



READER SUBMISSION

Inside a young numismatist's COLLECTION

A young collector's quest to preserve the metallic heritage of the Bengal region

RAFAAD KARIM

My journey into the world of numismatics began when I was eight years old. Armed with my *salami* and accompanied by my parents, I began exploring the small, dusty antique shops tucked away in different parts of Dhaka. On my ninth birthday, my father gifted me my first gold coin: a tiny "Fanam" from the era of Tipu Sultan. Soon after, my grandfather gave me a unique, square-shaped five *paisa* from the early days of independent Bangladesh.

My collection began to grow, moving from common alloys to rare gold, silver, and copper. One of my most prized pieces was a gift from my mother—a gold medallion of the Bengal Presidency.



Through my research, I discovered it was struck in the 18th century under Mughal Emperor Shah Alam II.

Today, my collection is a physical timeline of our wonderful region. I have catalogued pieces from the Gupta and Pala dynasties, the Bengal Sultanate, the Mughal Empire, British India, and the East Pakistan period, leading up to modern-day Bangladesh.

I now spend my time following global auction houses and online forums to exchange knowledge with collectors worldwide. Each time I add a rare coin to my album, I feel like I am preserving a small piece of our history.

The author is a 10-year-old numismatist and history enthusiast based in Dhaka, Bangladesh.

Editor & Publisher
Mahfuz Anam

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DID YOU KNOW?

Farming, the Industrial Revolution, and the fragility of our teeth

RISING STARS DESK

In a study by *Nature Genetics* published in 2013, the impacts of dietary changes on our ancestors' teeth were unearthed, a phenomenon that was equal parts intriguing and devastating. The research suggests that the dietary changes which emerged due to the Industrial Revolution in the 18th century, as well as the advent of agriculture many years before that, led to an epidemic of tooth decay and gum disease.

The human mouth is home to a wide variety of microbes. Not all are helpful, of course; some actually pose danger. Given how our dietary intake has evolved, with an inclination to consume more starch and sugar, our mouths have become breeding grounds for bacteria-causing species to thrive. Alongside high rates of cavities and plaque, we are also more likely to have misaligned teeth that require orthodontic treatment or surgery. Even though our ancestors were not beholden to the miracles of modern dentistry advancements, there is a good chance they might have had better teeth than we do.

Early adaptation of wheat and barley into the human diet following the beginning of farming caused the oral ecosystem to change. It gave way for gum-disease-causing species to flourish.

Likewise, when processed sugar and flour became an important part of our nutritional intake following the Industrial revolution, the ecosystem shifted once more. This time it favoured decay-causing species.

In tandem with these advancements, another noteworthy development unfolded: plummeting diversity in the oral ecosystem.

There simply aren't as many species living in our mouths as there used to be. Nonetheless, greater biodiversity is associated with healthy, resilient ecosystems, which could explain why we have seen a surge of dental disease in the modern age. A narrow range of microbes makes our teeth more vulnerable to invasions by species that cause disease, cavities, and other dental problems.

To understand why some of the most integral advancements in the history of humanity led to the collective deterioration of our teeth, we must turn to evolutionary medicine. Our bodies are best acclimatised to the environment in which we as a species have spent most time, not the one we have created for ourselves today. As such, natural selection has not

been able to keep up with the leaps that human culture has hurled itself towards and the innovations—such as farming—that it has devised. This is a solid case of evolutionary mismatch. Archaeological evidence reveals that cavities were rare in humans until the beginning of the Neolithic period, some 6,000 years ago.

The book *What Teeth Reveal About Human Evolution* further notes that, nearly all throughout human history, our ancestors consumed foods that were hunted or gathered. This is in stark contrast to our dietary habits that can be characterised by soft, processed and sugary foods, which are unlike the diets for which our teeth are adapted. But because our dietary habits are relatively recent, we do not possess the ability to deal with an influx of sugar and starch, making us vulnerable to the perils of dental disease. It is also worth noting that advances in the field of dentistry occurred in conjunction with changes in our food habits.

On your next visit to the dentist, when they inevitably berate you for your poor dental habits, remember that the fault isn't entirely yours. Regardless of who or what might be to blame, it is the dentist who will most likely make a pretty penny at your expense.

