



November 12, 2015

American English edition

Issue Number 262

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Aung San Suu Kyi, the leader of the National League for Democracy (NLD). Inset: Speaking to her supporters

MYANMAR'S HISTORIC ELECTION

A historic election took place in Myanmar on November 8. It was organized by the country's electoral commission. Many people believed that it was the first proper democratic election to be held in Myanmar for 25 years. Around 30 million people voted to select members of the country's national parliament.

Officials from the electoral commission began to announce the results the following day. By November 12 they confirmed that the National League for Democracy (NLD) had won more than 80% of the seats. Aung San Suu Kyi is the leader of the NLD. When a political party wins an election by a large margin like this it is called "a landslide".

Burma, as Myanmar was previously called, is a former British colony. In 1947 Aung San (Ms. Suu Kyi's father) became the leader of a newly independent Burma. However, later that same

year, his rivals murdered him. Then, Ms. Suu Kyi was two years old. Her father had fought against the Japanese when they occupied Burma in the Second World War (1939 – 1945). Today, many people in Myanmar still call Aung San the "father" of their country.

After the death of her husband, Ms. Suu Kyi's mother went to work in India. This was where Ms. Suu Kyi first went to school. Later, she studied at Oxford University, in Britain. Ms. Suu Kyi then moved to New York City, in the U.S. There, she worked for the United Nations (U.N.). She married a British man whom she had met at university. They had two children.

In 1963 a group of army generals, or junta, took control of Burma. After living in India for many years, Ms. Suu Kyi's mother returned to Myanmar. In 1988 she became ill. Ms. Suu Kyi went back to

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look after her. She left her husband and children in Britain. Ms. Suu Kyi planned to return after her mother had recovered.

At that time, many demonstrations against the junta were taking place in Yangon, Myanmar's capital city. Soldiers were ordered to shoot the protesters. Thousands died. Ms. Suu Kyi made her first political speech. She declared that the junta's rule must end and democratic elections held. Ms. Suu Kyi then helped to set up the NLD. She was arrested soon afterwards.

The junta allowed Ms. Suu Kyi to live in her own house, but she had to stay inside. This is known as house arrest. In 1990 the generals arranged for elections to be held. They expected political groups that supported them to get the most votes. Even though Ms. Suu Kyi was under house arrest, the NLD won easily. The junta decided to ignore the election. Large street protests followed. Thousands of NLD supporters were killed and hundreds arrested.

World leaders said that the generals must accept the election result. They also demanded the release of Ms. Suu Kyi and all political prisoners. Yet the junta took no notice. Myanmar became cut off from most of the rest of the world.

In 1997 Ms. Suu Kyi's husband was **diagnosed** with cancer. The junta refused to let him visit his wife in Myanmar. Ms. Suu Kyi then made a difficult decision. She knew that if she returned to Britain to spend time with her husband, the junta would not let her come back. Ms. Suu Kyi had not seen her husband and children for a long time. She decided to stay in Myanmar. Her husband died two years later.

In 2010, after a 20-year gap, the junta organized another election.



The Assembly of the Union (Pyidaungsu Hluttaw) in Naypyidaw, Myanmar's capital city

The NLD decided to **boycott** the vote, or not to take part. Most people said that the election was neither free nor fair. Some reports said that people were forced to vote for the two political groups that support the junta.

One of these parties is the Union Solidarity and Development Party (USDP). After the election Thein Sein became the leader of the USDP and the country's president. He used to be one of Myanmar's senior army generals. Five years before the election, the junta decided to build a new capital city. Called Naypyidaw, it is in the center of the country. A large parliament building was constructed in the new capital. It's called the Assembly of the Union. It has a lower house (the House of Representatives) and an upper house (the House of Nationalities). In total the parliament has 664 seats.

Five years ago, the junta handed power to the USDP. Leaders of the army and police now support this party. Also, 25% of the seats in the parliament are reserved for military leaders.

Ms. Suu Kyi was released from house arrest six days after the 2010 election. She had spent 15 of the previous 21 years either in prison or under house arrest. After Nelson Mandela (1918 – 2013) was freed in 1990, Ms Suu Kyi became the

world's most famous political prisoner. Mr. Mandela spent 27 years in prison in South Africa. Four years after his release, he was elected as the president of his country. In 1991 Ms. Suu Kyi was awarded the Nobel Peace Prize.

After the electoral commission began to announce the results, NLD supporters started to celebrate. The USDP got only a small number of seats. Thein Sein, the USDP's leader and the country's president, declared that he accepted the results. He, Ms. Suu Kyi and the commander of the army are now expected to meet for talks. They will discuss how Ms. Suu Kyi plans to govern the country.

At the beginning of next year the members of parliament will have to select a new president. However, Myanmar's constitution has a rule that means Ms Suu Kyi cannot be selected for the position. The rule says that anyone with a foreign husband, wife or child is not allowed to be the country's president.

Soon after Ms. Suu Kyi was released five years ago, thousands of people gathered outside the NLD headquarters. She told the crowd that they should never give up hope. Ms. Suu Kyi predicted that, one day, democracy would return to Myanmar. Many believe that the day she talked about has now finally arrived. ■

DIAMOND SALES

The auctions, or sales, for two rare diamonds were held on November 11 and 12. Both took place in Geneva, in Switzerland. Christie's arranged the first sale. It was for a large pink diamond. A blue diamond was sold at the second auction. This sale was organized by Sotheby's. Both Christie's and Sotheby's are well-known international auction houses, or companies.

Diamonds are a form of carbon. The name comes from an Ancient Greek word that means "unbreakable". Diamonds are the hardest known natural material. In many industries they are used for cutting. For example, diamonds are fitted to drills that oil and gas companies use to bore through rock.



Sweet Josephine

Diamonds are created over millions of years around 93 miles (150 kilometers) below the Earth's surface. Here, there is a layer of magma, or hot liquid rock. This layer is called the mantle. The very high pressures and temperatures in this part of the Earth create diamonds. Diamonds are brought to the surface by deep volcanic eruptions. Most of the world's diamonds are found in Africa. The eruptions that carried them up to the surface, from deep below, happened many millions of years ago.

Gemstones, including diamonds, are measured in units called carats. A carat is 0.007 ounces (0.2

grams). When diamonds are first dug up, they are called "rough" diamonds. Experts study the rough diamond to look for flaws. They also look at the shape of the rough diamond to decide how best to cut and polish it.



The Blue Moon diamond and the rough diamond from which it was cut (Cora International)

A polished diamond is usually much smaller than the rough diamond from which it is made. This is because it is ground down to make a symmetrical shape. There are ten shapes that diamonds are cut to. These include: round, oval, pear, heart, and cushion. Different shapes of diamond are worth different amounts of money.

Diamonds are not always white or clear. Some have a color such as red, orange, green, blue, and pink. Colored diamonds are rare and, usually, much more valuable. It is difficult to see the color in smaller diamonds. The larger the colored diamond the more noticeable its color becomes. Diamond experts classify colored diamonds. The highest-grade ones (those with the best color) are described as "fancy" and "vivid". Only one diamond in every 100,000 has a color bright enough to be called "fancy".

The two diamonds sold in Geneva were a "Fancy Vivid Pink" and a "Fancy Vivid Blue". The pink diamond is 16.08 carats. It has been set into a ring. Much smaller white diamonds surround the large cushion-shaped pink diamond. At the auction it sold for \$28.5 million.

An American family had owned the pink diamond for the past 15 years. A wealthy businessman from Hong Kong, in China, bought it. The new owner was allowed to name the diamond. He called it "The Sweet Josephine" after his seven-year-old daughter.

The 12.03-carat blue diamond sold for \$48.4 million. Called the Blue Moon, it was dug up in a mine in South Africa at the beginning of 2014. As a rough, uncut, diamond it was almost 30 carats. A company called Cora International bought it from the diamond mine for \$25.6 million. Cora then cut the gemstone into a cushion shape. The new owner is the same person who bought the pink diamond. He said that he had renamed this diamond "The Blue Moon of Josephine". ■

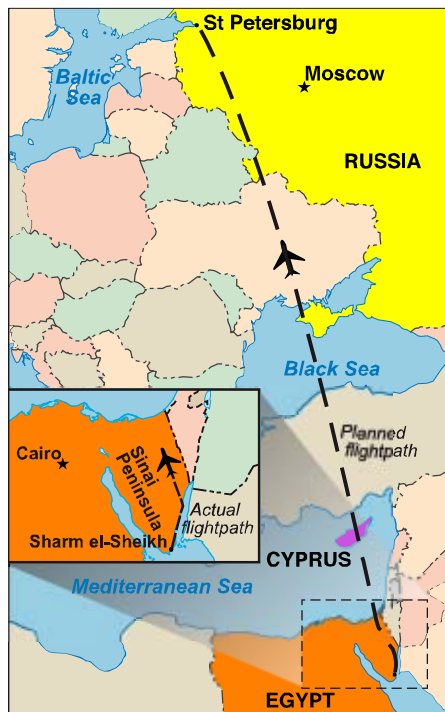
RUSSIAN PLANE CRASH

On October 31, a Russian Metrojet passenger plane took off from Sharm el-Sheikh Airport, in Egypt. On board were 217 passengers and seven crew. Most people on the aircraft were Russians. The plane was going to St. Petersburg, Russia's second largest city. The passengers included 25 children.

About 23 minutes after take-off, the plane's pilot was supposed to make contact with air traffic control (ATC) in Cyprus. He never did. Radar showed that the aircraft reached a height of 31,000 feet (9,400 meters) above the Sinai Peninsula. It then began to descend quickly before it disappeared. There were no emergency or distress calls. Rescue workers were alerted. They went to search for the plane. When the crash site was found, they announced that everyone had died. The Russian

president, Vladimir Putin, declared that November 1, would be a day of mourning in Russia.

Few people live in the central part of the Sinai Peninsula. Much of the land is **barren** and rocky. Sharm el-Sheikh is a city at the southern end of the peninsula on the coast of the Red Sea. It has become one of the regular holiday **destinations**. Sharm el-Sheikh is especially popular with tourists from Russia and Britain. The weather is hot for most of the year.



Metrojet is a small Russian airline company. It has less than ten planes. They mostly fly to European cities. Crash investigators from Russia, Egypt and France traveled to where the wreckage was found. The plane was 18 years old and made by the Airbus Company. Airbus is based in France. The distance from Sharm el-Sheikh to the crash site is about 186 miles (300 kilometers).

All passenger aircraft carry two devices nicknamed black boxes. (These devices are colored orange, as this makes them easier to find.)

Black boxes are designed to withstand crashes, fire and seawater. After an aircraft accident, investigators study the black box recordings. From these they can usually work out what caused the accident.

One of the black box devices is called the flight data recorder. This records all the mechanical workings of the plane. The other one is known as the cockpit voice recorder. It records all the sounds in the cockpit. This includes the conversation between the pilots, ATC radio messages and alarms. Soon after they got to the crash site, rescue workers found the two black boxes.

At first, it was thought that the plane had a mechanical problem. However, in recent years, a militant Islamic group has been operating in Sinai. Its leaders claim to support the Islamic State (IS). This large militant group is based in northeast Syria. Currently, Syrian and Iraqi government forces are fighting against the IS. They are being assisted by warplanes from other countries such as the U.S., Russia and France. Soon after the plane crash, militants in the Sinai said that they “had brought the plane down”. However, it’s known that they do not have missiles that can shoot down high-flying aircraft.

At the time, about 20,000 people from Britain were on vacation in Sharm el-Sheikh. A few days after the crash, the British government announced that it would send planes to the city. These would pick up all the British holidaymakers and bring them home. The British government said that the Metrojet plane had crashed after a bomb on board had exploded. A few days later, Russia made a similar announcement. It began to send planes to collect the

80,000 Russians who were staying in Sharm el-Sheikh.

Security experts now suspect that a bomb was put in a suitcase and loaded onto the plane. Egyptian officials are investigating how this could have happened. ■

COYWOLVES

A new animal has appeared in the eastern part of North America. Many people call it a coywolf or eastern coyote. Scientists say that the coywolf is a hybrid, or mix, of three different animals, coyotes, red wolves and dogs.

Coyotes are found only in North America. The new animal’s genetic makeup shows that it is 62% coyote, 27% wolf and 11% dog. The scientists think that this interbreeding first took place about 100 years ago. Now there are millions of coywolves living in the wild. The animals are 25% bigger than coyotes and have bigger jaws and stronger muscles.



Coywolf or eastern coyote

The coywolf is unusual. Normally, different species do not breed with each other. If they do, their offspring, or young, are usually infertile. This means that they are unable to have young of their own. One example is the mule. It is a hybrid from a male donkey and a female horse.

Coyotes, wolves and dogs are different species. However, they are all part of a biological family called canids (or canidae). Other canids include jackals and foxes. Biological families are animals with similar traits or characteristics. They probably had a common ancestor hundreds of thousands, or millions, of years ago. Canids all eat meat. They tend to have a long muzzle or snout (nose and mouth), upright ears, strong teeth, and bushy tails. Canids are social animals. They like to live in groups, or packs.

Today, the gray wolf is the biggest canid. These animals can be found in North America and Eurasia (Europe and Asia). By studying the animals' DNA, scientists think that gray wolves and coyotes had a common ancestor between one and two million years ago.



Eastern wolf

Coyote

Red wolves live in the eastern part of North America. They are believed to have “split” from coyotes about 300,000 years ago. Wolves are the ancestors of all dogs. It's thought that humans started training “wolf-dogs” around 10,000 years ago. However, some people believe that this happened much earlier, or about 40,000 years ago.

Red wolves and coyotes probably started breeding with each other in Ontario, in Canada, about a century ago. At that time, humans were hunting wolves and cutting down forests the animals lived in. Then,

coyotes moved from the open grasslands farther south to the formerly forested land. Farmers brought large dogs, such as German Shepherds and Doberman Pinschers, to the area. Red wolf numbers declined, so there were fewer wolves to breed with each other. To survive, the red wolves changed their behavior. They began breeding with coyotes. Later, their offspring must have mated with large dogs.

Coywolves will hunt and kill larger animals, like deer, that are too big for a coyote to attack. They are less wary of humans than wolves or coyotes. Their “dog genes” probably explain this. Coywolves can often be seen near towns and villages. They have even been seen to look both ways before crossing a road. Now, the coywolves have spread over a large area. In this area there are very few wolves and no coyotes.

Scientists are interested in the coywolf. This, they say, is because it's unusual to be able to watch and record a new animal changing so quickly. Evolution usually takes many thousands or millions of years. Even the noise the coywolf makes is a mixture of sounds. People describe it as half wolf “howls” and half coyote “yips”. ■

ALGAE SEA HARVESTER

A student from Sweden has created a design for a new device. He calls it an “algae sea harvester”. The device would be used to remove excess algae from the Baltic Sea. As well as cleaning up the sea, algae collected by the harvester could be used to make biofuel.

The Baltic Sea is in northern Europe. It is almost completely enclosed by land. The Baltic is not as

salty as most seas. Much of its water comes from surrounding freshwater rivers that drain into it. Two narrow areas of sea, called the Kattegat and Skagerrak, connect the Baltic to the North Sea and Atlantic Ocean. The Kattegat and Skagerrak separate Denmark from Sweden and Norway.

Normally, in the winter, about 45% of the Baltic Sea is covered by ice. Sometimes, if the weather is very cold, the whole sea freezes. The coastlines of Sweden, Finland, Russia, Estonia, Latvia, Lithuania, Poland, Germany, and Denmark all border the Baltic Sea.



Satellite photograph of the Baltic Sea showing the blue-green blooms of algae

In recent years, during the summer months, large areas of algae have appeared in the Baltic. These are called algae blooms. Known as blue-green algae, or cyanobacteria, the algae multiply when temperatures are warmer and there is little wind. Doctors advise that it's safest not to swim where the cyanobacteria are blooming. They say people who swim in water where the algae grows might suffer from skin rashes. Swallowing water that contains these algae can cause stomach problems.

Another reason for large algae blooms, say scientists, is fertilizers. These are used on many farms that surround the Baltic Sea. Rain

washes some of the fertilizers into rivers, which drain into the sea. The fertilizers contain extra nutrients called phosphates. These make the algae grow much faster. The ever-expanding algae blooms can then create “dead zones”.

When the algae dies it sinks to the bottom. There, it uses [dissolved](#) oxygen in the seawater to decompose. The rotting algae take more oxygen from the water than is added naturally. Most oxygen in the sea comes from the atmosphere. The process by which oxygen moves from air into water is called diffusion. As there is so little oxygen in the water, organisms that live on the bottom cannot survive. Most fish use gills to extract oxygen from the water. If it contains little or no oxygen, fish either die or go elsewhere.



Computer generated underwater view of the algae sea harvester (Fredrik Ausinsch)

The algae sea collector would work like a floating lawn mower. It can collect algae to a depth of five feet (1.5 meters). The machine's power comes from hydrogen fuel cells. It will also have two electric pumps. These pump the seawater and algae into a tank. There, the algae blooms (or biomass) are separated from the seawater. This water can then be used to push the device forward. The algae are dried with heat produced by the hydrogen fuel cells. The harvester could be remotely controlled from a nearby [companion](#), or service, boat. When the machine is full, the collected

biomass can be emptied onto this boat. Biofuels mainly come from crops that have recently been harvested. The plant matter is used to make ethanol. This is usually mixed with gasoline or diesel. More modern cars, trucks and buses can use biofuels. The sea harvester's designer says that the algae biomass can also be used for other things. Fertilizer and cosmetics are examples. The next step will be to build a prototype to check that the device works. ■

TREVI FOUNTAIN

A special ceremony was held in Rome, Italy's capital city, on the evening of November 3. It marked the reopening of the Trevi Fountain. For nearly two years, the fountain's pool has been empty and most of its stonework covered in [scaffolding](#). This was part of a big restoration project. The fountain's marble statues and stone front have been cleaned, cracks mended, the pool waterproofed, and two special pumps fitted. The pumps circulate the water from the pool back through the fountain.

Currently, the city of Rome has little money. A few years ago the bosses of several famous Italian companies offered to help. They agreed to pay for the restoration work that some of Rome's ancient buildings and monuments badly needed. A shoe company called Tod's is currently paying for the Colosseum to be cleaned. This huge elliptical-shaped building is an open-air arena, or amphitheater. The Colosseum is almost 2,000 years old. It is where Roman citizens watched gladiator fights. The Colosseum restoration work will cost

€25 million (\$26.9 million). Completion is expected next year.

About €2.2 million (\$2.4 million) was spent on the Trevi Fountain restoration work. The Fendi Company paid for it. This is a well-known Italian fashion company. It makes clothes, shoes, leather bags and belts, sunglasses, watches, and [fragrances](#).

The Trevi Fountain (Fontana di Trevi) is probably the world's most famous Baroque fountain. Baroque (pronounced ba-rock) is a style of European architecture, music and art from the 17th and 18th centuries. Baroque buildings have complex sculpture-like designs. They are usually very large and ornate.

The fountain has a long history. In 19 BCE, or just over 2,000 years ago, Roman engineers built a long aqueduct. It brought clean water to the city of Rome from a faraway source, or spring. The [aqueduct](#) is 14 miles (22 kilometers) long. Much of it is underground. The aqueduct took the water to a place where three roads intersected, or crossed. Called the Trivia, it eventually became Trevi Square.



Trevi Fountain, in Rome

Water flowed along the aqueduct for about 400 years. However, it was badly damaged by invaders after the Roman Empire collapsed. In the 1450s the pope, or leader of the Roman Catholic Church, arranged for the aqueduct to be repaired. In 1730 Pope Clement the

Twelfth (1652 – 1740) organized a competition to find a person to design and build a new fountain. A then unknown artist, called Niccolò Salvi (1697 – 1751), won. The work took a long time. It was finally completed in 1762.

The fountain's central arch is decorated with Pope Clement's coat of arms. Years ago most countries, cities, universities and important people in Europe had a coat of arms. These were official symbols. A statue of Neptune is under the arch. He is the Roman god of fresh water, horses, storms, earthquakes, and the sea. Neptune is standing on a chariot shaped like a shell. Two horses are pulling it. One represents rough seas and the other calm waters. Mermen, or figures that are male above the waist and fish below, lead the horses. Two statues, framed by columns, stand on either side. One symbolizes [prosperity](#). The other shows how drinking clean water is good for a person's health.

The Trevi Fountain is a popular place for tourists. The square is often very crowded. A legend says that visitors to Rome should throw a coin over their shoulder into the fountain's pool. If they do this, they will come back to the city again in their lifetimes. As part of the restoration work, over 100 LED lights were installed. These now light up the fountain at night. ■

CAVE LION DISCOVERY

Researchers in Russia have made a surprising discovery. They have managed to unearth two almost perfectly preserved cave lion cubs. The researchers say that the cubs died at least 10,000 years ago and could be much older.

Cave lions were first described about 200 years ago. They are believed to have existed for hundreds of thousands of years. Then, around 10,000 years ago they died out, or became extinct. It is not known why. Cave lion bones and footprints have been found in northern Russia and northern Europe as well as North America.



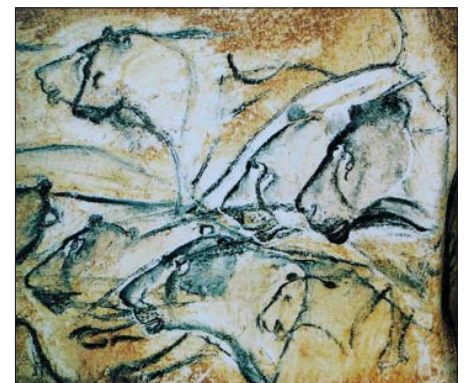
One of the preserved cave lion cubs found in the far east of Russia (Academy of Sciences of Yakutia)

Scientists are unsure how many ancient lion species there were. Cave lions may be related to the lions that live in Africa today or a type of tiger. Some ancient cave paintings in France include drawings of cave lions. They are shown in groups. This might mean that they hunted in packs, or prides. If so, this is similar to what lions do today. Cave lions are thought to have been about ten percent bigger than modern-day African lions.

Cave lions probably preyed on large plant-eating animals. These would have included: horses, deer, reindeer, and bison. The lions may also have attacked young, or juvenile, mammoths. They are called cave lions because most of their bones have been found in caves. However, scientists believe that they probably lived in both grasslands and forests.

About four months ago another team of Russian researchers found a complete cave lion skeleton. These bones are around 61,000 years old. They had been washed out of the frozen ground or permafrost. Northern Russia is very cold. The frozen ground is called permafrost. Normally, permafrost is always frozen in both winter and summer. Yet, in recent years, temperatures in this part of Russia have been getting much warmer. Now, in summer months, it is not unusual for some permafrost to melt.

Permafrost can stop the bodies of animals that died many thousands of years ago from rotting away. Several well-preserved ice age animals or parts of animals have been found in permafrost. Baby mammoths, bison and a young woolly rhinoceros are examples. One of the best known is a young mammoth that has been nicknamed Yuka. This animal was between six and 11 years old when it died 39,000 years ago. Some of its skin, hair, muscles, brain and other organs were well preserved.



Copy of the cave lions in the Chauvet Cave in France

Well-preserved cave lions or their cubs have never been found before. Pictures of the recently discovered cubs show that their skin was covered in a yellow fur. By studying the cubs, scientists will be able to discover what cave lions

looked like, what they ate and possibly even why they died out. For example, the cubs may still have some of their mother's milk in their stomachs. If so, the scientists will be able to work out what the mother was eating.

After all the scientific investigations are complete, the two cubs will probably be displayed in a Russian museum. ■

MOST POWERFUL PEOPLE

Since 2009 an American magazine called *Forbes* has produced a list of "The World's Most Powerful People". This year's list was released on November 4. For the third time in succession, Vladimir Putin, the president of Russia, came on top.

This year there were 73 people on the *Forbes*' list. This is one person for every 100 million people who live on the Earth. The world's current population is about 7.3 billion. Therefore, in previous years, as the population was lower, there were fewer people on the list. For instance, in 2009 it was a list of 67 people. In 2011, there were 70.



Vladimir Putin, president of Russia

Angela Merkel, Germany's leader, or chancellor, is second. Last year she was at number five. The president of the U.S., Barack Obama, fell one place to number three. This is the first time that the American president has not been in the top

two. Pope Francis is the leader of the Roman Catholic Church. He is number four.

At seven, Janet Yellen is the only other woman in the top ten. She is the boss, or chair, of the American Federal Reserve (known as "the Fed"). This is America's central bank. These banks are not like ordinary banks. Central banks work alongside their country's government. They usually control the amount of money in use, and set the interest rate. Central banks also keep a check on all the banks in which people keep their money.

Bill Gates is sixth. He is the world's wealthiest person. In the 1970s Mr. Gates cofounded the Microsoft Company. In 2008 he stepped down as Microsoft's boss. Mr. Gates now runs the charitable organization that he set up with his wife. Called the Bill and Melinda Gates Foundation, it gives large amounts of money to help find cures for diseases such as malaria and HIV/AIDS.

Being powerful can mean many different things. *Forbes* uses certain rules, or criteria, to work out who comes where on its list. One is the number of people a person has power over. For example, Pope Francis is the leader of more than one billion Roman Catholics. Another is how much money a person is responsible for. With politicians, this is the size of their country's economy. For bosses, it is the value of their companies. *Forbes*' also records if people have power in different areas, or fields, and how they use it.

Over the last two years Mr. Putin has angered many other world leaders. He took control of Crimea, which was a part of Ukraine. Russia is also backing armed groups,

or rebel forces, in eastern Ukraine. These rebels are currently fighting against Ukrainian government forces. Recently, Mr. Putin sent Russian warplanes, military equipment and some troops to the war in Syria. There, they are supporting Syria's president, Bashar al-Assad. Other countries such as the U.S., Britain and France are opposed to the Syrian president.

World's Most Powerful People 2015

1. **Vladimir Putin**
President of Russia
2. **Angela Merkel**
Chancellor of Germany
3. **Barack Obama**
President of the USA
4. **Pope Francis**
Leader of the Roman Catholic Church
5. **Xi Jinping**
President of China
6. **Bill Gates**
Boss of Bill & Melinda Gates Foundation
7. **Janet Yellen**
Boss of the Federal Reserve (the Fed)
8. **David Cameron**
Prime minister of the UK
9. **Narendra Modi**
Prime minister of India
10. **Larry Page**
Cofounder and boss of Google (now Alphabet)

Source: *Forbes*

Mr. Putin first became Russia's president 15 years ago. Then, Russian people elected their president every four years. However, the president could serve only two successive four-year terms. After eight years as president, Mr. Putin became prime minister for four years. He was then reelected as president again in 2012.

While Mr. Putin was prime minister, the constitution was changed. This is the set of rules, or laws, by which a country is governed. Russian presidential elections are now held every six years and not four. So a president can serve two six-year terms. If Mr. Putin wins

the next election in 2018, he will be Russia's president until 2024.

Forbes claims that Mr. Putin "is one of the few people in the world who is powerful enough to do what they want". In Russia, he is a very popular leader. Germany is the leading European Union (EU) country. Therefore, Mrs. Merkel "has power" over 500 million people, or the populations of all 28 EU member countries. The U.S. is still the world's greatest economic and military power. However, *Forbes* believes that Mr. Obama's **influence** is declining. This is because less than 50% of Americans now approve of his leadership. Also, Mr. Obama is in his last year as president. ■

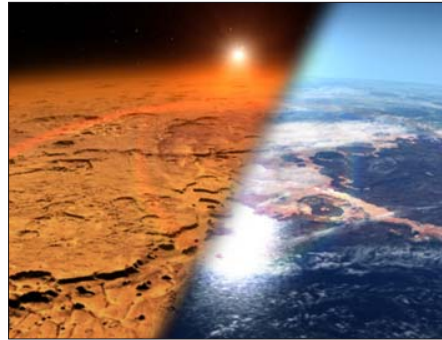
MARS' ATMOSPHERE

The MAVEN unmanned spacecraft began to circle, or orbit, Mars just over 12 months ago. MAVEN is a NASA (National Aeronautics and Space Administration) space mission. NASA scientists made an important announcement on November 5. From information gathered by the spacecraft, they now know what happened to Mars' atmosphere.

MAVEN's orbit is elliptical. At its closest point, the spacecraft is 93 miles (150 kilometers) above Mars' surface. When farthest away, MAVEN is 3,853 miles (6,200 kilometers) from the planet.

Mars is often called the "Red Planet". Together with Mercury, Venus and the Earth, Mars is one of the Solar System's four rocky planets. (The others are mostly made of gases.) The Red Planet is Earth-like but much smaller. It's known that Mars was very different about four billion years ago. Then, it had flowing water, rivers, lakes and

possibly a large ocean. It must have had thick clouds and an atmosphere with large amounts of carbon dioxide (CO₂).



Artist's impression of Mars today and what the planet may have looked like billions of years ago (NASA)

Today, Mars is dry, dusty and very cold. Nearly all its atmosphere has gone. The air pressure on Mars is about one percent of what it is on the Earth. Therefore any water on the planet's surface would immediately freeze or boil away. Most life would not exist on the Earth without CO₂. The question that NASA scientists wanted MAVEN to answer was "what happened to Mars' atmosphere and its CO₂?"

The information collected by the spacecraft shows that Mars' atmosphere has been "stripped", or eroded away. This was done by the solar wind. The scientists say atmosphere erosion probably happened over a very long period.

The Sun's outer atmosphere is called the corona. It produces a steady outflow of charged particles. These fly through space in all directions. This is the solar wind. The particles travel at 248 miles (400 kilometers) per second.

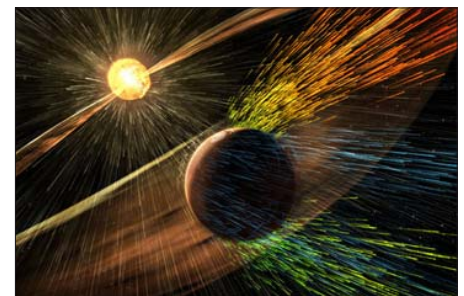
The Earth's magnetic field protects our planet and its atmosphere from the solar wind. However, occasionally, the solar particles reach the upper atmosphere near the Poles. Here, they can "excite" gases in the air. This is what creates the Northern

Lights or the *Aurora Borealis* and (in the south) the *Aurora Australis*. These are also known as auroras.

Mars has a very weak and scattered magnetic field. Therefore, unlike the Earth, its atmosphere is not protected. NASA scientists calculate that about 0.25 pounds (100 grams) of Mars' atmosphere is stripped away by the solar wind every second. This seems like a small amount. Yet it has been happening throughout Mars' 4.5 billion year history.

The surface of the Sun is constantly changing, as nuclear-like reactions take place. Hot material rises, cools and sinks down again. These reactions produce events that are known as "space weather". They include solar flares, coronal mass ejections (CMEs) and solar storms.

Solar flares release large amounts of energy. They have the force of tens of thousands of atomic bombs. CMEs are severe, or very powerful, solar flares. They can send billions of tons of magnetically charged particles, or atoms, into space. This is called a solar storm.



Artist's impression of a solar storm hitting Mars (NASA)

About eight months ago, MAVEN recorded a solar storm hitting Mars. Then, the atmosphere loss was between ten and 20 times higher. Scientists believe that the Sun's "space weather" was much more violent soon after the Solar System formed. Therefore most of Mars' atmosphere was probably lost billions of years ago. ■

FLOWERING DESERT

Many local people and tourists have been traveling to the Atacama Desert. There, they have been looking at an unusual [phenomenon](#). Called a flowering desert, it normally occurs once every five to seven years. Yet this year, the Atacama has “flowered” twice. This has never been known to happen before.

The Atacama Desert is a high plateau. It is between two mountain ranges. The Andes Mountains are to the west and the Chilean Coast Range to the east. These mountain ranges run parallel to each other. This creates a “double rain shadow”. A rain shadow is a dry area on one side of a mountain range. The shadow is on the opposite side to the one facing oncoming, or [prevailing](#), winds. Forced to rise by the mountains, moisture in the air precipitates, or becomes rain. This immediately falls. The air that then passes to the other side of the mountain is very dry. It is therefore unlikely to produce any rain.



Atacama Desert, in Chile (Valerio Pillar)

Most of the Atacama Desert is in Chile, although its northern boundary is inside Peru. The desert is one of the world’s driest places. On average there is about 0.6 inches (15 millimeters) of rain per year. However, in some areas of the Atacama there has been no rain for over four years. It is not hot like the Sahara

Desert, in Africa. This is because most of the [plateau](#) is around 13,100 feet (4,000 meters) above sea level. Therefore the Atacama is what’s known as a cold desert.

Many of the biggest telescopes (or astronomical observatories) in the world are in the Atacama Desert. The Earth’s most powerful telescope is currently being built on the top of a Chilean Coast Range mountain. Called the European Extremely Large Telescope (E-ELT), it will take ten years to complete. The Atacama Desert is one of the world’s best places for telescopes. This is because it is high, there is very little moisture in the air, and almost every day and night is cloudless.

The flowering desert occurs when there has been far more rainfall than usual. It normally happens between the months of September and November. The flowering desert is connected with what’s called an El Niño, or El Niño event. It’s known that sea temperatures in the Pacific Ocean off the northeast coast of South America can change dramatically. When this part of the Pacific starts to get much warmer, it is usually a sign of an El Niño. Nobody knows what causes these big sea temperature changes in this part of the world. On average they occur every five years. Scientists say that a strong El Niño is happening now.

An El Niño usually affects the weather on both sides of the Pacific Ocean and in other parts of the world. During an El Niño there is much more rain in the northern parts of South America, including the Atacama Desert.

El Niño means “the boy” in Spanish. To Spanish speakers the words are used to describe the baby Jesus. The weather pattern was given this nickname many years ago by

people who fished in the Pacific off the coasts of Peru and Ecuador. They noticed changes when the seawater became warmer. There were fewer fish in the sea and much more rain on land. They called it El Niño, as the event seemed to begin just before December. In the Christian faith, this is when the baby Jesus came into the world.



Atacama flowering desert

If there is enough rain, hundreds of different plants will grow in the Atacama. In most years, the seeds remain in the ground. They do not germinate, or begin to grow, as it is far too dry. Yet, when the rains arrive, the plants suddenly come to life. The most dominant is called the malva (or mallow). This small plant has a bright pink flower. So during a flowering desert, it looks as if a pink carpet covers the ground. ■

AFRICA’S VULTURES

BirdLife International is a partnership of about 120 organizations. These organizations, which are based in different countries, work together. They monitor numbers and try to protect bird species that are threatened. Normally, these threats are caused by human activity. Recently, BirdLife International has produced a report on African vultures.

Vultures are [scavengers](#). They feed on dead animal bodies, or [carcasses](#). The birds play an

important role in the natural world. Vultures' digestive systems are very acidic. This means that any poisonous spores or bacteria they swallow are destroyed. Vultures can therefore eat rotting meat and not get sick. If dead animals are left to rot, they can spread diseases such as [anthrax](#). Animal carcasses can pollute rivers and streams. Vultures rarely kill healthy animals. However, the birds will attack sick or wounded creatures.



White-headed vulture

There are two groups of vultures. They are often called New World vultures and Old World vultures. New World vultures live in North and South America. They include the Californian and Andean condor. These large birds have a wingspan of around ten feet (three meters). Old World vultures are found in Europe, Asia and Africa. Australia and Antarctica are therefore the only continents where there are no vultures.

There are three Asian vulture species. They mostly live in Pakistan, India and Nepal. All are in danger of becoming extinct. In the 1990s large numbers of vultures started dying. At first, nobody knew why. Scientists studying the problem eventually discovered that a drug called diclofenac was the cause.

Farmers in India, Pakistan and Nepal were giving this drug to their sick animals. It's a type of painkiller. The drug also helps animals to

recover and live longer. Once animals are given this drug, it stays inside them. In this part of the world it is not unusual for farmers to leave dead animals out in the open. They do this deliberately. The farmers rely on vultures to get rid of these carcasses. However, diclofenac is poisonous to vultures. It affects their kidneys. Vultures that eat dead animals that contain this drug die within one or two days. Many countries have now banned the use of diclofenac.

There are 11 types of vulture in Africa. BirdLife International says that seven are now "critically endangered". The hooded vulture and the white-headed vulture are two of them. The threats to African vultures are different to those in Asia. In Africa lions will attack farm animals. Some farmers poison dead animals in revenge. The lions may then die if they eat the dead animal. Vultures will feed on these carcasses and on any dead lions. So the poison also kills them.



Hooded vultures (Gabriel Buissart)

Poaching is a problem in many parts of Africa. This is unlawfully killing animals for their body parts, such as elephants' tusks. Vultures will circle high in the air above a dead or dying animal. Armed guards, who try to stop the illegal animal killings, watch out for vultures circling in the sky. This helps them to track the poachers. For this reason the poachers dislike vultures.

After shooting an animal and removing its tusks or horns, poachers often poison the carcass. They do this to kill the vultures.

In some parts of Africa body parts from vultures are used in traditional medicines. Vultures flying into, or colliding with, power lines, is another problem. The BirdLife report highlights all these dangers. If nothing is done to protect the birds, the report says, Africa's vultures could all die out within the next 50 to 100 years. ■

TURKEY'S SECOND ELECTION

An election for Turkey's parliament was held on November 1. This was the country's second election within five months. The last one took place in June. Then, the result was what's known as a "hung parliament". This is when no party has a majority, or more than half of the seats.

Turkey's parliament is in Ankara, the country's capital city. Called the Grand National Assembly of Turkey, it has 550 seats. Therefore, to win a majority a party must get at least 276 seats. In Turkey there are four main political parties: the Justice and Development Party (AKP), the Republican People's Party (CHP), the Peoples' Democratic Party (HDP), and the Nationalist Movement Party (MHP). Elections for Turkey's parliament normally take place every four years. Usually, the prime minister is the party leader with the most seats.

Recep Tayyip Erdoğan set up, or founded, the AKP 14 years ago. In the 2003 election the AKP got more seats than any other party. Mr. Erdoğan became the country's prime minister. The AKP won the next two elections. In the 2011 election about

50% of those who took part voted for the AKP. For ten years, Mr. Erdoğan was a very popular and successful leader.



Recep Tayyip Erdoğan,
Turkey's president

Ahmet Davutoğlu,
Turkey's prime minister

Most people in Turkey are Muslims. Traditionally Turkey is a secular country. This means that politics and religion are kept separate. In a secular state, the government should not support, or oppose, any type of religion. All citizens must be treated equally whatever their religious beliefs.

About 15 million Kurds live in Turkey. This is roughly 20% of the country's population. Kurdish people also live in parts of Iran, Iraq and Syria. In the past a militant Kurdish group in Turkey, called the PKK, fought against Turkish government forces. This war lasted for many years. Thousands died. Nowadays, many Kurds in Turkey vote for the HDP. Most disagree with the militant group's aims and methods.

In recent years, more people have begun to criticize Mr. Erdoğan. They accuse him of trying to introduce religious laws in a secular country. These people claim that Mr. Erdoğan has become too [autocratic](#). Last year, he and several other AKP members were accused of corruption, or dishonesty. Mr. Erdoğan insists that this is untrue.

Turkey also has a president. Traditionally, the president is the country's head of state, but he has few powers. It is the prime minister who

runs the country. The most recent presidential election was held last year. Mr. Erdoğan won.

In Turkey the prime minister cannot be elected for more than three four-year terms. Therefore Mr. Erdoğan would have had to step down at the June election. This is why he decided to stand in the presidential election. Just before this election, the AKP's Ahmet Davutoğlu took over as prime minister.

It's known that Mr. Erdoğan would like to change Turkey's constitution. These are the rules by which a country is governed. Mr. Erdoğan wants the president to have greater powers and the prime minister fewer. This would be similar to Russia and France.



Grand National Assembly of Turkey

At the June election the AKP got 258 seats. This was more than any other party. Yet it was too few for a majority. With 80 seats, the HDP did well. To have a majority the AKP would have to work with one of the other parties. Alternatively, if the other three parties agreed to work together, they could form a new government. However, after several months no agreements were made. As president, Mr. Erdoğan declared that another election would have to be held.

A few weeks before the election, two people exploded bombs at a peace [rally](#) in Ankara. The suicide bombers killed over 100 people and injured hundreds of others. This was Turkey's worst, or most deadly, ter-

rorist attack. Most people at the rally were Kurds. Recently, the fighting between Turkish forces and the militant Kurdish group has restarted. The peace rally was organized to protest against this growing conflict. Many people were surprised by the election result. The AKP won easily. It got 317 seats, or 59 more than five months ago. Mr. Davutoğlu will now continue to be Turkey's prime minister. The result means that Mr. Erdoğan may get the greater powers he wants.

Some think the AKP did well because many people are worried about security in the country. Others complained about what happened to several media companies. AKP officials forced several to close. These news companies often criticized Mr. Erdoğan and his party. AKP officials said that the companies had to shut because they had not paid the correct amount of tax. ■

RENEWABLE ENERGY IN AUSTRIA

Austria is divided into nine states. The largest one, in the northeast of the country, is called Lower Austria. It is home to 1.65 million people. Recently, the premier, or top official, in the state made an important announcement. He said that 100% of the electricity used in the state is now made, or generated, from renewable sources.

Currently, many countries make most of their electricity by burning fossil fuels: oil, natural gas and coal. However, burning these fuels creates extra carbon dioxide (CO₂). Most scientists believe that this extra CO₂ in the atmosphere has been acting like a greenhouse. They are sure that it is causing average world temperatures to rise, and the

climate to change in certain parts of the world.

For many years the United Nations (U.N.) has been trying to get all countries to reduce the amount of CO₂ they produce. Many nations are now trying to produce more electricity from renewable sources, or “renewables”. Electric power made from wind turbines, solar panels, hydroelectric dams, and the movement of waves and tides are examples of renewable energy. Power made from these sources is often called “clean” energy. This is because it does not produce extra CO₂. However, for many countries, burning fossil fuels is still the least expensive way of making electricity.

Geothermal heat is another source of clean energy. This heat is in magma, or hot liquid rock, which is deep underground. In some places there are large amounts of water

in the rocks just above the magma. The magma’s heat turns the water to steam. This can be brought to the surface by drilling down into the rocks. The steam is then used to operate turbines, which generate electricity.

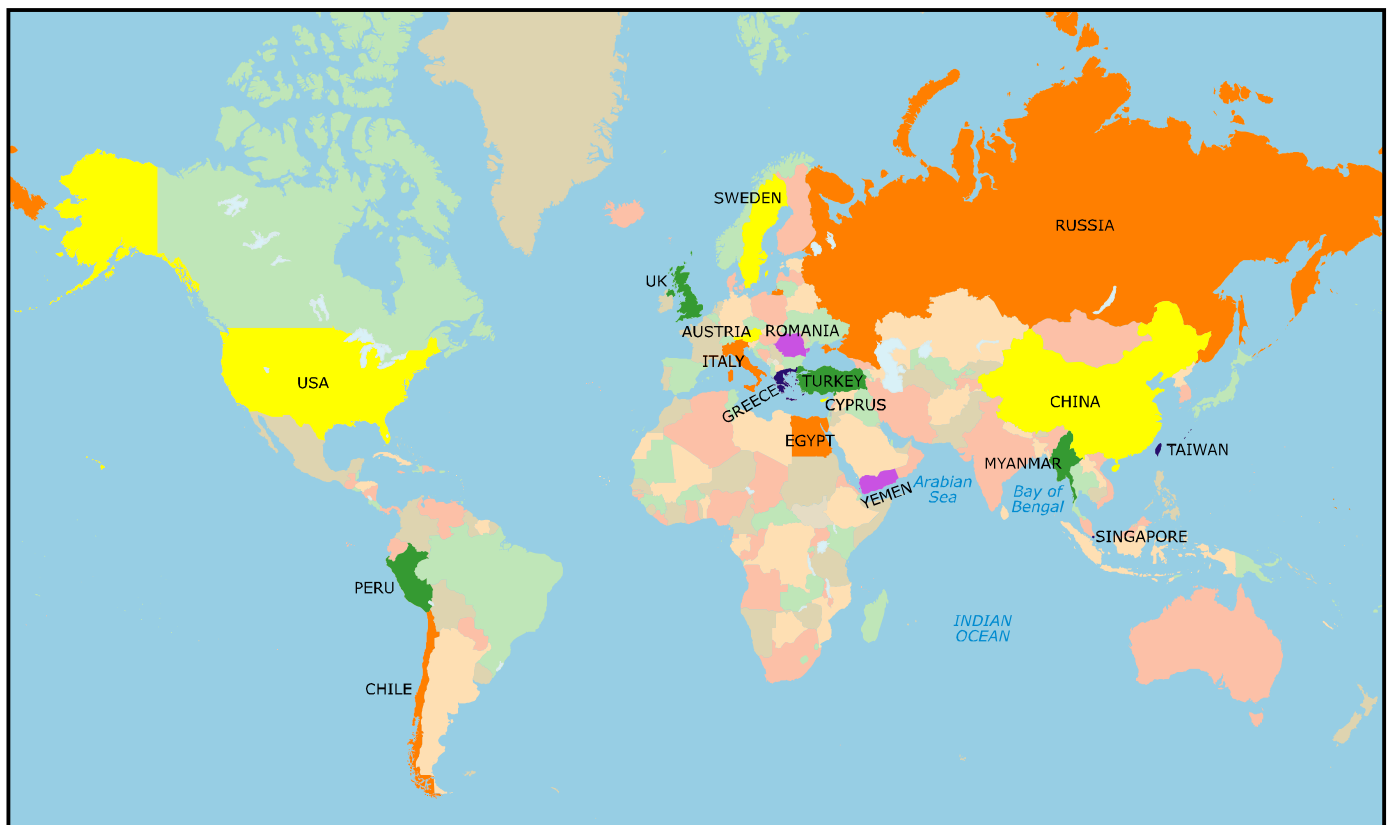
Biomass is another renewable. Biomass fuels come from organic material. These are mainly old or unwanted wood, dead plants and unused parts of food crops. When burned, this material produces heat. This is then used to rotate turbines. Nuclear power stations also produce clean energy. They do not produce any extra CO₂. However, nuclear power plants create nuclear waste. This is radioactive. It is therefore dangerous and difficult to store.

Some people worry about nuclear power. In the past there have been a few accidents and radiation leaks at nuclear power stations. Chernobyl

and Fukushima are the best known. Chernobyl is in Ukraine. One of the power plant’s reactors exploded in 1986. Then, Ukraine was part of the Russian-led Soviet Union. Fukushima is on the coast in Japan. Four years ago a giant wave, or tsunami, damaged three reactors at the Fukushima nuclear power station. A powerful undersea earthquake created, or triggered, the tsunami.

The Danube River flows through Lower Austria. It is Europe’s second-longest river. (The longest is the Volga River, in Russia.) Several hydroelectric dams have been built on the Danube in Lower Austria. The state’s premier says that 63% of Lower Austria’s electricity now comes from hydroelectric power. Wind turbines (26%), biomass (9%) and solar power (2%) make the remainder.

Many years ago a nuclear power station was built in Lower Austria.



This map shows countries to which news stories refer in this issue. Visit www.newsademic.com for more detailed world maps.

It has never been used. In 1978 a referendum was held in Austria about using nuclear power. This is a vote in which all adults can take part. Most people voted “no” to nuclear power. Therefore the power station was never switched on. Since then, no other electricity-producing nuclear power plants have been built in the country.



Hydroelectric dam and power station on the Danube River in Austria (ANDRITZ)

About 75% of Austria's total electricity is generated from renewable sources. This is much higher than most other countries. Austria's remaining 25% comes from fossil fuels. ■

“COLECTIV REVOLUTION”

On November 5, Victor Ponta, Romania's prime minister, resigned. He made his decision after street protests were held in the country's largest cities. The biggest demonstrations took place in the capital, Bucharest. The protests followed a fire that killed over 50 people and badly injured many others. The blaze was in a Bucharest nightclub called the Colectiv.

Romania is a former communist country. After the end of the Second World War (1939 – 1945) the country was controlled by the Russian-led Soviet Union. For

many years Nicolae Ceausescu ran Romania as a dictator. Like many other eastern European countries, Romania became an independent nation in 1989. This was when the Soviet Union started to break up. After large street protests, Ceausescu and his wife were arrested. A few days later a court declared that they were guilty of corruption and **genocide**. Both were sentenced to death and shot by a firing squad.

Now, Romania has an elected prime minister and president. The country has a semi-presidential system of government. The prime minister is usually the leader of the party with most seats in the country's parliament. Both prime minister and president have important powers. The prime minister runs the country. Yet the president can make decisions about security and dealings with other nations.

Mr. Ponta became Romania's prime minister in 2012. He led a group, or coalition, of four political parties. Before he became a politician, Mr. Ponta was a lawyer. The most recent presidential election was held 12 months ago. Mr. Ponta was one of the leading candidates. The result surprised many people. Klaus Iohannis won. Before he entered politics, Mr. Iohannis was a physics teacher. In recent months Mr. Ponta has been accused of corruption, or dishonesty. He is **alleged** not to have paid the correct amount of tax when he was a lawyer. Mr. Iohannis has frequently said that Mr. Ponta should resign because of these accusations.

The fire in the Colectiv nightclub broke out in the evening on October 30. The building was full. People had gone to the club to see a concert by a well-known Romanian music group. As part of their show, members of the group set off some

pyrotechnics, or fireworks. Part of the roof caught fire. The flames then spread quickly.

The nightclub was overcrowded. The building, which used to be a factory, had no emergency exits. There was only one entrance. Burning foam in the ceiling created poisonous, or toxic, fumes. Many died after inhaling these fumes. Some people with very serious burns were flown to other countries for special medical care. Hospitals in Israel, the Netherlands, Belgium, Austria, Britain, Norway, and Germany, all treated people who were badly injured.



Demonstration in central Bucharest (Agerpres)

Most people in Romania were shocked by the accident. Over the next few days, many became angry. Local politicians had given the nightclub permission to hold events even though the building was unsafe. Large street protests were organized. Thousands took part. Many were younger people. They declared that they were protesting about political corruption. Some held banners that read “Corruption Kills”. News reporters in Romania called the protests the “Colectiv Revolution”. The owners of the nightclub and some local officials were arrested.

The biggest demonstrations were in the central square in Bucharest. Many said that the prime minister and his government should resign.

Some waved large Romanian flags with holes in them. These became a symbol of the 1989 protests, which led to Ceausescu's downfall. Then, bullets made the holes.

Mr. Iohannis spoke with the protesters. He said that the country's elected politicians could not ignore what was happening. After Mr. Ponta resigned, the president said that he would appoint an interim, or temporary, prime minister. Elections for new political leaders will then be organized. ■

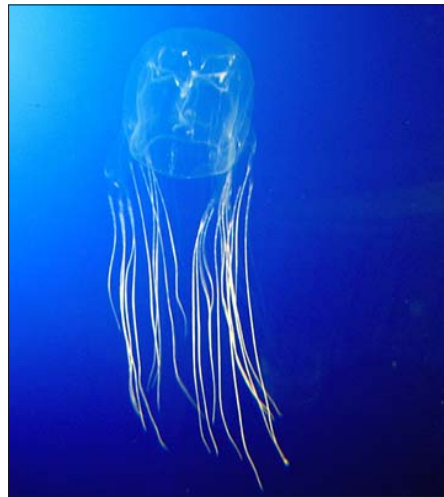
SWIMMING STUDY

Jellyfish and lampreys live in the sea. Lampreys are eel-like creatures. These two marine creatures look very different. Yet they are both excellent swimmers. Researchers in the U.S. have discovered that jellyfish and lampreys have an unusual way of moving through the water. This is the first time that their unique swimming methods have been recorded.

It's known that jellyfish, or jellies, have lived on the Earth for at least 500 million years. There are more than 1,000 jellyfish species. They are found in all the world's oceans. Some live near the surface. Others prefer deeper waters. Jellyfish are not fish. All fish are vertebrates, which means that they have a backbone. Jellyfish do not. A jellyfish is over 90% water.

Most jellyfish have an umbrella-shaped body (known as a bell), and long tentacles. The bodies of the smallest jellyfish are about 0.04 inches (one millimeter) across. The biggest ones can be 6.6 feet (two meters) wide. A jellyfish uses its tentacles to catch its food. Most jellies are harmless to humans, but a few are highly poisonous. The world's most

deadly jellyfish is a type of box jelly called *Chironex fleckeri*. Usually called the sea wasp, it lives in seas between Vietnam, the Philippines and northern Australia. Lampreys are a type of fish. Like eels, they have long bodies and no scales. The biggest ones are about 3.3 feet (one meter) long. Lampreys do not have jaws. Some species suck other fishes' blood. Others filter, or strain, food from the water. Lampreys live near coasts or in freshwater rivers.



Sea wasp (*Avispa marina*)

Humans and most other land animals walk or run by pushing against the ground. Birds push or flap their wings against the air. Marine animals that swim use their fins, tails or tentacles to push against the water. This "pushing movement" creates an area of high pressure between the animal and the ground, air or sea. There is an immediate forward (or backward) movement. Yet this does not last for long. Therefore the animal has to keep "pushing".

The American researchers suspected that jellyfish and lampreys swim in a different way. They decided to investigate. The researchers fitted lasers and cameras around a large water tank. They then tipped millions of tiny, silver-coated glass

beads into the water. These beads are only ten micrometers (one millionth of a meter) across. As the jellyfish and lampreys swam in the tank, the beads highlighted how the water moved around them. The lasers and cameras recorded this movement.

The beads showed that jellyfish and lampreys don't push against the water. Instead, the way in which they bend their bodies creates areas of low pressure. The surrounding water then flows, or moves, into these areas. This water motion moves the jellyfish and lampreys forward. So instead of "pushing" through the water, jellyfish and lampreys are "pulled" or "sucked" through it. The researchers worked out that this way of swimming uses far less energy. This probably explains why jellyfish and lampreys are such good swimmers.

Marine engineers are expected to be interested in the researchers' work. It may be possible to design underwater robots to swim in a similar way. If so, the robots could move through the water very quickly but use less power. Copying designs found in the natural world like this is known as "biomimicry" or "bioinspiration". ■

RHODES COLOSSUS

A small team of people are planning to recreate the Colossus of Rhodes. This large statue was one of the Seven Wonders of the Ancient World. The original statue no longer exists. An earthquake destroyed it around 2,250 years ago.

Rhodes is an island in the Mediterranean Sea. Then, as now, it was a part of Greece. In 305 BCE the ruler of Cyprus attacked Rhodes. Cyprus is a larger Mediterranean island.

The people of Rhodes managed to defeat the invaders from Cyprus. To celebrate their victory, they decided to build a large statue.

The statue was a large figure of a man. He was the Greek god Helios, who was a symbol of the Sun. The statue is thought to have been close to the harbor. It was made with an iron frame and blocks of stone. Brass plates, or panels, were used for the statue's skin, or outer covering. It took 12 years to complete. Known as the Colossus of Rhodes, the finished statue was over 98 feet (30 meters) tall.

The Colossus of Rhodes stood for only 56 years. In 226 BCE an earthquake caused it to fall down. Soon afterwards an Egyptian king said that he would rebuild the statue. However, the people of Rhodes declined the king's offer. They suspected that the Sun god Helios had deliberately created the earthquake. This, they thought, was because the statue had angered the god.



An artist's impression of the 'new' Colossus of Rhodes

The broken statue lay on the ground for over 800 years. Arabs captured the island of Rhodes in the 7th century CE. They sold off the fallen statue's brass plates. It's said that it took 900 camels to carry all the metal away. In later years some people suggested that the statue's feet stood on the harbor wall either side of its entrance. This meant that ships had to pass between the colos-

us' legs to enter and leave the harbor. However, historians think that this is unlikely. No parts of the statue remain. So nobody knows where the statue stood.

The new Colossus of Rhodes (if it is built) will be different from the ancient one. At 400 feet (122 meters), it will be about four times as high. The statue will stand astride the harbor entrance and be built to withstand earthquakes. An artist's impression shows one of the statue's hands holding a bowl-like item above its head. This is a lighthouse. Ships 35 miles (56 kilometers) away should be able to see its light.

The statue will be hollow. The plans include a cultural center, museum and library inside the statue. As fitting for a Sun god, the statue is to be covered in gold-colored solar panels. This means that it will generate all the electric power that the new statue complex needs. The team planning the statue claim that the work could be completed in four years. The cost is expected to be €260 million (\$278 million).

BONFIRE NIGHT

In Britain, November 5, is known by several names. To some it is Guy Fawkes Day or Guy Fawkes Night. Others call it Bonfire Night or Firework Night. In the evening, on this date, **effigies** are put on bonfires and burned. Fireworks light up the night sky. This annual event commemorates an incident that happened in 1605, or just over 400 years ago.

In 1603, Queen Elizabeth the First of England died. She had no children. The leaders of England then asked King James the Sixth (1566 – 1625) of Scotland to be king of

England and Scotland. He accepted. This arrangement is known as "the Union of the Crowns". King James was a distant relative of Queen Elizabeth the First. In England he was called King James the First.



Procession in Lewes on 5th November

During the 1500s there were many arguments between Catholics and Protestants in some European countries. Both follow the Christian faith. However, they have several differences. For example, Protestants believe that all God's teachings are written in the Bible. They call it "the Word of God". Catholics believe that their traditions and beliefs are just as important as the Bible. For example, Catholics pray to saints and believe in purgatory. Yet neither is mentioned in the Bible. Catholics say that purgatory is the place to where the souls of sinners go after they die.

Nowadays, Catholics and Protestants respect each other. Yet hundreds of years ago many were enemies. Queen Elizabeth and King James ruled England as Protestants. During their reigns there were a number of plots to replace them with Catholic monarchs. All failed. Guy Fawkes was a member of a group of English Catholics. They planned to blow up King James and many other senior people, as they met in the House of Lords. This is part of Britain's parliament. This group's plan became known as the Gunpowder Plot.

Robert Catesby was the leader of the group. Fawkes was in charge of the explosives. Members of the group secretly took barrels of gunpowder to a room in the cellar underneath the House of Lords. Fawkes stayed in the cellar to guard the barrels. Then, the authorities received an unsigned letter. It warned them what was about to happen.

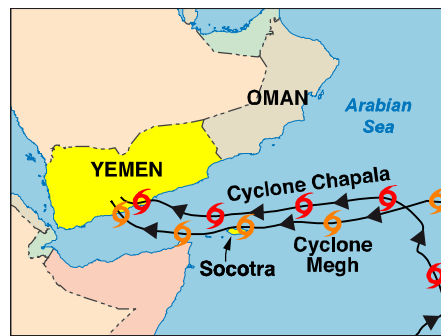
On November 5, 1605 rooms in the cellar were searched. The gunpowder was found. Fawkes was arrested and tortured. Other members of the group were caught. A few months later they were put on trial. All were found guilty of treason and executed. The following year the parliament made a new rule. It stated that November 5, must be commemorated every year. Many people did this by ringing church bells and lighting bonfires.

The tradition continued. People used to set up bonfires in their own gardens. Nowadays, towns and villages organize larger public events. Usually there is a large fire and firework display. A figure known as a guy (meaning Guy Fawkes) is made out of paper stuffed into old clothes. It is placed on top of the fire and burned.

The biggest November 5, event takes place in a town called Lewes. There, 17 burning crosses are carried through the town. They commemorate 17 Protestant men from Lewes who were burned at the stake. This happened when Mary the First (1553 – 1558) was England's monarch. She was a Catholic queen. In Lewes, flaming barrels of tar are rolled through the streets. Traditionally, effigies of Guy Fawkes and Pope Paul the Fifth are burned on a huge bonfire. Pope Paul the Fifth was the leader of the Roman Catholic Church in 1605. ■

ARABIAN SEA CYCLONES

Socotra is an island in part of the Indian Ocean called the Arabian Sea. The island is part of Yemen. Socotra is 217 miles (350 kilometers) off the Yemeni coast. On November 1, a powerful cyclone passed close to the island. Then, one week later, another cyclone struck the island. Weather experts were surprised. The last cyclone to hit Socotra was nearly 100 years ago. Back-to-back cyclones have never been recorded before.



Cyclones are circular storms that bring strong winds and heavy rainfall. Similar storms in the Atlantic and eastern Pacific Oceans are called hurricanes. In South East Asian countries, these devastating storms are known as typhoons. Cyclones are those that develop in the Indian Ocean, western Pacific, and around the northern Australian coast.

Most cyclones in the Indian Ocean form on the eastern side of India, or in the Bay of Bengal. If one of these storms forms on India's western side, it usually moves north towards Oman. After cyclones form they are given a name. The first storm to strike Socotra was called Cyclone Chapala. The second was named Cyclone Megh. After these powerful storms hit land, or make landfall, their winds gradually weaken. The storms then fade away. Both Chapala and Megh eventually made

landfall on Yemen's southern coast. The wind speeds of both were over 143 miles (230 kilometers) per hour.

Each of the storms dropped 16 inches (41 centimeters) of rain on Socotra. This is far more rainfall than the island normally gets in one year. The heavy rain caused mudslides and flash floods. When floodwaters appear very suddenly it is often called flash flooding. This can happen when the ground is no longer able to absorb any more water. Heavy rain then flows over the surface of the land and into watercourses, which fill up quickly. When this happens "walls" of water can rush down the river valleys.

Socotra is 82 miles (132 kilometers) long and 31 miles (50 kilometers) wide. It is home to 44,000 people. The island is very remote. Many plants that grow on Socotra are not found anywhere else in the world. Some people have described the island as "the most alien-looking place on the Earth". Socotra has several types of tree that are unique to the island. They do not grow anywhere else. Examples are the cucumber tree and the dragon blood tree.



Dragon blood tree on Socotra

The dragon blood tree is probably the island's most famous plant. It looks unusual. The tree's crown or branches are densely packed. They form a shape that looks like an upright, open umbrella. The tree's name comes from its sap, which is a dark red color. Rain from the storms

washed away a lot of soil. The powerful winds uprooted many of the island's trees.

The two cyclones destroyed or badly damaged hundreds of homes. After the storms passed, planes from Oman, Kuwait, the United Arab Emirates (UAE), and Saudi Arabia arrived. They brought food, water, tents, and medicines. ■

Xi – Ma MEETING

On November 7, a historic event took place in Singapore. China's president, Xi Jinping, and Ma Ying-jeou, the president of Taiwan, met for talks. This was the first time that the leaders of the two countries had met since 1949. Then, the country split in two after the Chinese Civil War.



China's Xi Jinping (L) and Taiwan's Ma Ying-jeou (R)

The civil war was fought between the Communists and the Nationalists, or Kuomintang (KMT). Mao Zedong led the Communists. Chiang Kai-shek was the KMT's leader. After many years of fighting the Communists controlled most of the country. In 1949 the KMT retreated to the island of Taiwan.

Both the Communists and the KMT claimed to be the official government of China. Even today the official names of Taiwan and China are very similar. China is the People's Republic of China (PRC) and Taiwan is the Republic of China (ROC). To avoid

confusion, many people call the PRC "mainland China".

After 1949 the KMT ran Taiwan for 50 years. The country's first fully democratic elections were held in 1996. These were between Taiwan's two main political parties, the KMT and the Democratic Progressive Party (DPP).

China is a communist country. As a one party state, it does not democratically elect its leaders. China was not pleased about the elections in Taiwan. Just before they were held, it fired several test missiles into the sea close to Taiwan. Then, some people thought that China was planning an invasion. Chinese leaders insist that, one day, Taiwan will be reunited with China. They refuse to acknowledge that Taiwan is a separate country.

Over time, the two main parties in Taiwan have come to represent different attitudes to China. The KMT believes that Taiwan and China should work more closely together. Yet the DPP is suspicious of China. Its supporters want Taiwan to remain a separate country.

Mr. Ma is a member of the KMT. He was elected as Taiwan's president in 2008. Before the election, Mr. Ma said that he planned to improve Taiwan's relationship with China. Yet he insisted that Taiwan would never reunite with an undemocratic China. Mr. Ma believes that the two countries should work closely with each other. In 2012, Mr. Ma was reelected as president for a further four years.

Soon after Mr. Ma became president, Taiwan signed a trade agreement with China. This agreement meant that ships and aircraft could travel directly between the two countries for the first time. Postal services were improved. Students

from Taiwan were allowed to study in Chinese universities. Chinese students could go to universities in Taiwan. Many Taiwanese companies opened factories in China. In recent years thousands of Chinese tourists have visited Taiwan.

Taiwan's next presidential election is in January 2016. Presidents in Taiwan can serve for only two successive four-year terms. Mr. Ma is coming to the end of his second term. The DPP's candidate for the election is Tsai Ing-wen. She is expected to win. China would prefer Eric Chu, the KMT's candidate, to be Taiwan's next president. Many people suspect that this is why the Singapore meeting between Mr. Xi and Mr. Ma was arranged.

The meeting took place in one of Singapore's large hotels. The two men shook hands in front of hundreds of news photographers. Their private talks lasted just over an hour. The two presidents called each other "mister". They met again in the evening for dinner. In the restaurant they used a round table. This was so neither sat in a more important place. At the end of the meal the two leaders even agreed to share the bill. ■

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Editor: Rebecca Watson

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Acknowledgements:

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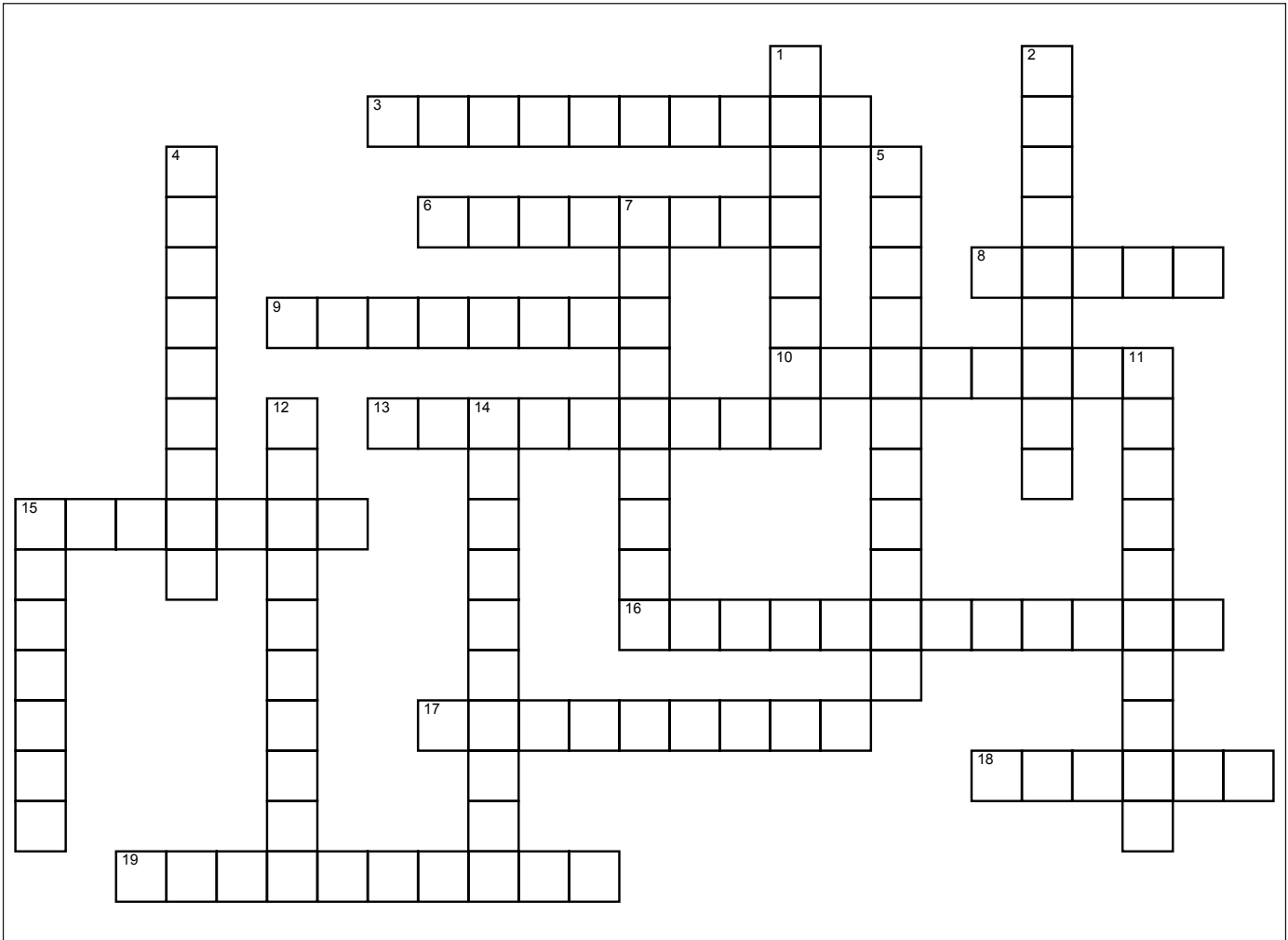
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Issue 262

Glossary Puzzle

INSTRUCTIONS: ① Complete the crossword. The answers are highlighted in orange in the news stories. There are 25 words highlighted and you need 20 of them to complete the crossword. ② Once you have solved the crossword go to the word search on the next page ➡



Across

- 3 Noun** An unusual or remarkable event or occurrence
6 Noun A structure built to carry water over a long distance, either by a tunnel or more usually by a bridge
8 Noun A public meeting of a large group of people
9 Noun Plural Machines with blades through which a liquid, gas or wind flows to produce power
10 Noun Plural Models or other objects that are made to look like people
13 Verb Identified the cause of an illness after making an examination
15 Verb Claimed to be true, even though it has not been proved
16 Noun Plural Places to which people are going
17 Noun Plural Dead bodies of animals
18 Adjective Unable to support life
19 Noun Plural Perfumes or pleasant or sweet smells

Down

- 1 Verb** Deliberately hurt a person in a very cruel way, especially as a punishment or in order to make them say or do something
2 Noun An item that goes, or works, with another
4 Verb Protested by refusing to deal with a particular person or business, or to take part in something
5 Noun Wooden planks and metal poles, used while building, repairing, or cleaning tall buildings
7 Verb Become absorbed in a liquid solution
11 Noun Plural Animals or insects that eat decaying organic matter, including dead animals that have already been killed
12 Adjective Most frequent or common
14 Adjective Describes someone who runs a country or company by taking all the decisions without consulting others
15 Noun A highly infectious animal disease (especially cattle and sheep) that can be transmitted to people

Issue 262

GLOSSARY PUZZLE *CONTINUED*

INSTRUCTIONS: ③ Find 19 of the 20 crossword answers in the word search. Words can go vertically, horizontally, diagonally and back to front. ④ After finding the 19 words write down the 20th (or missing) word under the puzzle.

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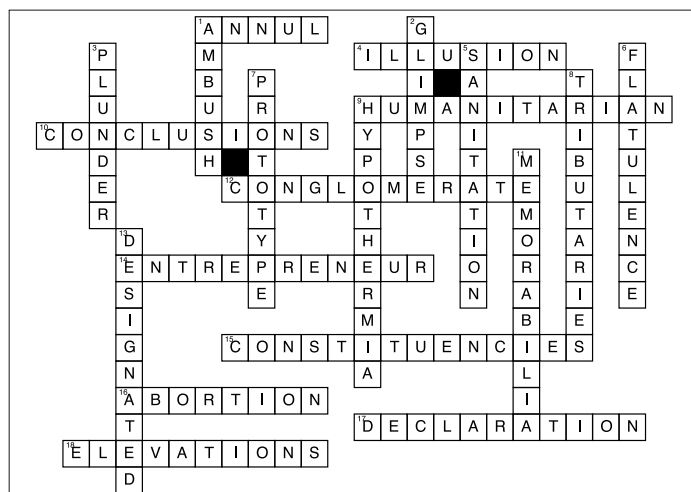
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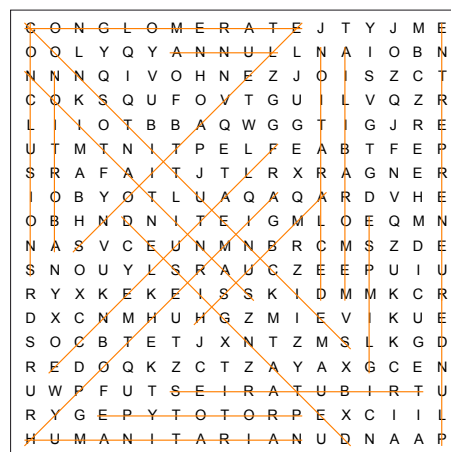
If you wish to earn additional Demics please email the missing word answer to: subscriptions@newsademic.com Puzzle entries need to be submitted by 10pm on November 25, 2015 (GMT/UTC).*

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MISSING WORD ANSWER =



ISSUE 261 ANSWERS



I L L U S I O N