



Honouring the Spirit of Flight

ational Aviation Day, observed annually on August 19, celebrates the history, achievements, and future of aviation. Established in 1939 by President Franklin D. Roosevelt, the day coincides with the birthday of Orville Wright, one of the pioneers of powered flight. It recognizes the technological advancements that transformed travel, commerce, and global connectivity. On this day, people reflect on the progress from early experimental aircraft to modern aviation innovations, while educational events and museum visits inspire interest in aerospace careers. National Aviation Day highlights human ingenuity and the enduring quest to explore the skies.

#DNA

The Story of Khutulun

The Badass Granddaughter of Genghis Khan.



When people think of Genghis Khan, the fearsome Mongol conqueror who built one of the largest empires in history, they often imagine battles, horses, and a relentless army of warriors. But behind the mighty conqueror was a family of fierce individuals, none more badass than his granddaughter, Khutulun, a Mongol princess and warrior whose legacy rivals that of any legendary fighter.



A Warrior Princess Like No Other

Born in the 13th century, Khutulun was the daughter of Kaidu, a grandson of Genghis Khan, and grew up amid the vast Mongol steppes, a place where strength and skill in battle were the keys to survival. From a young age, Khutulun proved herself to be an exceptional horsewoman, archer, and wrestler, earning a combination even among Mongol men.

Her physical prowess was legendary. Historical

accounts, including those of the Venetian explorer Marco Polo, describe how Khutulun challenged suitors to wrestling matches and promised to marry only the man who could defeat her. Unsurprisingly, none succeeded. Instead, as a wager, she demanded that each defeated suitor give her his horse, amassing a stable of over 10,000 horses, an incredible symbol of her dominance and independence.

Defender of the Mongol Empire

Khutulun was not just a sportswoman; she was a key military leader and strategist. She fought alongside her father in battles to defend their territory and played a critical role in maintaining the power of their faction during turbulent times. Her reputation as a fearless warrior struck fear into enemies and

earned her respect among allies. Unlike many women of her time, Khutulun commanded troops, participated in warfare, and had significant influence in Mongol politics. She challenged the traditional gender roles of the era, carving out a space for women in leadership and combat.

Legacy of Strength and Independence

Khutulun's story is not just one of strength but also of fierce independence. She chose her path on her own terms, rejecting marriage proposals unless her suitor proved his worth, and prioritizing her role as a warrior and leader over

societal expectations. Her legacy has inspired countless stories, books, and films that celebrate her as one of history's most badass women. She stands as a testament to the fact that courage and leadership know no gender.

Why Khutulun Matters Today

In a world still grappling with gender norms and the recognition of female strength, Khutulun's story resonates powerfully. She was a woman who not only survived but thrived in a male-dominated world, reshaping what it meant to be a leader

and warrior. By remembering Khutulun, we honour a lineage of women warriors and leaders who have been too often forgotten by history. She reminds us that power, skill, and bravery are universal qualities that transcend time and culture.



Leonid operates on himself.



The team of people helping her sew her wound back up after taking the sample.



Dr. Evan O'Neill Kane.



Self catheterization by Werner Forssmann.

Surgery? Do It Yourself!

Leonid Rogozov successfully performed an appendectomy on himself during a Soviet Antarctic expedition as he was the only physician available. He was a twenty-seven-year-old and was to serve on the team of thirteen as their only doctor. After several weeks on the expedition, he noticed symptoms of weakness, fever, nausea and pain in his right lower quadrant of the belly: all classic signs of appendicitis. As a surgeon who had routinely performed appendectomies, he could identify the symptoms easily and he knew that the only way to treat his ailment was to undergo an operation. He faced two problems, he was the only medically qualified person on the expedition and he could not be flown out because of several severe storms. As the days passed, his condition worsened and the available treatments (cooling, antibiotics) did nothing to rectify his deteriorating status.



Dr. Goutam Sen
CTVS Surgeon
Traveller
Storyteller

Have you ever wondered who amongst us human beings will use a sharp instrument against another? For me, there are only two types that come to the mind readily. The person must be either a demented person capable of murder or a surgeon. The murderer has got such a deranged mind that this action is done deliberately and without remorse. The action is premeditated to do harm or kill. For a surgeon, on the other hand, the moment they first wield the scalpel is a complex and often overwhelming experience, a confluence of awe, responsibility and a touch of trepidation. It's a rite of passage that marks the culmination of years of rigorous training and the beginning of a profound journey into the intricate world of the human body.

I recall the first time I wielded my scalpel on a human being. I was already a resident and in the second year of my training as a surgeon. I had by the time watched and assisted many surgeries. It began with lancing an abscess to major surgeries requiring many hours. This

process gradually calmed the qualms of doing harm to the human body. Seeing blood flow from the wound created did not evince the common response of having done harm but a feeling of a controlled effort to do good! Alongside the awe, a palpable fear is almost universally present. It's not a paralysing fear, but a healthy dose of apprehension. The fear is of making a mistake or causing unintended harm and of not living up to the immense responsibility. Every incision carries consequences and the young surgeon is acutely aware of the patient's vulnerability and the trust they have placed in them. This fear often drives meticulousness and a heightened sense of focus.

It is an experience which is hard to describe. For a common person, the skin is soft delicate surface which is easily damaged. It comes as a surprise when the scalpel is wielded on the skin that it is not so delicate after all. A fair amount of controlled force is required to breach it. The first act of surgery is to learn the right amount of force required. With practice, it becomes such a smooth step that the observer never realises the procedure. For many it's a moment of intense focus, almost meditative. The noise of the operating room fades and the surgeon becomes acutely aware of the delicate dance between their hands and the patient's tissues. It's a moment that irrevocably changes them, marking their transformation from student to healer.



Leonid Rogozov.

respectful manner each tissue is dealt with. The healing also will be reflected by the tissue handling. While perhaps, not an immediate burst of elation, there is a profound sense of satisfaction and a quiet joy. It's the joy of finally being able to apply their knowledge and skills to directly help another human being. It's the culmination of a long and arduous journey and the first cut signifies the practical application of their life's calling. There's also immense relief. A sense of 'I can do this' that gradually builds as they navigate the initial steps of the procedure. For many, it's a moment of intense focus, almost meditative. The noise of the operating room fades and the surgeon becomes acutely aware of the delicate dance between their hands and the patient's tissues. It's a moment that irrevocably changes them, marking their transformation from student to healer.

Normally, surgery is done by surgeon on a patient. There are a few occasions when the surgeon operates upon oneself. While highly unusual and generally discouraged due to the inherent risks and ethical considerations, there have been rare and remarkable instances of surgeons performing procedures on themselves. This is often out of necessity or in extreme circumstances. These acts highlight an extraordinary level of courage, self-reliance, and, sometimes, desperation.

Leonid Rogozov successfully performed an appendectomy on

#THE BRAVE



Dr. Evan O'Neill Kane.

himself during a Soviet Antarctic expedition as he was the only physician available. He was a twenty-seven-year-old and was to serve on the team of thirteen as their only doctor. After several weeks on the expedition, he noticed symptoms of weakness, fever, nausea and pain in his right lower quadrant of the belly: all classic signs of appendicitis. As a surgeon who had routinely performed appendectomies, he could identify the symptoms easily and he knew that the only way to treat his ailment was to undergo an operation. He faced two problems, he was the only medically qualified person on the expedition and he could not be flown out because of several severe storms. As the days passed, his condition worsened and the available treatments (cooling, antibiotics) did nothing to rectify his deteriorating status.

His extenuating circumstances and unwillingness to die without trying to live left him with one choice, he was to perform the surgery on himself. Dr. Rogozov would simply smile and respond, "A job like any other, a life like any other."

Dr. Jerri Nielsen (1999), American physician, stationed at the Amundsen-Scott South Pole Station discovered that she had breast lump looking like a cancer. Trapped at the isolated base during the Antarctic winter, she performed a biopsy on herself using limited medical supplies and with the remote guidance of doctors in the United States. She then adminis-



Werner Forssmann.

trated her own chemotherapy. While not a full surgical operation, it was a remarkable act of self-diagnosis and self-treatment under extreme conditions. It remains another great chapter in 'Self-Surgery.'

Dr. Evan O'Neill Kane (1921 and 1932), An American surgeon famously performed an appendectomy on himself in 1921 to prove the efficacy of local anesthesia. He repeated a similar feat in 1932, at the age of 70, by repairing his own inguinal hernia. These acts were not born of necessity but rather a desire to demonstrate medical advancements and to understand the patient's experience.

These extraordinary cases underscore the unique dedication and resilience that can be found within the medical profession, pushing the boundaries of what is considered possible when faced with no other alternative. However, it's crucial to reiterate that such self-surgery is an extreme measure, almost always fraught with higher risks than if performed by another skilled professional.

Werner Theodor Otto Forssmann was the father of cardiac catheterisation. In 1922, he attended the University of Berlin to study medicine. During his training, one of his professors, Dr. Kopsch, suggested the idea of reaching the heart 'atraumatically via the vasculature.' He pursued this idea, and during his time in Berlin, he developed a technique for catheterising the heart. He was interested in finding a way to decide definitively whether a mitral valve defect should be operated on or not. He believed there was a way to find a safe pathway to the heart without giving general anaesthesia or surgically entering the chest. After discovering an article in which the inside of a horse's ventricle (heart) was reached via the internal jugular vein in the neck, he decided that using a ureteric catheter (a thin pipe which is used to enter the urinary passage through an endoscope) via the cubital (elbow) vein would be the best approach.

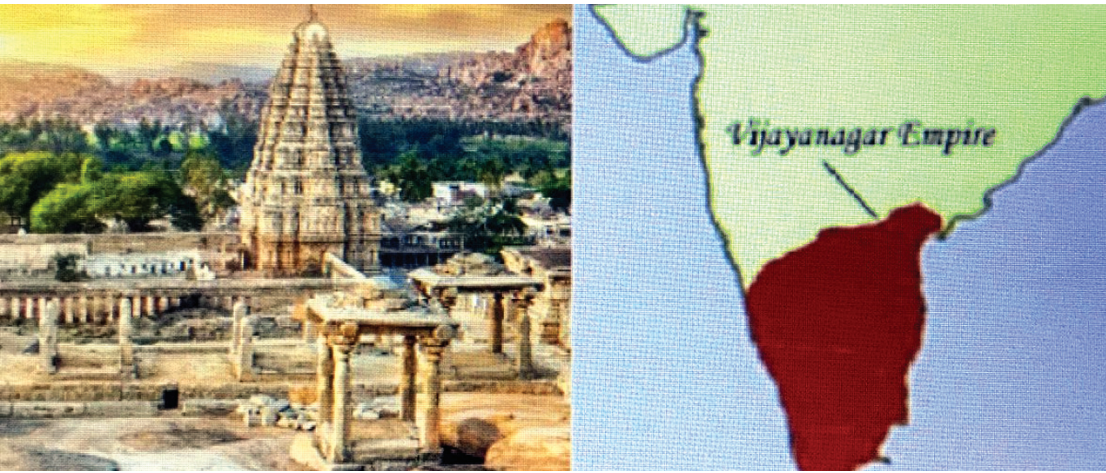


Physician Jerri Nielsen at the ceremonial South Pole marker.

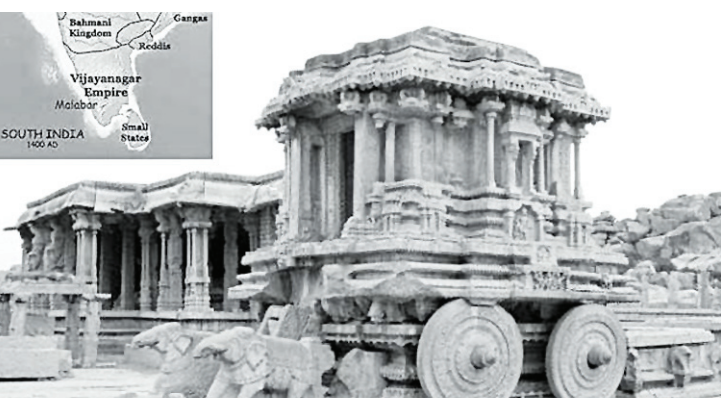
#CULTURE

The Diamonds Of Vijayanagara

A Glimpse into a Forgotten Gem Trade Empire!



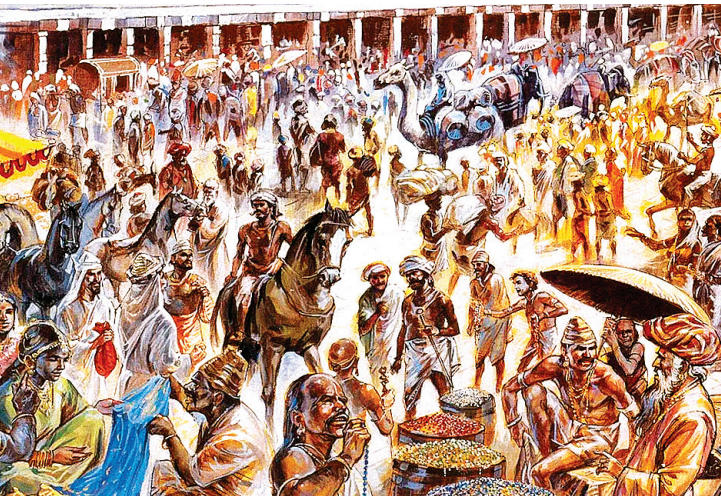
In the heart of southern India, the grand city of Vijayanagara once stood as a beacon of wealth, culture, and power. Among the many marvels of this medieval empire was its legendary diamond trade, which drew the attention of merchants, explorers, and chroniclers from across the world. One such visitor was the 15th-century Italian traveler Niccolò de' Conti, who left behind vivid accounts of the city's immense prosperity, highlighting, in particular, its dazzling wealth in diamonds.



Italian traveler Niccolò de' Conti.

According to Conti, the kingdom had access to incredibly rich diamond mines, and the gems were not only plentiful but of extraordinary quality. While he didn't specify the exact locations, it is widely believed he was referring to the famed mines of the Krishna River Valley, including Kollur, and nearby regions in present-day Andhra Pradesh. These mines were among the only known diamond sources in the world at the time, long before diamonds

were discovered in Africa or Brazil. The diamonds of Vijayanagara were traded extensively across India, the Middle East, and as far as Europe and Southeast Asia. Merchants from Persia, Arabia, and even China are recorded to have visited the empire's bazaars to obtain these precious stones. Diamonds, in the time, long before diamonds



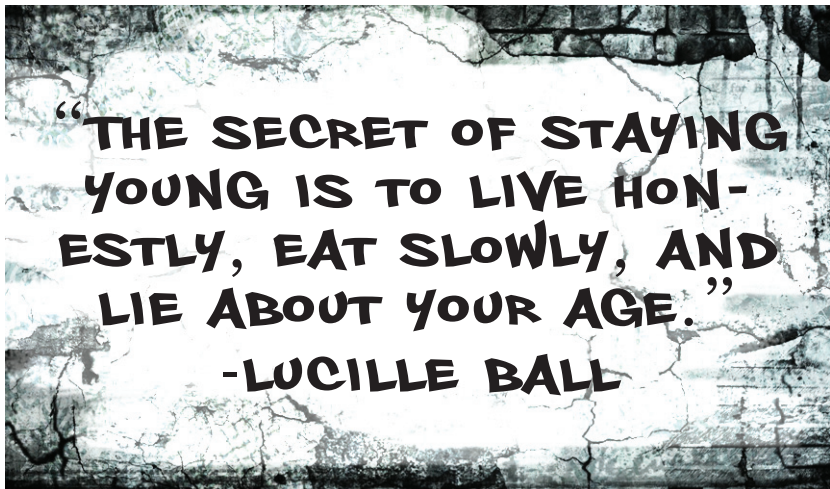
more than just luxury items. They were used in religious ceremonies, temple ornamentation, royal gifts, and diplomatic exchanges. Inscriptions and temple carvings from the time often depict diamond-studded crowns, jewelry, and deities adorned with gem-encrusted ornaments.

Conti's observations align with those of other foreign travelers like Domingo Paes and Fernão Nunes, who visited Vijayanagara in the 16th century. They too described the vibrant markets, the display of unimaginable wealth, and the presence of diamond dealers from across the globe. The city's immense riches were a direct result of its control over key trade routes, its strategic alliances, and its dominance of southern India's mineral resources.

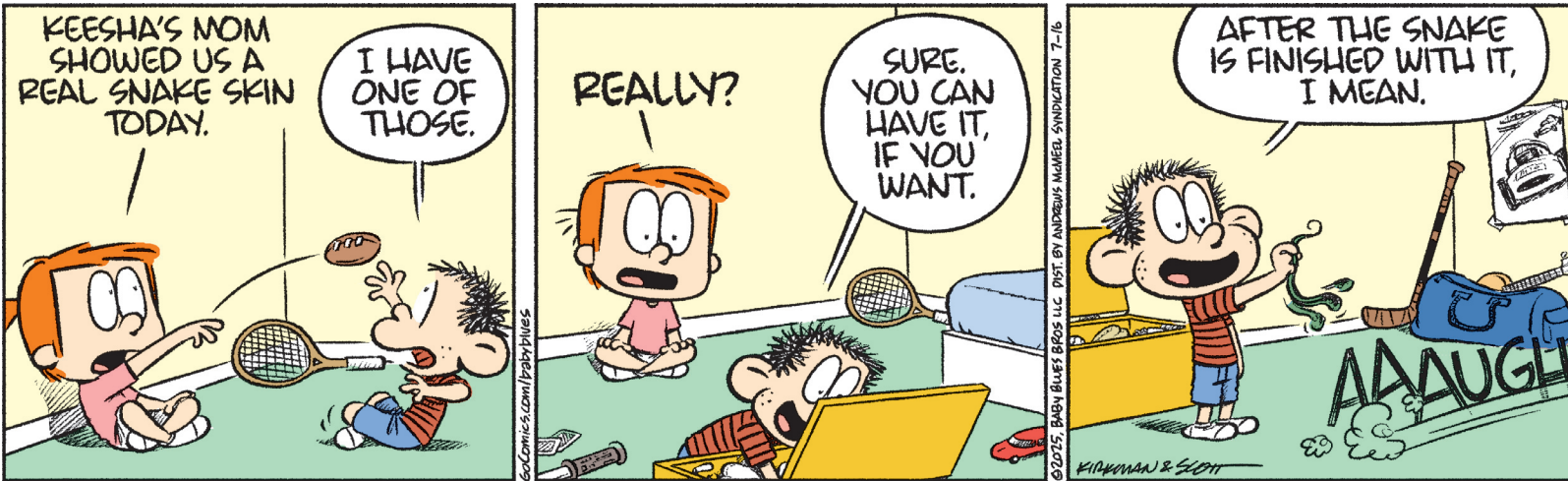
Sadly, the Vijayanagara Empire met a tragic end in 1565 at the Battle of Talikota, when it was sacked and left in ruins by a coalition of Deccan sultanates. The diamond trade gradually declined, and many of the mines were eventually exhausted or fell out of use. However, the legacy of this once-great empire, and the sparkling gems that once flowed through its hands, lives on in historical accounts like those of Niccolò de' Conti.

Today, his writings offer more than a romantic tale of distant riches; they serve as a testament to India's long and complex history of global trade, craftsmanship, and cultural exchange. The diamonds of Vijayanagara were not just stones, they were symbols of an empire's brilliance, ambition, and enduring legacy.

THE WALL



BABY BLUES



ZITS

