

Saturday 

 April 20, 2024

## **PRESERVE HERITAGE**

ndia's cultural diversity is indeed one of its most distinctive features, enriched by the myriad religious groups that call the country home. Each community contributes its own unique customs and traditions, creating a tapestry of cultural richness that is unparalleled. While there are variations in customs and traditions across different regions and communities. certain aspects of Indian heritage remain consistent throughout the country. These traditions serve not only as a link to our past but also as guides for ethical living, instilling in us values that shape us into better individuals and foster societal harmony. Preserving this rich heritage is not just a matter of pride but also a responsibility, especially for the older generations. They play a crucial role in imparting an appreciation for Indian culture to the youth, starting from an early age. By nurturing a love for tradition and heritage in children, we ensure the continuity of our cultural legacy. Ultimately, preserving India's cultural heritage requires a collective effort, involving not only educators and parents but also society as a whole. By instilling a sense of reverence for tradition and heritage in the younger generation, we can ensure that India's cultural mosaic continues to thrive for generations to come.

### **Preserving Monuments** and Heritage Sites

### DR BANARSI LAL

very year18th of April is observed as the World Heritage E Day or International Day of Montuments and the globe to protect our cultural heritage. This day is cele-Day or International Day of Monuments and Sites across brated to create awareness on preservation of rich cultural heritage sites and monuments. The objective of celebrating this day is to make people aware on the conservation and importance of our rich cultural heritage and to attract them towards the heritage sites and monuments by giving information about them located in different locations. The theme of 2024 World Heritage Day is "Discover and Experience Diversity". Our ancestors have given us a rich cultural past and their efforts for preserving our rich heritage should not be wasted. Our monuments and sites are our assets and it is our prime responsibility to preserve them. Our ancient monuments and sites define our rich ancient past. Collective efforts are needed to develop a cultural friendly ecosystem. There is need to fill the enthusiasm among the people to conserve the rich heritage. Creation of awareness on the preservation of historic monuments and sites is need of the hour. We need to preserve our rich heritage for our future generations. The experts from diverse fields like architecture, engineering, geology and archaeology have retained some of the most scintillating and marvelous monuments for our younger generations. School children can be made aware of World Heritage through the organization of various recreational activities in the school. Different types of story telling, essay writing, drawing and poster making etc. sessions on ancient heritage monuments and sites can be organized. World Heritage is defined as the shared wealth of humankind. This day reminds us of our rich past. Firstly the seeds of World Heritage Day were sown on 18th of April 1982. It was firstly proposed by the International Council of Monuments and Sites (ICOMOS) on 18th of April, 1982 and approved by the General Assembly of UNESCO in 1983. There are grand total of 1,121 UNESCO World Heritage Sites across the globe of which 869 are cultural, 213 are natural and 39 are a mixture. It has been observed that some cultures were accepted, some were forced upon the people, some were rejected by the people and some cultures were damaged. World Heritage Site is a place such as a building, desert, forest, island, monument etc. which is listed by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) as being of special importance. The International Council for Monuments and Sites (ICOMOS) organized a symposium in Tunisia. The calls were made for celebration of an "International Day for Monuments and Sites" all over the world. This idea picked up the pace and the committee approved the suggestion. The proposal for the celebration of this day was then moved to UNESCO General Conference where a resolution was passed in November 1983. Since that day, the people across the globe have been celebrating the "International Monuments and Sites Day" also known as "Word Heritage Day" on 18th of April. There is need to recognize the people involved in preserving the sites and monuments, especially scientists, geographers, archaeologists and engineers on this day. Our rich heritage can be protected with our collaborative efforts

Heritage sites are vulnerable to several factors and we must do our own efforts to protect these valuable assets. In India there is no dearth of cultural, natural and historical sites and monuments. It is rich in its ancient monuments and sites that remind us about the rich historical background. All of them have rich history and some were made centuries ago and still stand tall. Future generations respect those nations and civilizations who protect their culture and environment for posterity India is rich in monuments and sites that signify our rich culture and heritage. Some of these sites are known across the globe such as the Taj Mahal in Agra or the iconic Chhatrapati Shivaji Terminus in Mumbai. There are various other structures that give us a peek into the bygone era. UNESCO has listed 35 sites in India as part of its World Heritage Sites and that makes India among the top countries in the world in terms of heritage sites. Monuments and sites are the places of importance of cultural or natural heritage as defined by the UNESCO. However, many of us aren't too familiar with all this. Some of the world famous heritage sites are situated in India. Taj Mahal is said be an abode of love immortalized in stone, the marble mausoleum built by Mughal Emperor Shah Jahan. Taj Mahal has considered among the Seven Wonders of the World. One of the most iconic buildings, the mausoleum attracts a large number of visitors across the globe. Elephanta Caves are situated in Maharashtra state. These caves have been carved out of single solid basalt rock. The caves are filled with beautiful stone carvings of Hindu gods and goddess. The sculpture of Mount Kailash, Parvati, Ravana and especially of Lord Shiva, which shows his three moods as the creator, the destroyer and the preserver, are the masterpieces. Kaziranga National Park has been established in Asam state. It was started in 1905 at the orders of British Viceroy Lord Curzon following a request from his wife. This wildlife park is famous for its one-horned rhino population. Mahabodhi Temple is found in Bihar. This temple is known for the spot where Lord Buddha got enlightenment. At this sacred place monks take their pledge and wear their ceremonial robes for the first time. The temple has been built in Dravidian architecture style around the original Bodhi tree which sheltered Lord Buddha. Fatehpur Sikri is situated in Uttar Pradesh. It was found in 1569 and the city served as the Mughal capital. The city is the manifestation of Mughal Emperor Akbar's dream to build a grand capital for his empire. The Great Munhall's grand city was abandoned just 16 years after it was built due to the acute shortage of water. The Nanda Devi National Park and Valley of Flowers National Parks is another lesser known UNESCO World Heritage Site and is located in Uttrakhand. The Great Living Chola Temples were built by the Chola Empire. The site includes three temples, the Brihadisvara Temple at Thanjavur, the Brihadisvara Temple at Gangaikondacholisvaram and the Airavatesvara Temple at Darasuram. These temples show the achievements of the Chola in architecture. Our monuments and sites are valuable assets of human civilization. There is need to create awareness about the diversity of cultural heritage of humanity and their vulnerability and the efforts needed for their protection and conservation. It is our huge responsibility to protect our rich heritage and offer it to our future generations.

# **MOTHER, ABOVE ALL**

#### ER J.R ARYAN

omeone has beautifully remarked, "An honest man is the noblest work of God". I, very confidently, feel & Nexpect no body to deny that a mother is a true messenger from the heavens, a unique and unprecedented blessing of the Mother Nature and a supreme creation of the Almighty for all the living beings on the earth or elsewhere to make them truly understand through the soft motherly lulls & touches, what love & affection is all about. Right from her womb as she conceives, she bears, cares and endears us, and her affection and love proceeds and a never recedes even with an iota of difference, upto her last breath.

It is also very true that providence - the mother Nature, as it is usually called, is the supreme mother of the entire life of the universe who sent down a divine gift, our mother, to us all as Her true messenger, to propagate true affection, love & care on the earth to make us aware of feelings of a mother full of motherly affection for which no price can be fixed. It is invaluable. A mother is a Supreme Treasure of affection solace, sympathy and pleasure in a family to regulate it with care, caution and cheer; as she is the best maker and care taker of young ones from their cradle to their full youth and even after, as she never ceases to play her motherly role up to her last breath, even if her son or daughter would have reached the stage of wrinkles writ large on their faces. Teen age also known as green age of a young one, the most sensitive and tender part of life, is closely watched and taken care of by the prominent role of a mother who plays a cruciate pivotal part to mould her son or daughter at this stage or turning point; as she is a mother to do what she has been assigned to do by the Mother Nature which no one else can have the capacity to perform.

The first dose of nourishment a newly born screaming child receives from his mother is through the first breastfeeding or suckling, together with the motherly affectionate solace, caresses and touch which by and by rocks him to comfortable sleep. It is a mother who has to sail through sleepless nights Just to lull her child to fall asleep at many times and she never feels tired rather finds solace and grace to keep her baby at ease and comfort, despite her all unexpressed fatigue. A mother's role is really supreme, praiseworthy and beggars no description.

Be it sweltering heat or freezing cold, any stress or strain, a journey in rough or plain, amidst any joy or pain, weal or woe, through thick or thin, she is always with her children and family to encourage them with all her energy, mind and

healthy suggestions and other humane values to act like a pillar to sustain and maintain the family structure from buckling. It is said that a mother's blessing or pat on the back is an enormous force to set one on the right course to achieve success and divorce access to harmful nexus. A mother's good wish goes to extinguish all the anguish of her children and the nearest and dearest ones.

It is said if you have one child you are a parent and having two or more makes you a refree. This is very true in respect of a mother than a father, as she has always to act like a refree for any dispute or squabble, be it between the kids itself or between them and their papa. Her affectionate Cord binds them together to dismiss the quarrel. As per a folk story once a Youngman having fallen in a wrong nexus was asked to kill his mother and get her liver (Kaleja) to offer to the boss of the gang so that the yougman shall become 2" in command. The Youngman killed his mother and was on his way towards the gang centre with his mother's liver in hand when he suddenly stumbled and fell down with an injury causing profuse bleeding, when he, to his utmost surprise, heard his mother's voice saving. "My dear, did you get injured? Do you have pain? Don't worry it shall subside soon". The voice came to be heard as if from the liver of mother having fallen aside. Even after the death the mother's soul was there to console and share his pain & guide him. This is only mother and none other.

A mother mothers in all the weathers. Her love is all above, pure, real plain, selfless, magnanimous, unmatched, gorgeous crystal clear, concealingly radiant, serene, unspeakingly expressive, penetratingly soft and, of course, of heavenly touch. Scientific studies also reveal that there is a specific natural link between a mother and her child. A mother's soft caress or fondle carries numerous calories of warmth & affection to her child which significantly add to his development and nourishment so much so that the baby recognized his mother under the sense of touch .A mother love full kiss, pat or caress natures the biological development of his brain and central nervous system at the same time a Child's touch, or playful rocking activity in turn boost mother courage, stamina and adds ounces of blood to her this is really his great natural biology. It is not great wonder of the Almighty or the providence that a married girl having conceived a child to likely become a mother does develop within her breasts the most balanced diet namely milk for the baby even months before the baby is born. Is it not a blessing from the Mother Nature to the mother on earth? A mother is undoubtedly above all in showing her

true affection, blessings, sympathy and solace to her offspring for their growth, wellbeing and happiness.

EDITORIAL

In almost all species be they the Birds or mammals etc. there is a glaring manifestations of motherly affections towards their young ones which again reflects, illustrates or narrates rather defines the high & holy status of a mother & her pure love so supreme and sweet.

Our. Prophets, saints, Gurus, Darveshs all have had the "care, affection and blessings of their mothers to mould them as what they have been are what they are for the mankind to show the true path, as a gift of their mothers.

All of us be it great scientists, Leaders Pleaders, Doctors. Engineers, Architects, statesmen, warriors, Martyrs, sportsmen, space, land or sea masters or a man or woman anywhere in any capacity have had the warmth of the lap of mother with suckling and fondling and overall care from our infancy till the mother lived, for our well-being and betterment which none of us can afford to deny. Even a goon, ruffian, thief, a criminal or a militant does have a mother having brought him up from his tender age to see him happy or prosperous, and none of the above lot can dare to blame her for what they have turned to be because of the influence of the wrong channels of society which they adopted by saying good bye to the mother's treasure of virtues and values. Even those of these who would have been deprived of mother's love and care due to her having died during their childhood too should blame the society alone, because a mother never mothers a son to smother another mother's son". A mother is mother from the beginning to the end without any bend or twist in the line of her affection.

Thus a mother is a unique heavenly boon to every living being whatever he be and wherever he be, to nourish him and to cherish him, to nurture him, culture him, to roost him and to boost him, to guide him and side him towards better ideas and values so long as she survives

In a nutshell there is none else like mother. Please worship her too, because :- A mother mothers in all the weathers. Be it hot or biting cold, be it stress or be it strain be it scorching or be it rain, be it bright or be dark, be dawn or be dusk, be it day or be it night, be it rough or be it fair, be it woe or be it cheer :- She is always there to take care of our well being and all round cheer, happiness and welfare in true sprit and full gear without any hitch or fear being though candid and sincerer so worship her- the supreme gift of God.

(The writer is retired Ex-Engineer).

# Earth and earthquake: Cause and Possibilities

### DR RAJKUMAR SINGH

arthquakes are natural geological phenomena caused by the sudden release of energy stored in the Earth's crust, resulting in seismic waves. These waves generate ground shaking, which can range from mild tremors to devastating shocks depending on the magnitude of the earthquake and its proximity to populated areas. The Earth's crust is divided into large pieces called tectonic plates, which are constantly moving due to the convective currents in the Earth's mantle beneath them. When these plates collide, slide past each other, or diverge, stress builds up along their boundaries or faults. Eventually, this stress overcomes the friction holding the rocks together, leading to sudden movement along the fault line, which releases energy in the form of seismic waves, causing an earthquake.Earthquakes can cause a variety of destructive effects, including ground shaking, landslides, tsunamis (when they occur under the ocean), and even volcanic eruptions in some cases. They pose significant risks to human populations, infrastructure, and the environment. Monitoring and understanding earthquakes are essential for mitigating their impacts and improving disaster preparedness. Seismologists use seismometers and other instruments to detect and measure seismic waves, allowing them to locate the epicenter and determine the magnitude of an earthquake.

### Background of earthquake

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which propagate through the Earth and cause ground shaking.c. Elastic Rebound Theory: Developed by American geologist Harry Fielding Reid in the early 20th century, this theory explains the process by which earthquakes occur. According to this theory, stress builds up along a fault as tectonic forces exert pressure on the rocks. When the stress exceeds the strength of the rocks, they suddenly fracture and move, releasing the stored energy in the form of seismic waves. Overall, earthquakes are a natural consequence of the dynamic processes occurring within the Earth's lithosphere.

#### Causes of earthquake

Earthquakes are caused by a variety of geological processes and phenomena. Here are the main causes: a. Tectonic Activity: The primary cause of earthquakes is the movement of tectonic plates. These large and rigid pieces of the Earth's lithosphere are in constant motion, driven by convective currents in the underlying mantle. When plates interact at their boundaries, stress builds up along faults, which are fractures in the Earth's crust. Eventually, the accumulated stress exceeds the strength of the rocks, causing them to fracture and release energy in the form of seismic waves. b. Subduction Zones: Subduction zones occur where one tectonic plate is forced beneath another into the Earth's mantle. The intense pressure and friction at these boundaries can lead to powerful earthquakes as the subducting plate descends into the mantle. Subduction zone earthquakes are often associated with deep-focus seismic activity and can produce some of the largest earthquakes on Earth. c. Transform Boundaries: At transform boundaries, tectonic plates slide past each other horizontally. The friction between the plates can cause them to become locked, preventing movement. As stress continues to accumulate, the locked fault eventually ruptures, resulting in an earthquake. Famous examples of transform boundaries include the San Andreas Fault in California. d. Volcanic Activity: Earthquakes can also be triggered by volcanic activity. Magma movement beneath the Earth's surface can create pressure and stress on surrounding rocks, leading to earthquakes. Additionally, volcanic eruptions can cause the overlying crust to collapse, generating seismic waves. e. Human Activities: While most earthquakes are caused by natural processes, human activities such as mining, reservoir-induced seismicity (due to the filling of large reservoirs behind dams), and hydraulic fracturing (fracking) can induce earthquakes. These humaninduced earthquakes typically have lower magnitudes but can still pose risks to nearby communities and infrastructure.

#### **Bases of prediction**

Predicting earthquakes with pinpoint accuracy remains a significant challenge in seismology due to the complex and dynamic nature of the Earth's crust. Researchers employ various methods and bases for earthquake prediction, though they primarily focus on forecasting rather than precise predictions. Some of the key bases for earthquake prediction include: a. Seismic Monitoring: Seismologists continuously monitor seismic activity worldwide using networks of seismometers. By analysing patterns of seismicity, such as the frequency, magnitude, and location of earthquakes, scientists can identify regions with increased seismic risk. Clusters of smaller earthquakes (foreshocks) may sometimes precede larger earthquakes (mainshocks), providing valuable information for forecasting. b. Fault Mapping: Mapping of active fault lines and geological structures helps identify areas at higher risk of earthquakes. By studying the history of seismic activity along these faults, scientists can assess the likelihood of future earthquakes and estimate their potential magnitude. c. Strain and Deformation Analysis: Monitoring crustal deformation using techniques such as GPS (Global Positioning System) and InSAR (Interferometric Synthetic Aperture Radar) allows scientists to measure the accumulation of stress along fault lines. Changes in strain patterns can indicate areas of increased seismic hazard. d. Foreshock Activity: The occurrence of foreshocks, smaller earthquakes that precede larger can sometimes provide clues about impending seismic events. However, not all foreshocks precede major earthquakes, making this method unreliable for precise prediction. e. Statistical Models and Probabilistic Forecasting: Seismologists use statistical models to assess earthquake probabilities based on historical seismic data and geological characteristics of a region. Probabilistic forecasting provides estimates of the likelihood of future earthquakes within a certain time frame and magnitude range.f. Experimental Methods: Scientists are exploring experimental methods, such as laboratory experiments on rock samples and numerical simulations. to better understand the mechanics of fault rupture and earthquake initiation. Despite significant advancements in earthquake research, precise prediction of individual earthquakes remains elusive. Instead, the focus is on probabilistic forecasting and preparedness measures to mitigate the impacts of future seismic events.

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tied to the geological processes that shape the Earth's surface: a. Types of Plate Boundaries: There are three main types of plate boundaries: Divergent Boundaries: Here, plates move away from each other, creating new crust as magma rises from below. Earthquakes at these boundaries tend to be shallow and less powerful.Convergent Boundaries: At these boundaries, plates collide or move toward each other. Depending on the types of plates involved (oceanic vs. continental), subduction zones or collision zones are formed. Subduction zones are associated with powerful earthquakes due to the intense friction and stress as one plate is forced beneath another Transform Boundaries: Plates slide past each other horizontally at transform boundaries. Friction between the plates can cause them to become locked, leading to stress build-up and sudden release, resulting in earthquakes along faults such as the San Andreas Fault in California.b. Faults: Faults are fractures in the Earth's crust where movement has occurred. Earthquakes commonly occur along faults as the rocks on either side move past each other. The sudden movement along a fault generates seismic waves,

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## Nature sent a wake-up call in Dubai

#### SURJIT FLORA

he global community is witnessing the consequences of intense rainfall L in nations such as Dubai and Oman. This unexpected and turbulent rainfall serves as a warning not just for the Middle East but for the entire globe. In Dubai, rainfall is a rare occurrence. and the city's infrastructure is not wellequipped to handle significant amounts of rain. In Dubai, heavy rainfall can often result in flooding and pose various challenges, as we just witnessed on Monday. Nevertheless, Dubai has made significant efforts to enhance its infrastructure in order to effectively manage unforeseen weather conditions, such as heavy rain.

In addition, Dubai has become a leader in cloud-seeding technology, a practice that has sparked debate as it attempts to stimulate rainfall.

Although the government denies any connection between cloud-seeding and the recent downpour, numerous residents believe that the heavy rainfall is a result of the unintended effects of weather modification efforts.

Indeed! With a staggering rainfall of 254 mm in just twenty-four hours and

relentless storms, it's becoming increasingly clear how much human interference has impacted nature, and the consequences are now becoming evident.

However, some people believe that 'cloud seeding' may be responsible for such a situation. Perhaps another factor to consider is the possibility of sea level rise. Scientists and experts from the National Aeronautics and Space Administration (NASA) have been sounding the alarm for years about the alarming amount of solid waste being dumped into rivers and drains, according to calculations based on the global population of over 8 billion people.

As waste accumulates in the oceans, it is inevitable that sea levels will increase. It's widely accepted that the interconnectedness of the world's oceans is a wellestablished geographical and scientific fact

This interconnectedness plays a crucial role in maintaining a consistent water level across all the oceans. If the level continues to rise, cities like Vancouver in British Columbia, Canada, and other coastal cities around the world, including some in India, could face the threat of being submerged in water. The alarming scenes of Dubai that have caught everyone's attention are now raising concerns for coastal towns. Global

warming is responsible for this outcome. Based on data from NASA scientists, it has been observed that the sea water level on Earth experienced a gradual increase of 3.6 mm between the years 2006 and 2015.

The level also rises as a result of the accelerated melting of ice glaciers at the North and South poles brought on by the planet's warming temperatures.

In the event that all the ice on the mountains and poles were to melt, it is widely accepted among scientists that the sea level would rise by approximately 230 feet. This would have significant consequences, as it would result in the submersion of not only coastal cities but also numerous other cities, towns, and villages around the world.

This situation can only be described as a flood. Based on a scientific study from 2023, it has been projected that a significant portion of mountain glaciers will undergo melting when the temperature rises by 1.5 degrees Celsius.

This scenario would undoubtedly have catastrophic consequences for our planet and all living beings. It is crucial to acknowledge the potential consequences of rising sea levels, particularly the rapid erosion of shorelines and the potential threat it poses to coastal populations. Given the circumstances, it is possible for the low-lying areas to experience longterm flooding, leading to numerous challenges for the general population. This will have a negative impact on the water bodies, affecting the ecosystem for fish, birds, and plants.

Based on the 2022 report from the National Ocean Service, it is projected that the sea level will increase by two feet over the course of 80 years, from 2020 to 2100. It is crucial for individuals to proactively address and prevent such circumstances moving forward.

Amidst Dubai's impressive landmarks, like the Dubai Frame, which showcases a glimpse of a futuristic cityscape, there exists a stark reminder of the vulnerability of our environment in the midst of constant development.

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