The Mosquito and the Ear

BLOWIN' IN THE WIND

SHAMSAD MORTUZA

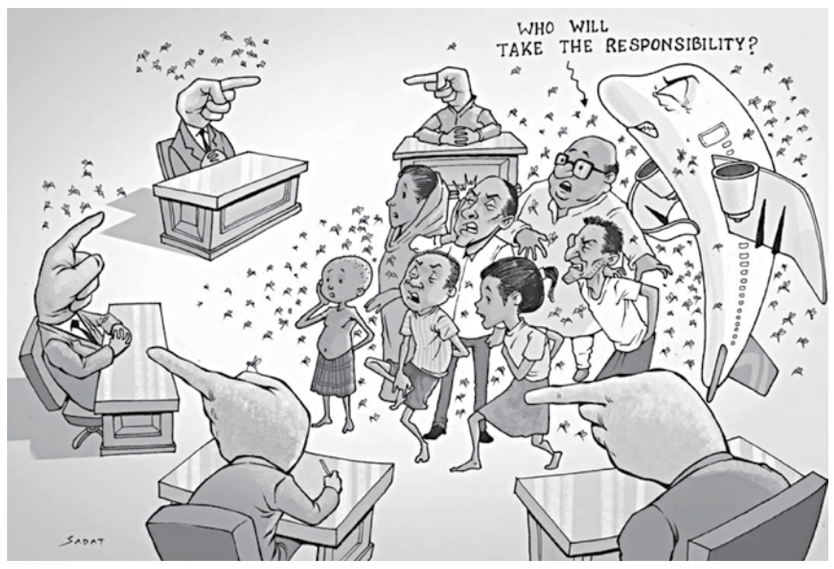
THERE used to be a TV advert in which a husband was rebuked by his judgmental wife for not being able to kill even a mosquito that was sitting on her cheek. It was the silliest of jobs that the husband had failed to perform, and the taunt confirms the fact that while male mosquitoes are useless, only female mosquitoes bite. Jokes apart, the ad would probably hurt the male egos of our city fathers, and their predecessors before them. They know all too well that killing mosquitoes is no mean task. As I type lying under my mosquito net, staring at the scores of tiniest blood-seeking creatures crawling above me, I am visited by the frustrated outburst of a former mayor who, at the outbreak of chikungunya, notoriously said that he couldn't go inside people's mosquito nets to kill them. I share similar helplessness against this primitive enemy even in an age when men are sending drones to Mars. My frustration is deepened by the knowledge that we are yet to modernise our mosquito-fighting strategies.

Humans have been waging a war against mosquitoes for centuries. The war reached military proportions since the epidemiologist Sir Ronald Ross, affiliated with the British military, proved the role of Anopheles (translated as "useless") in malaria and US army major Walter Reed made a similar discovery about Aedes (translated as "unpleasant") and yellow fever.

When we were growing up, we used to see airplanes being used for aerial spraying to kill mosquitoes. Back then, the low-flying aircraft, specially converted to spray insecticides, was a source of immense joy and excitement. It created an atmosphere of total war against the tiniest of insects. The aerial attack would be followed up by foot soldiers in khaki dresses carrying heavy brass cylinders on their backs, undertaking targeted attacks in drains and bushes. They would even come inside people's homes to spray in areas where mosquitoes were hiding. Little did we care that such chemicals were harming other animals and the toxins were doing permanent damage to the environment. Yet it felt good to see that something spectacular was being done to address the mosquito nuisance. Then there were attempts to introduce larva-gobbling guppies in the drains, which turned out to be a project of pouring money into the drains. Then foggers were introduced to the arsenal of mosquito-fighting apparatuses that previously included only hand-held sprayers.

According to an old published report, most of the equipment of the city corporations are non-functional, if not out of order. Then there is this issue of not having enough people to operate the equipment. The efficacy and price of imported medicine have been a source of perennial complaints and controversies. Millions of takas are being spent to no avail. Explaining the inadequacy of their anti-mosquito drive, one city corporation staffer said that the loud-noise-making foggers could alert mosquitoes from a distance. While these machines could be good for adulticiding (controlling mosquitoes in their adult stage), they were not that effective against larva. The moment streets are strewn with fogs of insecticide, the insects seek shelter in the plants of our terraces or rooftop gardens. I guess regular warfare has turned into guerrilla warfare.

This is particularly true as mosquitoes are reputed for their uncanny ability to mutate and become resistant to pathogens (chemicals). Recently, cutting-edge molecular biology is using the nuclear technique to sterilise male mosquitoes or to rewrite their DNAs. In China, they have already applied such techniques with considerable success. Humans are now faced with a question: should they purposefully cause an entire species to go extinct? Many birds, beasts, flowers and fruits have disappeared due to our negligence, overconsumption, or invasion. Do mosquitoes deserve our ethical concern?



The only good mosquito is a dead mosquito? ILLUSTRATION: **STAR/SADAT**

Humans and mosquitos have co-evolved. And we share the equal desire to prey on the other. Each year, more than a million people die of mosquito-related diseases. Our enemies are very sophisticated compared to the claps that we are equipped with. They have the sensory organs to decide who among us has the right nutrients for them; they have the drilling apparatus to penetrate our skin and find the blood vessels. And they have the resilience to constantly mutate and survive. But do they have the right to live?

When the European invaders annihilated almost the entire indigenous population of the Americas, they tried to colonise the space by suggesting that only the civilised ones had the right to live. They used to bill a poster to offer bounty for dead local people, saying, "the only good Indian is a dead Indian". By Indians, they, of course, referred to the misconception that Columbus landed in India where the inhabitants were "Red". In an inter-species contact zone, are we now to say, the only good mosquito is a dead mosquito?

I don't think anyone in our part of the world will disapprove. With dengue, zika, chikungunya and malaria still looming large, there is hardly anyone who would object to the total annihilation of mosquitoes. They are not only a nuisance but also a menace. They have the mythical reputation of subduing the mightiest of earthly lords. Nimrod, the Mesopotamian king mentioned in the Bible, was killed by a mosquito that entered his brain. His entire army was also killed by the swarming insects sent by God to avenge Nimrod's boastful attempt to equal the maker.

Now that humans have finally acquired the technology to eradicate the mosquito species, the Western world is pondering on ethical and environmental issues. They want to make sure that eradicating all 3,500 species of mosquitoes from the world does not harm the ecosystem. The research remains focused on public health as one of its primary sponsors is the Bill & Melinda Gates Foundation that wants Africa to be free of mosquito-driven diseases.

Tales of the resilience of African mosquitoes are found in African folklore. In *Things Fall Apart*, the Nigerian novelist Chinua Achebe recounts one such story in which a mosquito asks a human ear to marry him. The ear bursts into laughter: "How much longer do you think you will live?" the ear asks. "You are already a skeleton." Ever since, whenever the mosquito comes near the ear, it never misses the opportunity to remind the ear that it is alive.

This is the reason mosquitoes always seem to attack the ears. This is the same reason I am singing this old song to have the ear of someone powerful who will end the menace.

Shamsad Mortuza is Pro-Vice-Chancellor of the University of Liberal Arts Bangladesh (ULAB), and a professor of English at Dhaka University (on leave).

How far can humanity go into the outer space?

NASA's Perseverance rover landing on Mars ignites hope

ARAF MOMEN AKA

NASA has released a significant amount of footage, video feeds with audio, and reports on the operation of its Perseverance rover since its landing on Mars on February 18, 2021. From the slow and tense descent of Perseverance via its "sky crane" capsule towards its landing zone on Martian soil, to the panoramic view of the Martian landscape, the visuals coming out of this momentous event have been magnificent and literally "unworldly" to behold.

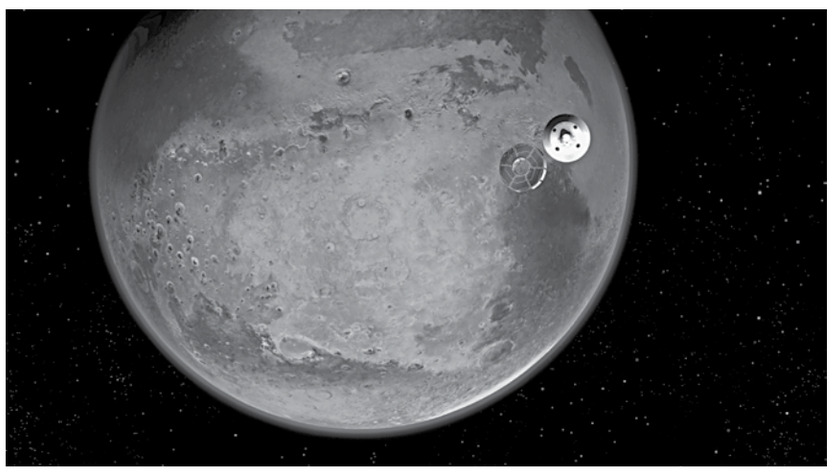
The landing video clip alone felt like something out of a sci-fi movie. This time, in addition to the photographs and video clips, NASA has introduced us to the sounds of Mars also. Listening to the recorded sounds of Martian winds blowing into Perseverance's microphone, as if you could hear the sounds of time passing in a different world, was a surreal experience.

Sadly, we are several decades away from exploring all the bodies—planets, planetary moons, asteroids, dwarf planets like Pluto, etc.—within our solar system with such depth as we have explored Mars. In fact, to explore all the heavenly bodies outside our solar system and galaxy might take us centuries in the future.

However, the in-depth exploration of Mars is something remarkable in this day and age. The fact that humanity can now operate complex machinery capable of sampling and investigating extra-terrestrial topsoil contents from a distance of more than 200 million kilometres away from our planet is nothing less than phenomenal.

Mars has been in the spotlight of humanity's first strides in interplanetary space exploration for over half a century, since the conditions on Mars are not as harsh as they are on other planets like Venus, where surface temperatures average at around 470 degrees Celsius, and also because the distance is financially and chronologically more viable than other planets in our solar system.

It should be kept in mind that if we can successfully manage to send and sustain human inhabitants on Mars, as well as utilise any of the natural resources to be found on the Red Planet, we can concentrate on inhabiting and/or utilising more heavenly bodies in outer space—within and outside our solar system.



This illustration shows NASA's Perseverance rover casting off its spacecraft's cruise stage, minutes before entering the Martian atmosphere, on February 18, 2021. SOURCE: **AFP**

Mars has had its first encounter with humanity through rovers back in 1971, under the Soviet Space Programme of the former USSR, according to an article by The Planetary Society in 1990. The Mars 2 rover was the first to land, and the Mars 3 rover followed suit a month later, in December 1971. But while the first crash-landed on Mars and was destroyed on impact, the second had a soft landing but "ceased transmissions 20 seconds after landing".

NASA, on the other hand, has had more success in landing and operating landers and rovers on Mars than any other space programmes of other nations or coalitions. According to old records, NASA managed to land its first spacecraft on the surface of Mars, named Viking 1 Lander, in the year 1976. Twenty-one years later, in 1997, it landed its first rover, Sojourner, successfully. Since then, NASA has managed to successfully land and operate four more rovers, namely Spirit and Opportunity (January 2004), Curiosity (August 2012) and Perseverance (February 2021).

There have been a number of other spacecraft landed by NASA like the 2001 Mars Odyssey, Mars Science Laboratory, etc. along with orbiters like the Mars Reconnaissance Orbiter.

What is interesting, however, is that we may also be looking at a rejuvenation of the space race, this time the contenders being the USA's NASA and China's China National Space Administration (CNSA).

Ever since the collapse of the USSR in 1991, and perhaps even before that, NASA really did not have a fitting rival when it came to space exploration, as its strongest competitor, the Soviet Space Programme, had been significantly weakened. Gone are the days when Space Wars once heavily emphasised on whether an astronaut or a cosmonaut would set foot on the moon. The field for space race had long crossed the confines of Earth's orbit after the first moon landing in 1969.

With NASA landing its fifth Mars rover, CNSA is on its way to landing its first Mars rover, the Tianwen-1, in May 2021, according to the New Scientist magazine. The CNSA rover was launched in July 2020, and it has already entered the Martian orbit in February 2021. Tianwen-1is expected to land on Utopia Planitia, where NASA's Viking 2 lander spacecraft had landed in September 1976. This rover is China's first attempted interplanetary mission without international partners.

So we may be on the verge of witnessing another era of space race, a fierce and beneficiary competition between two superpowers. This time, there may be more than two strong contenders ready to be involved in this race, with the Indian Space Research Organisation and the still-strong Roscosmos of present-day Russia.

A space race should be a thing that we, the general people, should be looking forward to. This is because the race had previously introduced us to astounding innovations such as artificial limbs, scratch-resistance lenses, insulin pumps, firefighting equipment, and water filtration for daily use by ordinary people—innovations that we now take for granted. And a reignited space race in the Information Age can bring us so many new sights, knowledge, and technology, the importance of which we may not even fathom now.

So, could there have been even greater leaps in scientific advancement if CNSA and NASA worked together? Maybe. Yet, perhaps it is the sense of competitiveness in human nature that brings out some of the best innovations we have seen and perceived throughout history, and that trait can easily be carried over to the concept of space race. Though, we are yet to see whether Tianwen-1 will successfully land on Mars and be able to maintain communications with the CNSA command centre.

Nowadays, technology has advanced to such an extent that we have managed to get a detailed photographed image of the dwarf planet Pluto (5.2316 billion kilometres away from Earth), thanks to NASA's flyby spacecraft New Horizons. NASA's Voyager 1 and Voyager 2 are now more than 22 billion and 18 billion kilometres away, respectively, from Earth, drifting further away at speeds of almost 17 kilometres per second (kps) and 15 kps, respectively, as tracked by NASA's Voyager Mission Status. And so many more interplanetary space exploration attempts have been made that it would be difficult for one person to keep track of all of them.

Who knows what we have in store for us in the future. Projects like the Artemis programme under NASA, for sending humans to Mars, and the development of the James Webb Space Telescope—under NASA, European Space Agency (ESA) and Canadian Space Agency (CSA)—for observing heavenly bodies at a much further distance, are already underway. Who knows how far humanity can go and achieve in the vastness of the outer space. Only time will tell. And Mars holds a crucial place in determining the fate of humanity's attempt in space exploration.

Araf Momen Aka is an intern at the Editorial department of *The Daily Star*.

QUOTABLE *Quote*

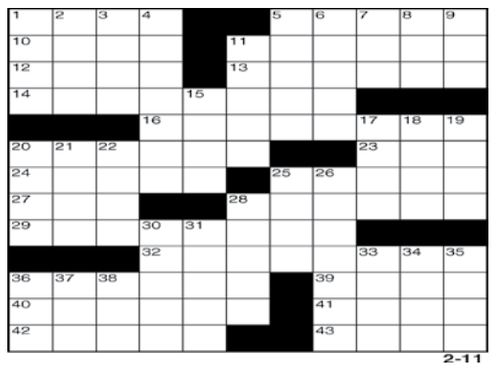
WALT DISNEY
(1901-1966)
American entrepreneur

The way to get started is to quit talking and begin doing.

CROSSWORD BY THOMAS JOSEPH

ACROSS
1 Olympian ruler
5 Window coating
10 Different
11 Go by
12 Grace finish
13 Tried the soup
14 Term of respect abroad
16 Enterprise, for one
20 Highway strip
23 Afternoon hour
24 News item
25 Brief
27 Writer Stanislaw
28 Trombone parts
29 Deliver directly to customers
32 Deprivation
36 Hire
39 Ocean motion
40 Playground sight
41 Times for preparation
42 Foot parts
43 Take it easy

DOWN
1 Fervor
2 Sailors' saint
3 Manual reader
4 Remits
5 Panache
6 Some files
7 Make a choice
8 Toronto-to-D.C. dir.
9 Slugger Williams
11 Hawke of film
15 RBI or ERA
17 Parka part
18 Memo heading
19 Favorites
20 Pinochle score
21 At any time
22 Floor model
25 Glided
26 Cool cat
28 Smallest mammal
30 Full moon, for one
31 Long stories
33 Workers' home
34 March time
35 Nuisance
36 Snaky shape
37 "The Matrix" hero
38 Salon stuff



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THURSDAY'S **ANSWERS**

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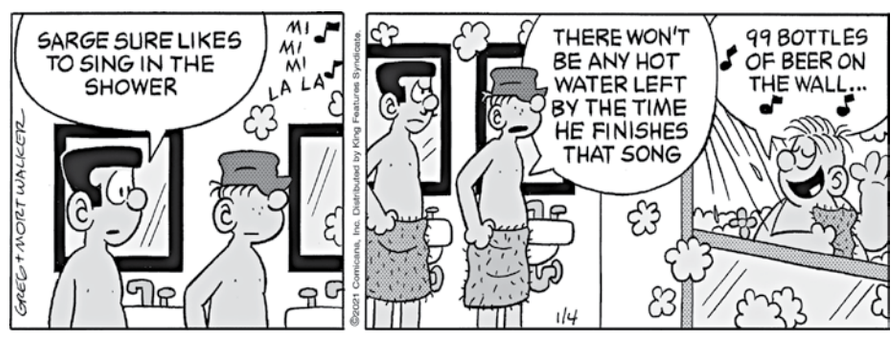
BEETLE BAILEY BY MORT WALKER



BABY BLUES BY KIRKMAN & SCOTT