Art & Culture

August 13, 2017

### This Day in History

#### (August 13)

Today is Sunday; 22nd of the Iranian month of Mordad 1396 solar hijri; corresponding to 20th of the Islamic month of Zil-Qa'dah 1438 lunar hijri; and August 13, 2017, of the Christian Gregorian Calendar

1435 solar years ago, on this day in 582 AD, Maurice became Emperor of Byzantine (Eastern Roman Empire) in the midst of war with Iran's Sassanid Empire, shortly after his marriage to Constantina the daughter of Emperor Tiberius II Constantine, who died the following day. He brought to an end the intermittent wars between the Iranians and Romans. The opportunity came in 590 when Prince Khosrow after overthrowing his father, Emperor Hormuz IV, and ascending the throne of Ctesiphon as Khosrow II was defeated by the rebellious general Bahram Chobin, who now siezed the Iranian throne. Khosrow fled to the Byzantine court in Constantinople. Maurice helped him regain the Sassanid Empire in 591 when the combined Byzantine-Persian army under generals John Mystacon and Narses defeated Bahram Chobin's forces near Ganzak at the Battle of Blarathon. Khosrow II took the title of Pervez and rewarded Maurice by ceding western Armenia up to the lakes Van and Sevan. Maurice and Khosrow signed a treaty called 'perpetual peace' which meant that for the first time in two centuries the Romans were no longer obliged to pay the Iranians millions of pounds of gold annually as tribute. In 602 after a 20-year reign Maurice was overthrown by the general Phocas, who usurped the throne and murdered him. Before being beheaded he was forced to watch his six sons executed. His eldest son Theodosius, fled to the Sassanid court for aid, prompting Emperor Khosrow II to renew the wars between the two empires, and resulting in Iran's capture of Syria, Egypt and all of modern day Turkey, right up to the gates of Constantinople. Though Phocas was killed and replaced by Heraclius, the 26-year long war proved cataclysmic for both the empires, which within the next five years were overrun by Arab Muslims, who completely changed the demography and history of the region.

1168 lunar years ago, on this day in 270 AH, Founder of the Tulunid Dynasty of Egypt, Ahmad Ibn Tulun, died after a 17-year rule during which he killed at least eighteen thousand people. His father, Tulun, was a Turkic slave sent as part of a tribute by the Iranian governor of Bukhara to the Abbasid caliph, Ma'mun. Ibn Tulun received military training in Samarra, where he was appointed commander of the special forces of the tyrannical caliph, Mutawakkil. In the reign of Mu'taz, he was made governor of Egypt. Since, the then capital of Egypt, al-Fustat, was too small to accommodate his armies, he founded a new city nearby called "Madinat al-Qatta'i" (Quartered City), to serve as capital. It was laid out in the style of the grand cities of Iran, including a large public square, a palace, and a large mosque. Ibn Tulun asserted his independence from Baghdad by minting coins in his name and seizing control of large parts of Syria. Within two decades after him, the inefficient rule of his son and grandsons brought about the collapse of the dynasty.

1068 lunar years ago, on this day in 370 AH (980 AD), the prominent Iranian Islamic genius, Abu Ali Hussain Ibn Abdullah Ibn Sina, was born near Bukhara, capital of the Iranian Samanid Dynasty (presently in Uzbekistan). He memorized the Holy Qur'an at a young age and soon mastered logic, medicine, astronomy, geometry, and philosophy. He was a genius, who because of his political views and religious inclinations towards Prophet Mohammad's (SAWA) Ahl al-Bayt, found himself persecuted by Sultan Mahmoud of Ghazna. As a result he joined the Buwaiyhid court in Rayy before settling in Isfahan where he served as vizier. Known as Avicenna to medieval Europe, his works were translated into Latin and for several centuries were taught at most western universities. Among his books are "ash-Shefa" on philosophy; "al-Qanoun fi't-Tibb" (Canons of Medicine), and "Isharaat wa'l-Tanbihat" (Remarks and Admonitions). He wrote almost all his works in Arabic and of the few books written by him in his native Persian is the "Danishnama-e Alai" (Book of Knowledge for Amir] Ala od-Dowlah). He died in Hamedan.

1057 lunar years ago, on this day in 381 AH, the famous Greek Muslim general and statesman of the Fatemid Ismaili Shi'a Muslim dynasty of Egypt and North Africa, Jowhar as-Siqili (the Sicilian), passed away. He conquered Egypt and built the city of Cairo including the famous al-Azhar Mosque and academy. Born a Christian on the island of Sicily near what is now Italy, he embraced Islam and joined the service of the Fatemids, soon rising into prominence as Chancellor and General. He subdued North Africa as far as the Atlantic coast and turned towards the east to wrest control of Egypt from the Ikhshidid Turkic governors of the Abbasid caliphate. "al-Azhar", is a derivative of "az-Zahra" (the Radiant), the epithet of Prophet Mohammad's (SAWA) Daughter, Hazrat Fatema (SA)

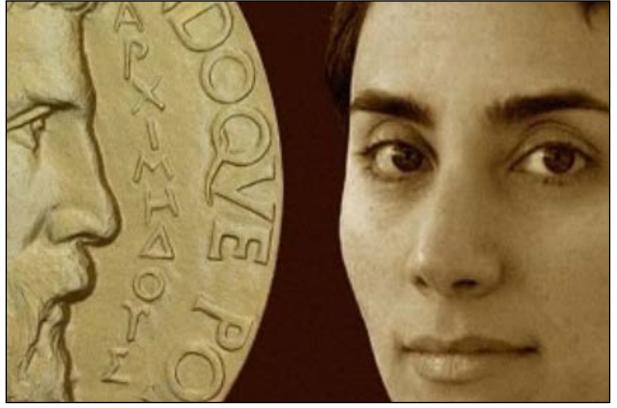
706 solar years ago, on this day in 1311 AD, Alfonso XI, the king of Castile, who was notorious for his enmity towards Spanish Muslims, was born to Ferdinand IV. In 1313 he became an infant king on the death of his father, under a regency council. In 1325 he assumed power, made a bloody purge of all potential rivals to his throne, and immediately launched military attacks on the Muslim dynasties of Spain. For the next quarter century until his death in 1350 during the 5th unsuccessful Siege of Gibraltar, he used to terrorize Muslims. In 1344 he had occupied the Muslim kingdom of Alegeciras. Four years earlier he had resorted to ruse, treachery and use of Christian mercenaries from Europe to win the Battle of Rio Salado

496 solar years ago, on this day in 1521 AD, Tenochtitlan - present day Mexico City - fell o the Spanish invaders led by Hernan Cortes, who unleashed a great slaughter of the native Mexicans and destroyed their palaces, temples, homes and hearths, in his greed for gold.

481 solar years ago, on this day in 1536 AD, Buddhist monks from Kyoto's Enryakui temple set fire to 21 temples throughout Japan in what is known as the Tenbun Hokke Disturbance. The Buddhists, despite claiming to be peaceful, have a violent history of carrying out mass massacres

186 solar years ago, on this day in 1831 AD, enslaved black African, Nat Turner, saw a solar eclipse and interpreted it as a sign of God to launch an uprising against the Anglo-Saxon racists. Eight days later, after assembling the freedom-seeking black people in the US, he started his uprising in Southampton County, Virginia, by freeing many African people from slavery. The uprising was brutally crushed after a few days by the White racist government. Turner survived in hiding for over two months afterwards, but was hunted down and hanged. His corpse was flayed, beheaded and quartered by the white Americans who went on to

# **Mirzakhani Math Course to Be Granted to Iranian Mathematicians**



Late Iranian math elite Maryam Mirzakhani.

TEHRAN (IRNA) -- Maryam to be granted to top Iranian Mirzakhani's math course is

mathematicians, head of Iran National

Science Foundation (INSF) said. The ten-year-old course will be

given to best mathematician of the country; Nasrollah Zargham said in a press conference on Saturday.

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The winner will receive 50 million toman (over 13,000 dollars).

The Iranian winner of Fields Medal, also known as the Nobel Prize of mathematics, and Stanford University professor, Mirzakhani, recently passed away at 40 in a hospital in the U.S.

In 1994, Mirzakhani won a gold medal in the Hong Kong International Mathematical Olympiad, to be the first female Iranian student to have received a gold medal. In the 1995 Toronto International Mathematical Olympiad, she became the first Iranian student to receive a perfect score and to win two gold medals.

She obtained her BSc in mathematics (1999) from Sharif University of Technology, Tehran. She went to the U.S. and got her PhD from Harvard University in 2004

Mirzakhani was diagnosed with breast cancer in 2013, a year before she set the record of the first ever woman to win the prestigious Fields Medal in mathematics.

### Scientists Pave Way For Pig-to-Human Organ Transplant

WASHINGTON (Dispatches) -Scientists have removed DNA-based viruses that usually infect pig organs, raising the chances that these animal organs could be safely transplanted into human patients one day.

However, the breakthrough, according to authors of the study published in the journal Science, would still need to change other elements of pig transplants to ensure

## **No More Tooth Decay**

WASHINGTON (Dispatches) -Researchers say they have created a small molecule that prevents or impedes tooth cavities in a preclinical model.

According to scientists at the University of Alabama at Birmingham, the inhibitor blocks the function of a key virulence enzyme in an oral bacterium, a molecular sabotage that is akin to throwing a monkey wrench into machinery to iam the gears.

the human body doesn't reject them. Currently, there is a dramatic shortage in the number of organ transplants available for people who need them and many people die before they receive one. Animals such as pigs could theoretically supply an unlimited source of such organs. But immune incompatibilities and viruses that are incorporated into the pig genome, called porcine endogenous retroviruses (PERVs), have made it very likely that such pig organs would never take on their own.

The team first confirmed that PERVs in pig cells can be transmitted to human cells when cultured together. Exposing human cells infected with PERV to uninfected humans cells also resulted in transmission, highlighting the need to deactivate PERVs in pigs if transplantation is to one day occur.

Next, the researchers mapped and characterized the PERVs present in the genome of pig fibroblast cells,



identifying 25 in total. They used the gene editing tool CRISPR to deactivate all 25 genomic sites. Despite the presence of highly modified cells in the population, none of the cloned cells could be grown with greater than 90% PERV editing efficiency. By adding a concoction of additional factors

related to DNA repair, however, the team was able to grow viable cells with 100% of PERVs deactivated.

When they implanted the embryos into sows, they found that the resulting piglets exhibited no signs of PERVs, with some piglets surviving up to four months after birth.

Pictura

massacre over 200 black people.

107 solar years ago, on this day in 1910 AD, the famous English Nurse, Florence Nightingale, died. Her contributions to public health began from experience during the Crimean War as a nurse at a British hospital in the Ottoman Empire where she witnessed appalling conditions endured by the sick: overcrowding, poor sanitation, lack of basic supplies, even malnutrition. By the war's end in July 1856, she had greatly improved the comfort of patients and reduced the death toll.

99 solar years ago, on this day in 1918 AD, Noor Mohammad Hassan-Ali, the first Trinidadian of Indian origin to hold the office of President and the first Muslim head of state in the Americas, was born in San Fernando. After qualifying as a lawyer from Britain, he returned to his homeland to practice law. After serving as a member of the Senate, rose to become the Chief Judge. He won the 1987 elections and served as president for two 5-year successive terms till 1997. As a Muslim, he chose not to serve alcoholic beverages during functions at the President's House.

64 solar years ago, on this day in 1953 AD, the British-installed Pahlavi potentate of Iran, Mohammad Reza, secretly dismissed the popular Prime Minister, Dr. Mohammad Mosaddeq, on the orders of his masters in London and Washington following the nationalization of Iran's oil industry that was a loss for colonial powers. When his plot to dismiss Mosaddeq failed, he fled to Iraq and then to Italy. Six days after his escape, the US and Britain staged a coup to oust Mosaddeq and restored the Pahlavi regime. Thereafter, the Shah continued his repressive policies against the Iranian people, while the US and Britain plundered Iran's riches.

39 solar years ago, on this day in 1978 AD, massive rallies were staged by Iranians against the Shah's despotic regime in Isfahan, making the frightened Pahlavi regime impose martial law on this historical city.

7 solar years ago, on this day in 2010 AD, the Bosnia's war crimes court convicted 4 Serb army officers for the brutal killing of at least 800 Bosnian Muslims near Srebrenica in July, 1995. Tens of thousands of Bosnian Muslims were massacred during the war.

3 solar years ago, on this day in 2014 AD, at the International Congress of mathematicians in South Korea, Iranian mathematician Prof. Maryam Mirzakhani of Stanford University, was awarded the Fields Medal for her work in understanding the mathematical symmetry of curved surfaces and saddle-shaped spaces. She died on July 14 this year at the age of 42 following a breast-cancer surgery in the US, which did not allow her to return to Iran despite her longing.

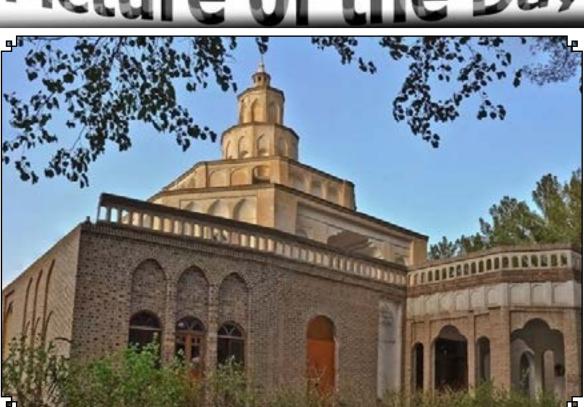
(Courtesy: IRIB English Radio – http://parstoday.com/en)

In the presence of the molecule, Streptococcus mutans -- the prime bacterial cause of the tooth decay called dental caries -- is unable to make the protective and sticky biofilm that allows it to glue to the tooth surface, where it eats away tooth enamel by producing lactic acid.

This selective inhibition of the sticky biofilm appears to act specifically against S. mutans, and the inhibitor drastically reduced dental caries in rats fed a caries-promoting diet.

"Our compound is drug-like, nonbactericidal and easy to synthesize, and it exhibits very potent efficacy in vivo," the researchers explained in an article in Scientific Reports. It is "an excellent candidate that can be developed into therapeutic drugs that prevent and treat dental caries.'

About 2.3 billion people worldwide have dental caries in their permanent teeth, according to a 2015 Global Burden of Disease study. Current practices to prevent cavities, such as mouthwash and tooth brushing, indiscriminately remove oral bacteria through chemical and physical means, and have limited success.



Kolah Farangi Citadel built during the late Zand and early Qajar eras between 1848 and 1895 is located in Birjand, the capital of South Khorasan province, Iran.

Courtesy: Tasnim News Agency