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LOCAL CONTRIBUTORS

What it takes to bring us life's simple things

If we are fortunate, as many of us in our bountiful country are, the season of Christmas and New Year is a time to wonder at the state of our lives and our world, and to notice small wonders that we normally overlook. If we are wise, we may see what matters and better appreciate how much we owe to the hard work and ingenuity of others.

We might learn from the most powerful people in our country. We might also learn from people who will be forever nameless. Recent events surrounding our secretary of defense have reminded us of how important the simple act of signing a letter can be. In writing officially to inform loved ones about the death of a soldier in service to our country, the time spent personally signing a letter conveys something humanly important to them. It brings reassurance that the same person of power who sent their soldier off to war has spent a few moments thinking about and sharing in the deep loss they feel.

Taking the time to write — i.e., to write down our thoughts and feelings with our own hands, to sign our own names as personal witness to what we have written — is a mark of our hard-won humanity. That so many of us have the tools and knowledge to do these things so readily is a marvel of the progress of civilization, science, labor, industry and education.

The next time you pick up a pencil to write a note, to draw or to make a simple mark, pause for a moment and think about the everyday miracle that is the pencil. In the long history of mankind, the pencil, more or less as we now know it, has been with us for just over two hundred years.

Pencil enthusiast Abdullah Ismail of Venus Pencil Company (PVT) Limited of Pakistan helps us feel the wonder of the pencil: "The ubiquitous, yellow (mostly), seven-inch . . . lead pencil (is) the simplest, most convenient, least expensive of all writing instruments. The wood-cased pencil is, perhaps, man's closest approach to perfection. The modern pencil can draw a line 35 miles long, write an average of 45,000 words and absorb 17 sharpenings. It is nearly weightless and totally portable. It deletes its own errors but does not give off radiation. It doesn't leak and never needs a ribbon change, isn't subject to power surges, and is chewable."

The pencil is also our first and truest friend in learning to write letters and words and to add and subtract numbers. It empowers us to look for and correct our mistakes. It helps us to work toward perfection in what we write and draw.

More marvelous than what the pencil can do is how and why this most democratic of all tools of communication even exists. If your pencil is already sharpened, take a look at the exposed wood now tapering down to the point. Keep looking. Rotate the pencil in your hand. See if you can detect the subtle differences in texture of the two pieces of wood that make up the pencil shaft. Then ask yourself, "How in the world did they cut and join the wood so precisely?" "How did they get that lead in there?" "Where does that lead come from?"

The lead is actually graphite. It was first mined for the making of the earliest pencils in 16th century England. The thin rods that made the modern pencil possible were developed in late 18th-century France and then in Germany (whence the Conté crayon and the Eberhard Faber pencil). They are a mixture of powdered graphite, water and clay. But the graphite has to be mined and processed, and that is hard and dangerous work.

If you are lucky, you can get someone like Professor Leon Long of the University of Texas Department of Geological Sciences to explain to you vividly how the graphite mine in nearby Burnet operated between 1900 and 1980. You can almost feel the blasting of big boulders from the open pit mining, the sweaty toil of loading and trucking, of rough sledgehammering and finer pulverizing. You do not have to breathe in and out all day long the particle-filled air of the processing rooms.

Much of the world's graphite is mined now in regions like Sri Lanka, Mexico, China and Brazil. Studies of miners in Sri Lanka between 1987 and 1993 revealed that as many as one in 12 had clear symptoms of lung disease from carbon and graphite dust inhalation, despite work environment regulations imposed in 1972. The graphite pneumoconiosis is progressive even after exposed workers stop working in the hazardous mining and processing environment.

What Ismail calls the "ubiquitous pencil" can everywhere remind us of the hard-won cumulative progress of mankind and the large price many pay for the wonderful things that cost us so little and mean so much.

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