

#CRAFTSMANSHIP

A Golden Legacy

The Roman-Egyptian Bracelet of the Metropolitan Museum of Art



Nestled within the treasures of the Metropolitan Museum of Art in New York City lies a remarkable artifact that bridges two great civilizations, Egypt and Rome. Dating back over 2,000 years, this exquisite gold bracelet offers more than just aesthetic beauty; it tells a story of cultural fusion, mythology, and ancient craftsmanship.

A Glimpse into the Roman Period of Egypt

This bracelet is attributed to the Roman Period of Egypt, a time when Roman influence merged with ancient Egyptian traditions to create unique forms of art and symbolism. Following Egypt's annexation by Rome in 30 BCE, the region became a melting pot of Greco-Roman and Egyptian religious, artistic, and cultural elements.

The bracelet, delicately crafted from gold, is a testament to this fusion.

Symbolism in Design: Serpents and Deities

At the heart of the bracelet's design are two intertwined snakes, forming what is known as a Herakles knot (also called the 'Heracles knot'). In antiquity, this knot symbolized strength and protection, and was often used in amulets and healing rituals. Its presence here not only showcases Greco-Roman influence but also hints at its protective, possibly magical function.

The serpents represent Agathodaimon and Theromouthis, spiritual beings associated with fertility, protection, and prosperity. Agathodaimon, a Greek serpent spirit, was revered as a guardian of households and fields, while Theromouthis (also known as Renenutet in Egyptian mythology) was a cobra goddess linked to nourishment and abundance.

Between these serpents stand Isis-Tyche and Aphrodite, goddesses repre-

senting powerful forces of fate, love, and fortune. Isis-Tyche combines the Egyptian mother goddess Isis with the Greek personification of luck, Tyche, a potent symbol of divine favor and fortune. Aphrodite, the Greek goddess of love and beauty, further emphasizes the bracelet's themes of attraction, fertility, and sacred femininity.

This combination of symbols not only decorated the wearer but likely served as a talisman, imbuing them with protection, favor from the gods, and perhaps even magical power.

Dimensions and Craftsmanship

Despite its age, the bracelet's craftsmanship remains striking. Measuring just 3.9 × 5.6 × 5 cm (1.6 × 2.2 × 1.9 in), the piece is small enough to be worn with ease but large enough to display its intricate details. The use of high-quality gold and the precision with which the figures are shaped and positioned speak to the advanced metallurgy and artistic sophistication of Roman-Egyptian artisans.

A Historic Acquisition

The bracelet's modern history is nearly as fascinating as its ancient origins. It was acquired in 1923 by the Metropolitan Museum of Art, purchased from the legendary British archaeologist Howard Carter, best known for discovering the tomb of Tutankhamun. The acquisition was made in Luxor, Egypt, using funds from the Rogers Fund, a long-standing resource supporting the museum's collection of antiquities.

A Treasure on Display

Today, the bracelet rests in the Met's vast collection, accessible to scholars, tourists, and history lovers from around the world. It stands as a testament to the rich cultural interplay of Egypt and Rome, the enduring power of ancient mythology, and the artistry of civilizations long past.



Mushrooms Talk to Each Other Using Fungal Language!



• Verna Mohon

You may not think mushrooms can talk but one scientist claims they communicate with each other, using up to 50 words. The study, titled 'Language of fungi derived from their electrical spiking activity,' by Andrew Adamatzky, who runs the appropriately named Unconventional Computing Laboratory of the University of the West of England, has everybody talking. Some are not taking his research seriously, comedian Jimmy Fallon accused him of 'talking shiitake.' Adamatzky, who previously published research about building a fungal computer and dressing up in living wearables made from slime mold and fungi, inserted electrodes into four different kinds of fungi: ghost fungi (*Omphalotus nidiformis*), Enoki fungi (*Flammulina velutipes*), splitgill fungi (*Schizophyllum commune*), and caterpillar fungi (*Cordyceps militaris*).

He observed spikes of electrical activity, which is common in all creatures. However, the fungi displayed changing patterns of activity that could be interpreted as communication.

"We observed bursts of spiking in the trains of the spike similar to that observed in the central nervous system. While the similarity could be just phenomenological, this indicates a possibility that mycelium networks transform information via interaction of spikes and trains of spikes in manner homologous to neurons. First evidence has been obtained that, indeed, fungi respond to mechanical, chemical and optical stimulation by changing pattern of its electrically activity and, in many cases, modifying characteristics of their spike trains."

In other words, they appear to be responding to what is happening to them and then talking about it.

Much depends on one's definition of 'language.' Adamatzky discusses communication among creatures without a nervous system through hormones, pheromones, and chemicals. This is not language as humans think of it, but trees are talking and we should take what they are saying seriously. Adamatzky notes, "A modified conception of language of plants is considered to be a pathway towards 'the de-objectification of plants and the recognition of their subjectivity and inherent worth and dignity.'"

So, the question is: Are the patterns of long and short electrical spikes actually language? Listening to mushrooms takes patience. The fast-talking spikes take 2.6 minutes and the more languorous ones are 14 minutes long.

The Ents in Fangorn Forest are chatterboxes by comparison. When all the spikes were plotted out, Adamatzky compared the patterns of spacing and gaps to those of the English language. He studied the

patterns in the spike trains and concluded they are definitely having words among themselves.

The study states, "We recorded extracellular electrical activity of four species of fungi. We found evidences of the spike trains propagating along the mycelium network. We speculated that fungal electrical activity is a manifestation of the information communicated between distant parts of the fungal colonies."

Looking at the repeating patterns, he found that the 'size of fungal lexicon can be up to 50 words; however, the core lexicon of most frequently used words does not exceed 15-20 words.'

The different species of fungi spoke different languages with varying degrees of complexity, and Adamatzky admits that he doesn't understand what they are saying. "That said, we should not expect quick results: we are yet to decipher language of cats and dogs despite living with them for centuries, and research into electrical communication of fungi is in its pure infant stage," writes Adamatzky in the study.

Indeed, in another paper, 'Fungal States of Minds,' released at the same time but not yet peer-reviewed, Adamatzky and his team of researchers use the same data and go further than asking whether fungi communicate, but whether they actually think.

"Fungal organisms can perceive the outer world in a way similar to what animals sense. Does that mean



Looking at the repeating patterns, he found that the 'size of fungal lexicon can be up to 50 words; however, the core lexicon of most frequently used words does not exceed 15-20 words.' The different species of fungi spoke different languages with varying degrees of complexity, and Adamatzky admits he doesn't understand what they are saying. "That said, we should not expect quick results: we are yet to decipher language of cats and dogs despite living with them for centuries, and research into electrical communication of fungi is in its pure infant stage," writes Adamatzky in the study.



Ghost fungi (*Omphalotus nidiformis*)



Enoki fungi (*Flammulina velutipes*)



Splitgill fungi (*Schizophyllum commune*)



Caterpillar fungi (*Cordyceps militaris*)

#COMMUNICATION



Caterpillar fungi wired for sound and being analyzed.

that they have full awareness of their environment and themselves? Is a fungus a conscious entity? In laboratory experiments, we found that fungi produce patterns of electrical activity, similar to neurons. There are low and high frequency oscillations and convays of spike trains. The neural-like electrical activity is yet another manifestation of the fungal intelligence."

At times when reading this paper, it seems Adamatzky has been eating too many of certain varieties of his subjects, especially when he delves into what it must be like to be immortal, as certain fungi apparently are, with an intelligence possibly different and greater than our own.

"An immortal, or even extremely old consciousness, would be able to develop, perhaps, an intelligence out of reach for us, pursuing objectives that might seem unreasonable, for our limited perception. Perception of space and time, causality, are all aspects that we consider our unquestionable bottom line. But given the peculiarity of fungi morphology and degree of connection, we may imagine how radically different computational schemes are embedded into a fungal consciousness."

This all sounds a bit much, but admittedly, Breyer has been saying much the same thing as a champion of trees, writing: "They have no need to boast about how great they are, they just live their stoic lives and do their work. But meanwhile, unbeknownst

to most of us, the secret lives of trees are wildly deep and complex. They can count and care for each other, they recognize their offspring, they form bonds like old couples, they are aware of their neighbors and give them room, they form friendships and remember their experiences."

Rereading Breyer, I am becoming uneasy about my promotion of mass timber construction. Reading Adamatzky, I am wondering if mushrooms are off the menu. Both force us to reconsider our place in the world.

When Fungi Fight Back

A mushroom species was found to sense predators and sent warning signals to other parts of its body, but how it does that remains a mystery. It's known as fight or flight, the message the brain sends your body when it detects something frightening. Something like it happens to plants when they are under attack, too. And then there are fungi, perhaps, the most mysterious kingdom of multicellular life.

Fungi too can sense attackers and manufacture powerful weapons to combat them, including the toxins and poisons that can send you to the emergency room if you eat the wrong mushroom.

This all sounds a bit much, but admittedly, Breyer has been saying much the same thing as a champion of trees, writing: "They have no need to boast about how great they are, they just live their stoic lives and do their work. But meanwhile, unbeknownst



rajeshsharma1049@gmail.com

The Fall of the Berlin Wall: A New Era of Freedom

On November 10, 1989, the Berlin Wall's gates continued to come down, following the historic announcement of its opening the previous day. Erected in 1961, the Wall had long symbolized the deep divide between East and West Germany and the broader tensions of the Cold War. Its dismantling marked not just the physical reunification of the city, but also the symbolic end of decades of ideological separation. Crowds of jubilant citizens celebrated together, chipping away at concrete barriers and embracing newfound freedom. The fall of the Wall remains a powerful testament to hope, unity, and the triumph of liberty over division.



#PHRASES

"Mind your Ps and Qs"

Hidden Histories in Everyday Speech



Language is full of phrases that have lived far longer than the people who first spoke them. These expressions roll easily off the tongue, but behind their simplicity often lay a rich history of culture, religion, and everyday life. Three such sayings, 'the blind leading the blind,' 'a red-letter day,' and 'mind your Ps and Qs,' have endured through centuries, each carrying a story as vivid as the words themselves.

The expression 'the blind leading the blind' describes a situation where those who lack knowledge or understanding are guiding others who are equally unaware. It paints a picture of confusion and futility, a journey with no direction. The phrase has ancient roots, appearing in multiple religious texts. In the Gospel of Matthew (15:14), Jesus warns, "If the blind lead the blind, both shall fall into the ditch," emphasizing the dangers of ignorance and misguided leadership. Interestingly, similar imagery also appears in Buddhist scriptures, where the 'blind leading the blind' symbolizes spiritual

ignorance. Centuries later, the Renaissance painter Pieter Bruegel the Elder immortalized the proverb in his haunting 1568 masterpiece *The Blind Leading the Blind*, depicting a chain of men stumbling helplessly into a pit. Over time, this phrase became part of everyday English, still used whenever poor leadership or misinformation leads to collective failure.

In contrast, 'a red-letter day' carries a tone of joy and celebration. Today, we use it to describe a special or memorable occasion, a day worth remembering. The origin of the phrase lies in medieval Europe, where church calendars marked holy days and festivals in red ink, while ordinary days appeared in black. These 'red-letter days' were often times of rest, worship, or community celebration. As printing developed, the practice continued in almanacs and public calendars, reinforcing the association between the color red and importance. Over the centuries, the phrase evolved from a religious reference to a more general expression of happiness. Whether it's a wedding, graduation, or national celebration, a nudge towards attentiveness and civility.

'red-letter day' remains a symbol of brightness and meaning, a day that stands out in the calendar of life.

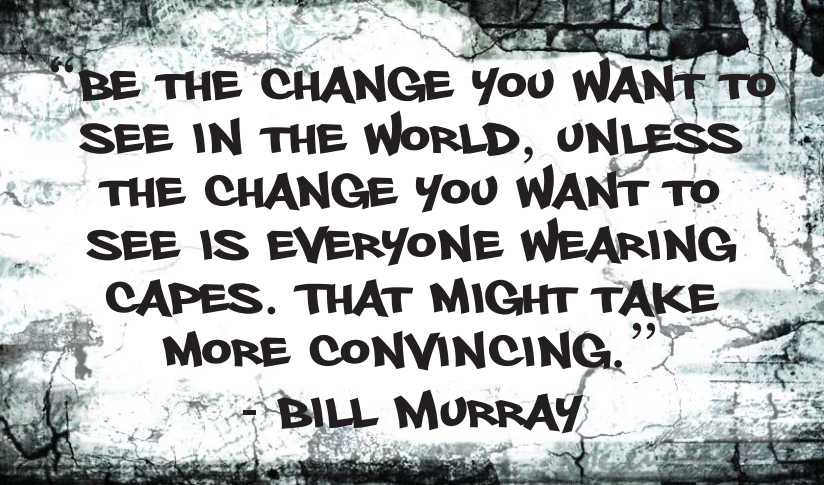
The third phrase, 'mind your Ps and Qs,' has a more mysterious origin and several competing explanations. Commonly, it means to be careful with one's manners, behavior, or details, to act with politeness and precision. One theory traces the saying back to early printing shops, where typesetters had to arrange letters by hand. Since the lowercase 'p' and 'q' looked nearly identical in reverse type, apprentices were often reminded to 'mind their Ps and Qs' to avoid mixing them up. Another story places the phrase in old English taverns, where bartenders recorded customers' drinks on a chalkboard, marking 'P' for pints and 'Q' for quarts. A customer told to 'mind their Ps and Qs' was being asked to keep an eye on their tab. A third explanation suggests that the phrase evolved from a reminder to 'mind your pleasures and thank-yous,' reinforcing good manners and politeness in social settings. Whatever its true origin, the expression endures as a gentle nudge towards attentiveness and civility.

What all three phrases share is longevity and adaptability. They began in vastly different worlds, ancient temples, medieval monasteries, and early print shops, yet, all remain part of our modern vocabulary. They remind us that language is not static; it carries with it the experiences and wisdom of those who came before us.

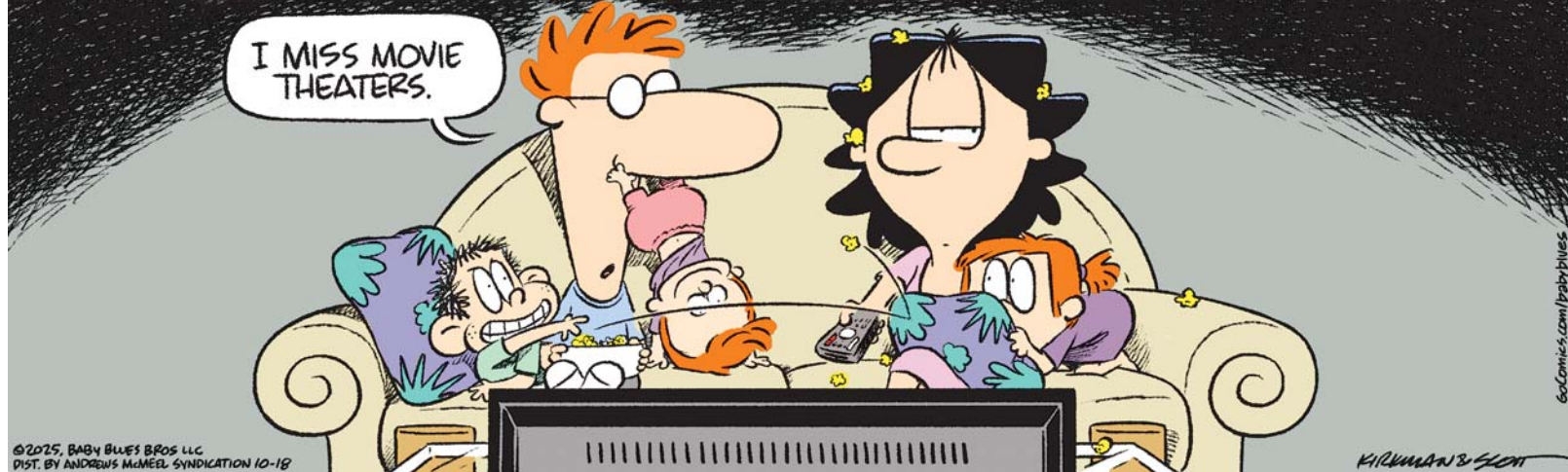
So, the next time you warn someone about 'the blind leading the blind,' celebrate a 'red-letter day,' or remind a friend to 'mind their Ps and Qs,' remember that you're speaking words shaped by centuries of human history, words that continue to connect our everyday speech with the past.



THE WALL



BABY BLUES



By Rick Kirkman & Jerry Scott

ZITS



By Jerry Scott & Jim Borgman