

## "Don't be lazy."

Recently my wife and I took a trip to South America. Lasting three weeks, the trip was divided almost equally between stays at camps in the Amazon, travel between sites related to the Incan Empire, and a cruise in the Galapagos Islands. It was the most challenging trip we have ever taken. We were subjected to high heat in humidity, altitudes between 8,000 and 13,000 feet, and travel on the high seas in a small boat. We have determined the limits of our adventuring. Of the three places we visited, the visit to Cuzco and Machu Picchu was most intriguing. The remains of the Incan civilization, not as eroded by time as those of Greece and Rome, are there for visitors to examine. And while I was impressed by what I saw, I cannot admire the Incas and their handiwork.

Although Machu Picchu in its isolated setting between two mountains is memorable, a closer inspection shows that it was a work in progress. In addition to the massive outcroppings that punctuate the landscape, the structures, their construction, and the layout are not nearly as well executed as similar work in Cuzco, the once-capitol of the Incan empire. There you can see striking examples of the skill of the Incas as builders. (There are some pictures at http://web.mac.com/donoshea/iWeb/. Select "Following the Incas," then "The Incan Legacy.") Throughout the center of the town, the base of most buildings is an Incan wall consisting of unmortared, tight-fitting stones held together by gravity. Of these constructions, the most impressive, to me, was a street off the main square. It is remarkable for the quality of construction of its roadway and the precision of the walls of the adjacent buildings. There are far more complex instances of Inca building skill in Cuzco, but the street in its arrow-like layout has a roadway design that incorporates a central watercourse and sidewalks. But as I walked down this street the first time, and every time afterward, my reaction was: where are the wheel tracks? The Incas had no carts or other wheeled conveyances. Aside from the backs of porters, the lowly llama was the only creature that could carry a load, albeit a limited one.

Also missing, save for some decorative symbols, are writing, signs, or hieroglyphics. Along with the wheel the Incas never acquired writing, although 3,000 miles to the North, the Mayans did. As Jared Diamond explained in *Guns, Germs, and Steel*, the north-south orientation of the American continents prevented easy diffusion of peoples across climate zones, so the Incas never invented their own language nor learned one from others.

But for me, the most striking aspect of the Incas was their moral code that was reinforced daily as it was used as the common greeting. One was greeted in Quechua with a recitation of the code, "ama suwa, ama llulla, ama quella" (do not steal, do not lie, do not be lazy) and then replied, in effect, "And you too." My first response when I heard this was "Gee, that's a good way to encourage effort in a community." Later, I wondered if this wasn't just a form of social control. As I learned more of the organization of the Incas, the more it would appear the exhortation was intended to reinforce the official regimen. Between the negative spin on the commands and the final charge to keep busy, I doubted my initial response. Don't be lazy...?

It took a plague to send Newton back to Woolsthorpe. Einstein bided his time in the Swiss patent office. Both of these gentlemen were being lazy. They were at play inventing pieces of our world. Little of their work was useful at the time, but their discoveries moved their world ahead. How could a curious young Incan man navigate in a society that told him many times each day that he had to keep busy on the work at hand.

Most of our colleagues in engineering, who are good at what they do, will tell you that there are times they marvel at their good luck. Like a baseball player, the common observation is posed as a question. "They pay me to do this?"! Perhaps the Incan's need to maintain their agriculture output in the face of uncertain times and the need to hold together an extensive empire resulted in an intellectually impoverished culture that hadn't the time to figure out better means of transportation and recordkeeping.

But is it possible to "be lazy" today? As a boy I had the run of the neighborhood. We organized our own baseball games in back of the Serbian Orthodox church behind my house. The library was a hike, but I made it there on my own regularly from fourth grade on. The summers were mine. I wonder if it's possible for today's youth to be lazy when their time is used for video games, text messaging, YouTube, and organized soccer practice. But as one officially retired, I play.

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