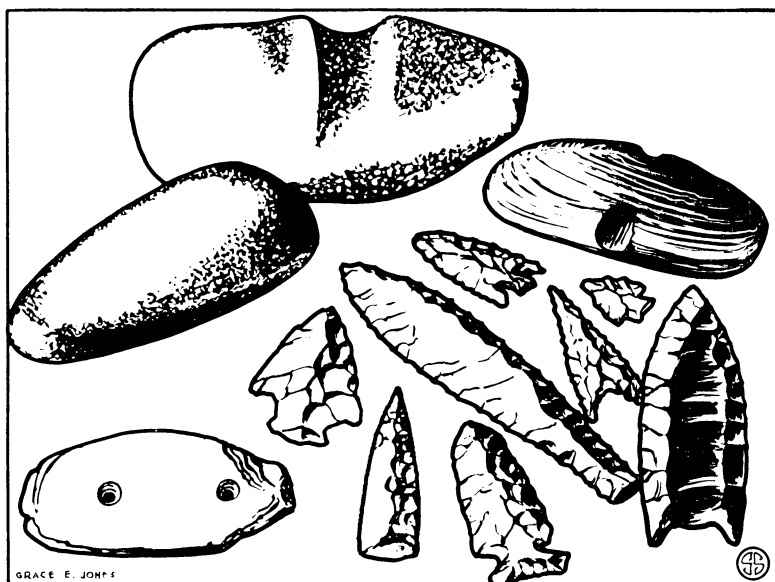


Inexpensive Summer Fun

Indian Arrow Points Are Interesting to Hunt

(Tenth of a series of 12 articles. Next week—Wild Fruits and Seeds.)



MANY KINDS OF RELICS

Indians made many things out of stone besides arrow and spear points. Included in the above illustration are a grooved ax, an ungrooved celt, a banner-stone (upper right) and a neck ornament known as a gorget (lower left). Rarest prize of all is the grooved point shown at lower right: a 10,000-year-old Folsom dart point.

INDIAN arrow points have always been favorite objects of collectors. There used to be more of them than there are now—indeed, in pioneer days there were often far too many of them, which their red-skinned owners were much too anxious to bestow upon their undesired new neighbors. But the Indians are gone now, from most of the land; only their relics remain, to be sought for by hopeful collectors, and perhaps found by the lucky ones.

Best way to hunt for arrow points and other things the Indians made is to walk slowly over recently cultivated earth, especially a few hours after a rain, keeping your eyes carefully on the ground. Every time you see a bit of sharp-edged stone projecting, pick it up. Not often will an arrow point be lying loose upon the surface. Much more frequently only an edge or a corner will be sticking out of the soil.

Of course, more than 99 times in a hundred your sharp-edged bit of stone will prove to be just that and nothing more. But once in a while you will be rewarded with the thrill that only a fortunate find can give. Do not despise your treasure if it happens to have a bit knocked off its tip or lacks a corner. You will find dozens of imperfect specimens for every perfect one.

Arrow points are by far the commonest kind of Indian relics you are likely to find. Arrows are shot at game, or loosed in battle, and may thus be lost. Or they may strike the quarry, merely wound it, and be carried away. Only after the animal dies does the decay of its body release the bit of stone to lie in the earth.

Yet by more than ordinary good fortune you may find other things the Indians made: the larger points of darts or spears, the grooved stone head of a

tomahawk, an ungrooved ax-like tool known as a celt, ornaments of various kinds. Rarest prize of all is a "banner stone"—a symmetrically formed, oblong, elliptical, or even butterfly-shaped piece of polished stone with a hole bored through it crosswise. Nobody knows what these pieces were actually used for, but their apparent uselessness as tools or weapons, and the position of the small hole, hint that they were carried on the ends of ceremonial wands or staffs.

Since these Indian weapons and tools are usually made of flint, jasper, or other hard stone, you don't need to take too great precautions with your collection. They may be kept loose in a box or drawer, so long as you don't mix big pieces and little too indiscriminately. That might damage the smaller pieces. Or, if you want to make a more easily examined exhibit, use a piece of wall-board, piercing holes on opposite sides of your arrow spear points and fastening them down securely with fishline or thin copper wire.

However or wherever you may go collecting, *don't dig*. Indian mounds, or other places that are supposed to be Indian graveyards, are always tempting. But they are so rare, and the secrets they hold are so valuable, that only expert scientists should ever stick a spade into them. Stories of treasures of gold and pearls hidden under Indian mounds are invariably false: mounds *never* contain anything you can sell for enough money to pay for the labor of digging. So it's better to let them alone.

For more information about collecting Indian relics and a list of books and pamphlets on the subject, send us a postcard with your name and address. Ask for Bulletin 10. Address Science News Letter, 2101 Constitution Ave., Washington, D. C.

Science News Letter, August 20, 1938

ART

Restore Old Paintings— With Science and Taste

IT IS PROPER to restore old paintings—provided this is done with science and taste.

This, in effect, is the verdict of Sir Kenneth Clark, director of Great Britain's National Gallery. He has come out for the policy of restoring old masters, whenever possible, to their original brightness and charm. Many canvases in the National Gallery are emerging from behind seven veils of "protective" varnish. One cleaning job has given England a new Velasquez, for dirt and repaint had hidden a Velasquez portrait of King Philip long rated as a lost work.

Sir Kenneth is well aware that resto-

ration is controversial, and has many vandal acts to its discredit.

"Until quite recently," he says, "the pictures in big country houses were periodically handed over to the house carpenter to brighten up as best he could."

The carpenter usually added a harmless coat of varnish, or a shiny coat of oil, which turned the painting black later. Or, given time and reserve energy, he would scrub at dirt and thick varnish with disastrous results. Professional restorers followed much the same tactics.

Until the mid-nineteenth century, it seems, the public admired dark brown pictures, by the confused reasoning that good paintings were often dark and therefore dark paintings were good. This thought enabled restorers to cover many a disaster by a coat of what Sir Kenneth derisively calls brown sauce.

Then, taste swung to light pink pictures, and one dealer kept a restorer busy giving ladies rosebud mouths. That fad, too, is over.

Now, with X-rays and infra-red rays, restoring is more enlightened work, literally. With these scientific aids, there is less excuse for false experiments. And a gallery director can more confidently decide what Sir Kenneth considers the big question: "Will the picture look more beautiful restored or unrestored?"

Science News Letter, August 20, 1938

ECOLOGY

Rays Influence Antlers, Austrian Studies Show

ULTRAVIOLET rays, known to have great influence in bone formation, appear to be as influential in the growth of deer's antlers, from the researches of Prof. N. Schuhmacher of the University of Innsbruck. Prof. Schuhmacher found that the antler growth of deer in the Austrian Alps was greatest in years showing the largest number of sunny days and average temperatures above normal.

Science News Letter, August 20, 1938

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PUBLIC HEALTH

Cities' Health Honor Roll Shows Low Diphtheria Rates

TWENTY cities are cited for praise by the American Medical Association in its annual survey of deaths from diphtheria.

These twenty had not a single death from diphtheria during 1937. Nine of them had no fatalities from this disease in the last two years. Ten of them have had neither diphtheria nor typhoid deaths.

Against the praiseworthy twenty are set nine cities with a record much less proud. These are cities in which diphtheria's toll has been heaviest.

The honor roll cities for 1937, as listed by the American Medical Association, are:

Bridgeport, Conn.; Cambridge, Mass.; Des Moines, Iowa; Duluth, Minn.; Elizabeth, N. J.; Erie, Pa.; Hartford, Conn.; Long Beach, Calif.; Lowell, Mass.; Lynn, Mass.; Omaha, Neb.; Reading, Pa.; Rochester, N. Y.; Somerville, Mass.; Spokane, Wash.; Springfield, Mass.; Trenton, N. J.; Utica, N. Y.; Wichita, Kan.; Worcester, Mass.

Of these, Bridgeport, Duluth, Long Beach, Lynn, Reading, Rochester, Somerville, Spokane, Utica and Wichita had no deaths from typhoid fever during the same period.

Utica has had no deaths from diphtheria in four years. Erie and Rochester have had none in three years.

At the unenviable end of the rating scale come the nine cities with the highest diphtheria death rate for 1937. These are:

Atlanta, Ga.; Birmingham, Ala.; Dal-

las, Tex.; Fall River, Mass.; Fort Worth, Tex.; Waterbury, Conn.; Evansville, Ind.; Knoxville, Tenn.; El Paso, Tex.

The A.M.A. has made fifteen annual reports of diphtheria mortality in the large cities of the United States. Since 1923, the first year, there has been a drop in the death rate of 13.13 per hundred thousand.

"It is evident that the various elements of the diphtheria prevention program have been extraordinarily effective," the Journal states editorially.

Science News Letter, August 20, 1938

PHYSICS

Northern Lights Not Noisy, Veteran Physicist Declares

NORTHERN Lights do not cause the rustling or swishing sounds frequently attributed to them, declares Dr. A. S. Eve, professor emeritus of McGill University and now resident in London, in a new publication of the Smithsonian Institution. It is physically impossible for them to make sound, he explains, because the 60-mile-high atmosphere where they surge and flare is so rare as to be a fairly high vacuum, and sounds can not exist or travel in a vacuum.

The noises heard and reported by many aurora observers, Dr. Eve suggests, are more probably due to electrical disturbances such as brush discharges occurring on the earth's surface near the observers, who fail to notice them because the Northern Lights are absorbing all their attention.

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