals in one, two or three of the metal bands laid around the circumference of the globe. (Photo: Stanford University)
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Different conclusions

This non-scientist artist art teacher of painting and drawing has been particularly interested in the study of light effects on forms ("Avoiding the 'plastic look' in computer-generated color images" SN: 10/23/82, p. 260), and my observations seem to have led me to different conclusions from those of Mr. Cook.

First, as I keep emphasizing to my students, who tend to put the same amount of light everywhere, that part or facet of an object turned most perpendicular to the direction of light, the source, reflects the most light, and as the form turns away from the source it reflects less (as it approaches the shadow side) so that my observation indicates that the amount of light reflected from an object's surface is constantly changing. Under the "ambient" bright overcast sky the "top" planes of the object will be brightest.

Second, light arriving from a lamp or the sun is hardly diffuse, as it exhibits the characteristics of very markedly arriving from one direction, with accompanying rather sharply defined cast shadows.

Third, Mr. Cook's analysis of the specular highlights being an expression of the principles of incidence and refraction is correct, but experienced painters will agree more with the assumption that the color of the highlight tends more to reflect the color of the light source. I say "tends" because the color of highlights depends upon the reflectivity of the surface object. At maximum reflectivity, as in a mirror, we will see the reflection of the source itself in, of course, its own color. Less reflective sources will be a mix of the local color of the object and the color of the light. One night in class our model had a shiny bald pate which perfectly reflected the overhead lamp! I tell my students that generally as the form turns more directly toward the light source and becomes lighter it tends to take on more the color of that source.

Lastly, were the pots reproduced painted by my students, I would have told them that with the light seeming to come from slightly to the left, they ought to have made the left edge lighter than the right.

Ted Seth Jacobs
New York, N.Y.

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