can nitrosylate $Ni(CN)_4^{2-}$ in a direct insertion reaction (*7*).

The intermediacy of NO^- in nitric oxide reduction by hydroxylamine has been explored in considerable detail (6, 8). The reactivity of NO^- formed in this source reaction is orders of magnitude less than that of trioxodinitrate-generated NO^- (6–8). This indicates occurrence of NO^- in singlet and triplet electronic states, as expected by analogy to the isoelectronic molecule O_2 and as substantiated by the production of the triplet anion on photolysis of the dianion $N_2O_3^{2-}$ (9).

The surprising capacity of NO to convert to HNO/NO^- by hydrogen atom abstraction is seen in reactions with $H_2N_2O_2$ (*10*), and with hydroxylamine and with its alkyl derivatives (6, 8, *11*). Finally, there has been a kinetic demonstration of direct nitrosylation by NO^- of the Fe(II) site in membrane-bound cytochrome *d* (*12*).

This incomplete recital shows that there is a rich and diverse aqueous solution chemistry of NO^-, much more so than in the gas phase. It seem likely that one or more of these features may help unravel the physiological function pathways for the Molecule of the Year, and for that reason they should be called to the attention of investigators who may be about to enter the thickets of nitrogen redox chemistry for the first time.

Francis T. Bonner
Department of Chemistry, State University of New York, Stony Brook, NY 11794–3400
Martin N. Hughes
Department of Chemistry, King's College London, The Strand, London WC2R 2LS, United Kingdom

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The "Molecule of the Year" review by Elizabeth Culotta and Daniel E. Koshland, Jr. (p. 1862), does not discuss the therapeutic use of NO in its chemical form as glyceryl trinitrate, more commonly (though incorrectly) known as nitroglycerin. Readers might think that NO only recently emerged as a subject for study in humans. The discovery of organic nitrates, principally nitroglycerin, as an effective treatment for angina pectoris dates back to the late 19th century (*1*), and the properties of nitroglycerin and its metabolites have been intensely studied over the past several decades. In the 1970s, several research groups found that nitroglycerin is metabolized in the body to form NO (*2*). The pharmacological effects of nitroglycerin—in the relief of angina, lowering of blood pressure, and relaxation of smooth muscle in many organ systems—all derive from its metabolism to form NO.

The therapeutic use of opiate alkaloids from the opium poppy anticipated the discovery of the endogenous pathways of endorphins and enkephalins. In similar fashion, the clinical uses of nitroglycerin antedated by more than a century the discovery of endogenous NO signaling systems and of a family of related NO synthase genes (*3*). Improvements in drug design and therapeutics of this venerable compound will likely emerge from recent findings about the molecular mechanisms of NO synthesis and metabolism.

Thomas Michel
Brigham and Women's Hospital, Harvard Medical School, Boston, MA 02115

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Tyrolean Paraphernalia

Horst Seidler suggests (Letters, 18 Dec., p. 1868) that the ice-bound prehistoric Tyrolean man (*1*) may have been using the fungus *Piptoporus betulinus* as an antibiotic but not necessarily as a hallucinogen. In Europe this opportunistic bracket fungus infects senile birch trees and, together with the related *Polyporus squamous*, is known as the razor strop fungus. For this function, strips of it were glued to a leather strap, a practice known to the barbers of Cesalpinus' day (*2*). Entomologists use it to make mounting blocks for small insects (*3*). It seems that that Tyrolean man was not tripping, but was well equipped for collecting insects or sharpening knives.

Michael L. Grant
Cancer Research Campaign Laboratories, University of Birmingham Medical School, Birmingham B15 2TJ, United Kingdom

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George B. McManus suggests (Letters, 18 Dec., p. 1867) that the prehistoric Tyrolean man might have died because of "overconsumption of prehistoric schnapps," but the distillation of alcohol was unknown until the 7th century in China, from whence the technique spread to Italy by the 12th century (*1*).

However, the prehistoric man may have carried some sort of fermented drink such as beer on his journey as refreshment, but with no intention of becoming intoxicated (a foolhardy thing to do in such a dangerous climb). His beer would have frozen and, when putting the container to his mouth, he would have found only a small portion that was liquid. This "frozen-out alcohol" would have been unfamiliar to him, rather fiery, and by no means unpleasant. Indeed, it would have been tempting to rapidly drink it all up.

Robert Temple
Hill House, Sutton Mallet, Bridgwater, Somerset TA7 9AW, United Kingdom

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It would be surprising if the ice man were not carrying birch polypore or its equivalent. Whatever this fungus' analgesic or antiseptic properties may be, it has been most widely used as a fire-starting tinder.

Norris Denman
350 William Birks Street, St. Bruno, Quebec, J3V 1P2 Canada

I would like to suggest a scenario that may explain why the ice man's ear was folded. A woven grass object, conjectured to be a cape, was found at some distance from the body entangled with the corpse's head hair, and a leather cap, with its fastenings still tied, was found, also at a distance from the body (*1*). Perhaps the ice man had pulled the grass cape over his head and then pulled the cap over that. The grass would have provided extra insulation for his head (as did the grass inside his leather shoes) and would have ensured that the cap fit very snugly. It would also have provided extra insulation for his shoulder area. With such a snug fit, one of his ears could have folded over and he might not have "consciously experienced" it. This scenario would explain why his hair was in contact with the grass cape. It might also explain the "numerous small impressions" (Were they knots in the grass weaving? Do they match the impressions?) that were found on his left forehead.

Kathryn A. Klar
Celtic Studies Program, University of California, Berkeley, CA 94720

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Sociological Discourse

Steven Shapin begins his review (5 Feb., p. 839) of Stephen Cole's book *Making Science* with the remarks that scientists do not apparently need the guidance of sociologists of science to do their work and that very few scientists have read the work of academic sociologists investigating them. Shapin's own review seems to point to one reason for this neglect—the sociologists' convoluted language, which is impressive but impedes understanding. For example, what are we to make of "If scientists were institutionally socialized into their stock of knowledge and associated evaluations, and if that very stock of knowledge constituted the normative structure of science, then how was it proper to distinguish the social and the cognitive?" or "For Cole, the 'accepted body of knowledge' is a 'cognitive factor' to be juxtaposed eclectically to 'social factors' "? I think that sociological studies of the way scientists work and how what is regarded as scientific knowledge comes into being are interesting, but if sociologists of science want scientists to read and assimilate their work, then they had better adopt a more didactic and less anfractuous discourse—sorry, the habit is catching—I mean, write more intelligibly.

Jan A. Witkowski
Director, The Banbury Center, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY 11724–0534