

Historic March

March 8, 1971

Tofael Ahmed Recalls Those Tumultuous Days

I Can Well Read the People's Minds, Mujib Said

By Nurul Kabir

THE new flag of Bangladesh that was unfurled on March 2, 1971 by ASM Abdul Rab, the then Vice President of Dhaka University Central Students Union (DUCSU), at the university campus was actually designed a year ago, recalled Awami League (AL) leader Tofael Ahmed, emotionally.

While recollecting the golden memories of the incidents taking place in the historic month of March, 1971 Tofael told the Daily Star, that the flag was designed by Abdul Mannan, an Art College student.

The flag was used at a rally held in observance of the first death anniversary of Sergeant Zahurul Huq on February 15, 1970.

"And I was carrying the flag that day," Tofael added.

The flag designed then was a golden map of Bangladesh set on a red circle against a

bottle-green background.

Tofael Ahmed served as the Vice President of DUCSU from 1967 to 1969 and was President of the Chhatra League from March 1969 to March 1970.

During his second term in DUCSU, Tofael discharged the responsibility of convener of the Central Students Action Committee that virtually led the mass upsurge of 1969, resulting in the ouster of dictator Ayub Khan from power and creation of prelude to the Liberation War two years later.

In the general elections of Dec 7, 1970, Tofael was elected to the Pakistan National Assembly (PNA).

Requested to recall his state of mind as well as that of Sheikh Mujibur Rahman when General Yahya Khan announced the postponement of the opening session of the PNA on March 1, 1970, Tofael said, "Well, the whole nation got

stunned for a moment at the announcement! It however became clear to us as well as to the freedom-loving entire people of the country that there was no alternative but to decide the next course of action with a view to liberate the country from the grip of the Pakistani ruling circle and get rid of 24 years of humiliation.

"People were pouring in their thousands into the streets and all roads led to the Purbani Hotel where Bangabandhu was presiding over an AL parliamentary party meeting.

"Bangabandhu, responding to temperament of the people gathered around the hotel called for hartal on March 2 and 3, in protest of Yahya's announcement and assured the gathering that the conspiracy hatched by the Yahya regime

would not go unchallenged," Tofael recalled.

The announcement of historic March 7 rally also came from Mujib that afternoon, he added.

Meanwhile the Independent Bengal Students Action Committee (IBSAC) came into being and the then DUCSU VP unfurled the new flag of Bangladesh in a mammoth student gathering on the Dhaka University campus on March 2.

The student leaders called people to burn down the Pakistani flag and hoist the new Bangladesh one on each and every roof top.

On March 3, IBSAC organised the historic rally at Paltan Maidan, where Shajahan Siraj, with the new flag of Bangladesh flanking overhead, pronounced, "Independent and sovereign Bangladesh has been declared."

An IBSAC declaration was also read out by Shajahan Siraj which urged the people, along with other things, to form liberation army to combat the regular army of Pakistan with a view to liberating Bangladesh.

"Bangabandhu was present in the meeting and from the same dias he announced non-violent, non-cooperation movement against the Pakistani regime which set virtually the direction of the uncompromising movement for the next 22 days," Tofael emphatically said.

Replying to a question, Tofael informed the Daily Star that IBSAC leaders especially ASM Rab, Shajahan Siraj, Nur-e-Alam Siddiqi and Abdul Kuddus Makhani used to work under the direct control. Of a four-member group comprising Sheikh Fazlul Huq Moni, Sirajul Alam Khan, Abdur Razzak and Tofael himself while this group worked at the directives of Mujib during that time.

When asked why did Mujib attach so much importance to negotiations with Yahya Khan during the tough days of March, Tofael said, "although Bangabandhu was convinced

that the Pakistanis would not transfer power to the Bengali people, he continued discussion only to show the international community that the Bengalis left no stone unturned to achieve their rights through peaceful means."

Side by side with dialogue with Yahya Khan, Mujib used to instruct us to prepare for the alternative means of realising the objectives of our people," Tofael added.

"To be more particular about Mujib's urge for liberating the country from the grip of Pakistanis, I can cite an example in which Mujib, back in October 1969, met an important agency personnel of a neighbouring country in London and tried to reach an understanding that a group of 25 Bengali youths would go to that country every month to receive military training so that they can when the necessity arises, at least begin fight-

Dhaka Radio broke its silence at 8.30 am on March 8, 1971 by broadcasting Bangabandhu Sheikh Mujibur Rahman's historic speech delivered the previous day to a massive gathering at the Race Course Ground.

The radio was supposed to have broadcast it live, but could not do so as the martial law authorities clamped a ban on it. In protest, all Bengali members of staff walked off, and stayed off until they were able to carry out their promise to the people by transmitting the speech."

The movement in the street in support of Mujib's call for non-violent, civil disobedience received a major boost with the arrival in Dhaka of Maulana Abdul Hamid Khan Bhasani from Santosh in Tangail.

The fiery leader, whose political stature and popularity stood way above that enjoyed by the National Awami Party he led, was scheduled to give a speech at the Paltan Maidan the next day.

Tension in the city was already beginning to mount with the arrival in Dhaka the previous evening of Lt Gen Tikka Khan, better known as the Butcher of Baluchistan for his brutal suppression of the Baluchi people's struggle for freedom in 1965.

Tikka Khan replaced Lt Gen Shahabzadeh Yaqub Khan as governor and Lt Gen Amir Abdullah Khan Niazi was ap-

pointed deputy martial law administrator of East Pakistan.

Apparently, Yaqub Khan was removed for his "softness" in handling the crisis in East Pakistan. That "softness" included the killing of hundreds of unarmed Bangladeshis by the Pakistan army in the streets of Dhaka, Chittagong, Rangpur, Tongi, Rajshahi, Jessore and many other places.

The military authorities, however, tried to shift all the blame for the killings on to what they called "rioters."

In a statement issued to the press late in the night of March 7, the martial law administrators said that 172 people had been killed and 358 injured in "riots", including 78 deaths in Chittagong alone.

The press note did not mention anything about the hundreds of people fighting for their lives at various hospitals including the Dhaka Medical College Hospital after being shot or bayoneted by troops and police. Despite the mounting brutality, Yaqub Khan was not considered tough enough, and the Butcher of Baluchistan was sent to carry out his speciality job to "save Pakistan."

Following Mujib's outline of the civil disobedience movement at the Race Course rally, and declaration that "the struggle this time is for our freedom, the struggle this time is for our independence," Activists of political parties

across the broad spectrum, save for the few fanatically pro-Pakistan ones at the extreme right-wing who were routed at ballot box three months ago, began organising their forces for the challenge ahead.

Student wings of parties organised volunteer brigades, not only to keep up the momentum of the movement, but also to maintain peace and discipline in the city; women students took to the streets and would soon start getting paramilitary training, albeit with dummy weapons; and streets remained vibrant with the sound of a million footsteps and thunderous slogans.

Political parties and social organisations which had not seen eye-to-eye with the Awami League only a month ago, instantly responded to Bangabandhu's call and rallied behind him.

Mujib was no longer simply the president of the biggest political party in the country, but the true leader of the nation, the nucleus of the movement. And the movement, after a week of agitation, had become a national one.

When we enquired about his decision about moving to a safer place, Bangabandhu said, 'A leader cannot flee for his personal safety'.

ing the Pakistani forces on our people's behalf. The negotiation with the neighbouring country however virtually failed but the incident showed Mujib's eagerness for the country's freedom, Tofael informed the Star.

Mujib was tactical enough to deal with things to achieve his objectives, Tofael said, adding, Bangabandhu one day — on March 25 — went to have dialogue with Yahya Khan alone without any aide which he usually did earlier.

"That day he tried to pursue the Pakistani authority that the majority parties should at least be allowed to form the provincial government in all the five provinces of Pakistan," Tofael continued.

"Mujib tried to pursue this idea keeping in his mind that once the Bengalis can form their own government in their own country, it would be easier than to compel the Pakistani ruling circle to handover central power," Tofael argued.

Mujib, before pursuing this idea, however did not forget to hoist the new flag of Bangladesh on the car that carried him to the venue of the bilateral negotiation on March 25, Tofael remembered.

It can be mentioned that the new flag of Bangladesh was also hoisted at his Dhanmondi residence on the same day.

Recalling an interesting incident taking place at Mujib's residence on March 7, few hours before his historic address at Ramna Race Course Maidan, Tofael said, "Sirajul Alam Khan and I went to visit him in the morning and, when Sirajul Alam insisted that Bangabandhu should declare independence in clear terms that afternoon, Mujib said,

"Being the people's leader, I can well read their minds. I know how to lead them and to what direction."

Bangabandhu delivered his historic speech and virtually declared the independence of the country saying, "the struggle this time is for our freedom, the struggle this time is for independence."

According to Tofael Ahmed, he and Sheikh Fazlul Huq Moni were the last two persons who met Mujib on the dreadful night of March 25 at 11 pm.

"Bangabandhu handed over to me an amount of Taka 5,000 and asked us to move to a safer shelter," Tofael told the Star in a choked voice.

When we enquired about his decision about moving to a safer place Bangabandhu said, "leader can not flee for his personal safety," Tofael recalled.

Heat in the street: People battle police near the Secretariat

Feature Science and Technology

The Universe Within the Universe

by Shirreen Bari

ACCORDING to the big bang theory, the first millionth of a second after the birth of universe, matter and antimatter existed in equal amounts. And when the universe expanded and cooled, most of the particles found their corresponding antiparticles and the pair annihilated each other. So the universe was elegantly simple but virtually empty of matter and of creatures made up of that matter.

And at the very beginning the distinction between the four fundamental forces — nuclear strong force, nuclear weak force, gravitational force and electromagnetic force — did not exist and all these forces were unified and had one single strength. So the forces were all symmetrical and equal at the creation.

The world symmetry is derived from the Greek Symmetrus, meaning regular, well proportioned or harmonious. When the universe cooled and the law of symmetry began to break, the four fundamental forces also separated from each other. First, gravity was distinguished from other forces, and then the strong, weak and electromagnetic forces became apparent as they froze out of the cooling universe manifesting breaking of the symmetry.

After the universe has cooled down and the symmetry broke down, in excess of about one billion protons and one billion electrons survived to form, in the fullness of time, galaxies, stars, planets and ourselves. Why then nature is very symmetrical as we see it and why is it asymmetrical when we observe it in a microscope way? Again why this crack or flaw in nature lies at the centre of the riddle of our existence? Still partial physicists never get a very accurate answer to it. And it is still an unsolved and mysterious problem.

Until 1957, all the laws of nature were believed to be symmetrical. The laws of nature should be such that the happening in the mirror image should also be perfectly consistent with them.

Many ordinary objects around us possess what it called "handedness." They are either right or left handed. Gloves and shoes are an exam-

ple, even chemical molecules also can exhibit handedness, like the right-handed double helix of DNA that twists around like a spiral staircase to the right, this does not mean that life also defines a direction but life just has to use one or the other (left or right) and on this planet the right-handed choice was made.

A looking glass in an object in which we see our images.

And at the very beginning the distinction between the four fundamental forces — nuclear strong force, nuclear weak force, gravitational force and electromagnetic force — did not exist and all these forces were unified and had one single strength. So the forces were all symmetrical and equal at the creation.

We know that our right hand and left hand are opposite to each other. One can be considered the mirror image of the other. Again in mirror, the right hand looks like a left hand. So if all human hands were symmetrical in every respect, the mirror image would be different from the direct image and there would be no such distinction as 'right' and 'left'.

And for that reason now some scientists think that Alice ("Alice in Wonderland," a beautiful story written by Charles Dodgson, where it is described how Alice had been lost in another world when she was in a dream) can provide a way of understanding symmetry laws in nature.

Now Alice can tell whether she is in the real world or in the looking glass world. She can be certain of her whereabouts only if she finds some fundamental process or structure that defines a screw direction. A right-hand screw at home will be a left-hand screw through the looking glass. Until 1956 scientists, specially particle physicists, thought that Alice must remain lost between the real world and the looking glass world. Because at that time it was generally believed that none of the fundamental forces as gravity,

electromagnetism, the strong interaction (which are responsible for nuclear forces) and the weak interaction (which are responsible for certain kinds of nuclear decay) defines a screw sense. That is why the P mirror (looking glass and P stands for parity) was symmetrical, so that one could not distinguish between the results of a reflection among elementary particles and the result of the

reflection is not perfect. Again matter about which we think that it is symmetrical. But the change of matter into antimatter is not symmetrical as C mirror changes particles to antiparticles and antiparticles to particles but preserves the relative orientations of the objects it reflect. (C stands for charge conjugation) Alice can now find out whether she has passed through the C mirror by determining either the direction of emission of the electrons emitted by her aligned cobalt nuclei or, alternatively, the direction of emission of the positrons (anti electron) emitted by her aligned anticobalt nuclei. Once again electrons traveling counterclockwise in a wire loop generate a magnetic field that points downwards and the cobalt nuclei align downwards and the electrons they emit move upwards. In the anti-world seen through the C mirror, positrons traveling in the wire loop also move counterclockwise, but (since the C mirror reverses charge) because they have a charge opposite to that of electrons, the magnetic field points upwards. The anticobalt nuclei have magnetic properties opposite to those of ordinary cobalt nuclei, and so their spins align downwards. Finally, the positrons emitted by the anticobalt nuclei travel in the direction of the nuclear spins, which in this case is downwards.

The fact that the emitted positrons travel in the direction opposite to that of the emitted electrons tells Alice she must have passed through the C mirror. As this experiment has shown that the C mirror changes the charge of positive and negative mesons and changes the neutral K meson into its antiparticle, the K negative meson. So weak interaction is responsible for breaking the symmetry of nature. Some scientists think that as symmetry breaks down due to weak interactions, perhaps it will break down elsewhere. The universe as a whole may be right handed or left handed or may be there are two universes — one left and the other right handed, and one composed of matter, the other with that antimatter. The universe within the universe.

In 1957 two particle physicists Lee and Yangs showed that the P mirror could be asymmetrical with respect to the weak interaction. Further the experimental scientists worked on this theory and suggested that the weak interactions do define a screw direction, and nature discriminate between left and right-handedness.

Scientists have shown a test for reflection symmetry in a looking glass, which is more formally called a P mirror. Particle physicists have taken cobalt 60, an isotope of cobalt that decays by emitting electrons through the weak interaction, in a magnetic field generated by electron flowing counterclockwise around a circular wire loop. Here Alice can see that the field points downward and aligns with the spins, (rotation of a subatomic particles) of the cobalt nuclei downward. The emitted electrons travelled upwards.

reflection is not perfect.

Again matter about which we think that it is symmetrical. But the change of matter into antimatter is not symmetrical as C mirror changes particles to antiparticles and antiparticles to particles but preserves the relative orientations of the objects it reflect. (C stands for charge conjugation) Alice can now find out whether she has passed through the C mirror by determining either the direction of emission of the electrons emitted by her aligned cobalt nuclei or, alternatively, the direction of emission of the positrons (anti electron) emitted by her aligned anticobalt nuclei. Once again electrons traveling counterclockwise in a wire loop generate a magnetic field that points downwards and the cobalt nuclei align downwards and the electrons they emit move upwards. In the anti-world seen through the C mirror, positrons traveling in the wire loop also move counterclockwise, but (since the C mirror reverses charge) because they have a charge opposite to that of electrons, the magnetic field points upwards. The anticobalt nuclei have magnetic properties opposite to those of ordinary cobalt nuclei, and so their spins align downwards. Finally, the positrons emitted by the anticobalt nuclei travel in the direction of the nuclear spins, which in this case is downwards.

The fact that the emitted positrons travel in the direction opposite to that of the emitted electrons tells Alice she must have passed through the C mirror. As this experiment has shown that the C mirror changes the charge of positive and negative mesons and changes the neutral K meson into its antiparticle, the K negative meson. So weak interaction is responsible for breaking the symmetry of nature. Some scientists think that as symmetry breaks down due to weak interactions, perhaps it will break down elsewhere. The universe as a whole may be right handed or left handed or may be there are two universes — one left and the other right handed, and one composed of matter, the other with that antimatter. The universe within the universe.

Major Role for Australia in Global Research Project

Australian involvement in a little-known but dramatic global research project continues to shed new light on southern hemisphere weather patterns and knowledge of the earth's evolution.

Since 1985, 19 nations have cooperated in the Ocean Drilling Programme (ODP), which spends \$50 million a year to study the structure and history of the ocean floor by drilling the deepest holes ever made into the deep sea bed.

The Australian Research Council has announced continuing funding for Australian

sediment.

Australia's coordinator on the premier international earth science research programme, Dr Tony Crawford, who runs Australia's ODP secretariat from the University of Tasmania, said the results from Australia's only two drilling legs to date show why marine geoscientists are so excited over the project. Both Australian legs, challenged conventional understanding of the earth's crust.

Unexpected Discovery

"First there was the wholly unexpected discovery that the

equator by a centimetre or so each year. Others will suggest that it is difficult to be dogmatic about rising or falling sea levels when you must first determine if the continents themselves are rising or falling.

At another level, there are resources implications because the creatures that build reefs are very often destined to turn into oil and such reefs are prime targets for oil explorers. The battle for "inner space" does not get the publicity of the other space race, which looks forward to space stations and a possible Mars voyage.

There was little media coverage when JOIDES Resolution recently completed man's deepest penetration into the deep sea floor, 2000 metres

The ODP also inevitably offers spin-offs for applied science. While JOIDES scientists do everything they can to avoid formations that might contain commercial oil, they do apply the latest oil-search technology, including a formation microscanner inserted in the drill hole to measure factors such as porosity, chemical composition and fracture density.

Apart from purely scientific discoveries, there also is the experience being gained in drilling in water more than 10 times deeper than oil explores.

"Australia now will be looking for a chance to explore further issues," Dr Crawford said. "A few examples: how fast does sea level rise and fall? Have there been previous Greenhouse periods? What controls apparent switching on and off of the important East Australian current? Can it be linked to El Nino phenomenon?"

To tackle such questions, the ODP scientists refine chemical techniques to analyse the core sediment. Take forams, tiny shelled animals found in all oceans for around 100 million years.

Shell remains can give us water temperatures to within two or three degrees: salinity levels; measurements of atmospheric carbon dioxide, and other factors. By graphing changes down the drill hole, you might be able to show sea temperatures over 50 million years from a single site.

In Australia, the analyses from the off-shore Queensland hole will let us measure climate in 10-year steps for the last one million years. I believe this is the only world site able to offer such detail."

(Australian Science and Technology Newsletter)



Australian scientists plan another phase of the Ocean Drilling Programme

participation in the project which is devoted to the exploration of "inner space."

Each of 22 Australian geoscientists from nine universities and the Bureau of Mineral Science has spent 60 days aboard drill ship and floating laboratory JOIDES (for Joint Oceanographic Institutions for Deep Earth Sampling) Resolution drilled a Triassic reef where no Triassic reef had been known before. This forces us to reassess our theories about how this area devel-

Great Barrier Reef is a mere 500,000 years old instead of the textbook estimate of between five million and 10 million years," Dr Crawford said.

Then, on the opposite side of the continent, not far from Australia's huge off-shore natural gas reserves on the Northwest Shelf, JOIDES Resolution drilled a Triassic reef where no Triassic reef had been known before. This forces us to reassess our theories about how this area devel-

below the ocean floor, six kilometres below the drilling vessel.

At one level, the ODP is pure science, which attracts some of the world's brightest geoscientists to improve understanding of the forces which shaped the planet.

These are people with a long-term perspective: researchers who think, for example, of Australia as a mobile land mass, moving towards the