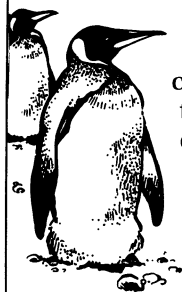


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dustrialization of agricultural production as a matter of public policy, quite apart from notions of risk and efficiency.

Mark Goodman
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Bethesda, MD 20814, USA

NAGPRA's Implications

I would like to add a comment to Virginia Morell's thoughtful article about the Native American Graves Protection and Repatriation Act (NAGPRA) and its implications for the archaeology of Native American people (News & Comment, 1 Apr., p. 20).

Contrary to the common assumption, NAGPRA does not mandate the reburial of human remains and funerary objects. The purpose of the law is to give control over final disposition of these materials to the most appropriate native claimant. While reburial may be the preferred option for some groups, others have chosen different alternatives, including long-term curation.

NAGPRA gives the archaeological community a unique opportunity to work with native claimants as colleagues. It is my experience that, whatever our tactical differences, archaeologists and native people share the same strategic concern—how does the past, and our knowledge of it, best ensure our future? Or, as the Iroquois would say, what is the impact of our decision on “the seventh generation”? While the final choice may belong to the native people, we can still play a strong role by working with them to assess their options.

Other behavioral sciences have learned to work with constraints when humans are involved. I believe the archaeological community can as well.

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There is a simple solution to the demands of the new laws requiring reburial of excavated American Indian remains: make Indian mounds out of the museums by covering them with dirt and dig them up as soon as the tide of political correctness has receded.

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Indirect Pesticide Costs

Petr Karlovsky (Letters, 4 Mar., p. 1208) questions the bird data used in our analysis (1) of the environmental impacts of pesticide use

by stating that “most modern pesticides do not seem to have an adverse effect on bird populations. . . .” He attributes this conclusion to Hall (2), but Hall made no such statement. Hall did conclude that pesticide impacts on birds have decreased with the banning of DDT and other chlorinated insecticides, but there are still major pesticide-poisoning incidents in U.S. bird populations. Karlovsky's statement appears to ignore a wealth of data concerning the toxicity of pesticides to birds (1-3). Some pesticides highly toxic to birds now in widespread use in the United States include methyl parathion, parathion, guthion, carbofuran, chlorprifos, terbufos, fonofos, and phorate (1-3).

Karlovsky further states that our figure of 10% (or 0.4) of all birds killed by pesticides per hectare per year is much too high, but does not present another statistic. Our estimate is based in part on the data of Mineau (3), who reports that the number of birds killed just by pesticide-treated seed and granules ranges from 0.25 to 8.9 per hectare per year.

Karlovsky also questions our value of \$30 per bird, but again does not suggest a more reliable published figure. A review of the literature indicates that the values per bird are as follows (1). The cost per individual for bird watching is 40 cents, the cost per bird for hunters is \$216, and the cost to rear a replacement bird is \$800. Thus, our \$30-per-bird estimate is relatively conservative, and this was confirmed by consulting with numerous wildlife specialists (1).

Related to this statistic is the fact that the Environmental Protection Agency (EPA) recently fined a company \$10 per fish killed (1). Karlovsky could substitute \$10 per bird in our analysis, and the total cost of direct costs of pesticide use would be about \$7 billion a year. Further confirming that our statistics were relatively conservative, we used a value of only \$1.70 per fish killed by pesticides, and not the EPA figure (1).

We welcome any scientific data Karlovsky would share on the indirect costs of pesticide use. We stick by our estimate that the environmental impacts of pesticide use are more than \$8 billion in the United States (1).

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