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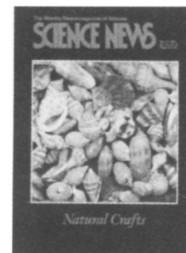
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Cover: The beauty and diversity of seashells hint at the wealth of knowledge that materials scientists can gain by probing the processes through which seashells and other biominerals form. Such research may lead to new synthetic materials inspired by or based on biological counterparts. (Photo: R. Tucker Abbott)



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Letters

Headaches: A hidden cause?

I read with interest your note on headaches and suicide ("A suicidal combination," SN: 3/14/92, p.173). I'm a psychotherapist who works extensively with severely traumatized individuals and thus with many people who are highly dissociative.

It is common for highly traumatized individuals, and those diagnosed with multiple personality disorder, to have severe headaches. There has been little research or writing on the interplay between severe trauma and later development of headache syndromes in adults.

Having read the work of Breslau, I wonder how many of those individuals with diagnosed migraine headaches also carry undiagnosed dissociative disorders left over from severely traumatic childhoods. This would account, in part, for the higher suicide rates and possibly some of the behavioral symptoms that may be seen as developing from headaches but are

actually dissociative in nature. It may be that such phenomena are a confounding variable hidden from both the patient and the researcher.

Randall L. O'Brien
Keene, N.H.

Dial-a-digit

If there are now only two possibilities for the middle digit of the area code, and it is proposed to increase this to 10 possibilities ("Refiguring phone numbers," SN: 3/14/92, p.175), the total potential area codes will consequently increase by a factor of 5. You state that there are now 144 possible area codes; thus, there must be $8 \times 9 = 72$ possibilities for the other two digits. Increasing the choices for the middle digit to 10 would generate the total potential area codes of $72 \times 10 = 720$, not 784 ($144 + 640$), as implied by the article. Am I missing something? I also note that 784 cannot be factored into three factors all of which are

equal to 10 or less; this leads me to believe that either there is some unstated law lurking here, or else the article is wrong. Please explain.

Paul S. Bruckman
Edmonds, Wash.

The 144 area codes arise because originally the first digit could be only 2 through 9, while the second was 0 or 1 and the third was 0 through 9. That yields $8 \times 2 \times 10$ possibilities, for a total of 160, but the possibilities with 1 in the second and third spots or 0 in both those positions were set aside as special (for example, 411 for information, 800 for toll-free, etc.). This proposed expansion would still limit the digits in the first position to 2 through 9, for 8×8 (because 0 and 1 are used up in the second position) $\times 10$ possibilities, or 640 total.

— E. Pennisi

My advice to Bellcore is to use telephone "letters" instead of telephone "numbers."

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