NATIONAL GEOGRAPHIC

UNCOMMON HISTORY

National Geographic Extraordinary Stories of Ordinary Events, Objects, and Inventions

Breakfast Cereal

THE TOP FOUR MANUFACTURERS ACCOUNT FOR MORE THAN 80% OF INDUSTRY REVENUE: KELLOGG, GENERAL MILLS, POST, AND QUAKER

Cold breakfast cereals composed of flakes were invented in the United States (see Parallel History), but breakfasts of different kinds of grains have been consumed for many thousands of years. Not just a millennia or three, either; emmer and einkorn wheat consumption have been dated back 17,000 years. The word *cereal* derives from the name Ceres, for the Roman goddess of the harvest, and refers to grasses with edible grains or seeds.

Most cereal grains need to be soaked or at least softened with liquid before eating, making a "porridge." An example is the rice congee popular in China, or Indian *poha*. Congee is often eaten cold, but many porridges are served hot, particularly in northern climates.

In their unrefined form, cereal grains are extremely nutritious; the grains contain all the nutrients that the plant in its embryonic form needs to grow. Unfortunately, in some Western countries, milled cereal grains, with fewer nutrients, have become popular because they have a longer shelf life—the outer layers of unmilled grains are high in fat and can spoil more quickly.

PARALLEL HISTORY

Kellogg and Health Foods

William "Will" Keith Kellogg did not set out to invent corn flakes. He was soaking wheat bran to make bread dough in the health sanitarium he ran with his brother John Harvey Kellogg when he noticed that the finished dough was breaking into smaller pieces. He baked the pieces and served them. The crispy wheat "flakes" became a huge hit with the patients, who asked to have packets shipped to them at home after they were discharged. Soon Will discovered that corn made a lighter, tastier flake. He founded the world's first ready-to-eat-cereal company, the Battle Creek Toasted Corn Flakes Company, now known, of course, as Kelloggs.

Although there are many different cereal grains, including spelt, teff, quinoa, barley, sorghum, buckwheat, and grain amaranth, most American breakfast cereals (hot and cold) are based on wheat and oats. Oatmeal, Cream of Rice, Cream of Wheat, and Wheatena are usually served with hot or cold milk and sweetened to individual taste. Residents of southern states often eat hot cornmeal known as "grits" for breakfast, served with butter and salt or sugar. Besides being cheap and easy to make, porridges of cereal grains are easy to digest, and thus are often given to people recovering from illness.

Peanut Butter

ORIGINAL INVENTORS: INCAS
89 PERCENT OF AMERICANS EAT PEANUT BUTTER
NUMBER ONE PEANUT-GROWING STATE: GEORGIA

You probably learned in school that African-American agricultural chemist George Washington Carver "invented" peanut butter. It's true that Carver, who figured out 300 different uses for the peanut, discovered that when ground into a paste, peanuts were delicious and filling. However, Carver did not believe in patenting his findings. "God gave them to me," he would say about his ideas. "How can I sell them to someone else?"

Thus Carver's best known concoction didn't make him rich, and he would have said that was just fine. Peanut butter has actually been "invented" and then reinvented many times since the crop's early origins in Brazil, around 950 B.C. The ancient Inca pounded peanuts into a paste, and that was one of the specimens early explorers brought back to the West. It became a commercial crop in the United States, first in North Carolina (around 1818) and then later in Virginia, which became famous for its peanuts.

Many other inventors contributed to peanut butter's development as a popular foodstuff, including Dr. John Harvey Kellogg of Kellogg's cereal fame, who marketed a nut-grinding machine in the late 1890s. However, when Joseph L. Rosenfield of Alameda, California, invented a mixing process to smooth out the previously lumpy peanut butter, the nut paste really took off. Rosenfield licensed his process to Pond's in 1928, which began selling Peter Pan peanut butter. A few years later, Rosenfield introduced Skippy, his own brand of peanut butter, sold in crunchy and creamy styles.

Today more than half of all edible peanuts grown in the United States are used to make peanut butter, and the Procter & Gamble plant that makes Jif brand peanut butter produces 250,000 jars every day. In recent decades, higher numbers of people sensitive to peanut allergies have made peanut butter unwelcome in some schools and childcare centers. However, peanut butter remains a staple, with the average American consuming nearly four pounds each year.

Popcorn

ORIGINATION: UNITED STATES
TERM "POPCORN" DATES TO ABOUT 1810
AMERICANS CONSUME 17 BILLION QUARTS PER YEAR

Popcorn is an indigenous food product that is also cheap, wholesome, low-calorie, and versatile. However, the word *corn* originally did not refer to cobs at roadside stands as it does today; it's Old English for "local grain." The "corn" in the Bible (e.g., Ruth "among the alien corn") probably meant barley. In England it would have been wheat, and in Scotland and Ireland, oats. European settlers in the New World called the common grain found there "corn," although its proper name is "maize" (*Zea mays*).

Maize has grown in the Americas for millennia, and has been popped for at least 2,500 years. The oldest popped whole ears of corn were discovered in New Mexico. Popcorn pops when water and oil trapped between its dense endosperm and hard hull boil up when heated. The pressure forces moisture into the endosperm and the outer hulls crack. Many people, including the early colonists, ate sweetened popcorn, sometimes with milk poured over it, for breakast. The Massachusetts Wampanoags, who introduced popcorn to the first Thanksgiving feast in Plymouth, even made beer from leftover popcorn that they would ferment like any other grain.

Around the 1890s, popcorn became a common snack food, partly because of that era's health-food boom. Most popcorn (70 percent) is bought and consumed at home, and produced in Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Missouri, Nebraska, and Ohio. Some of the remaining 30 percent is eaten at cinemas, popcorn having gained popularity with moviegoers in the 1920s. One nostalgic popcorn-making method for modern Americans is Jiffy Pop, a foil-topped pan with a handle; its top becomes an aluminum mushroom cloud when shaken over heat.

PARALLEL HISTORY

Nachos

As befits its belly-filling qualities, the popular snack known as nachos came about out when some people had the munchies. It was 1943 in Coahuila, Mexico, and a group of military wives from the nearby U.S. Army base of Eagle Pass came into the town's Victory Club looking for hors d'oeuvres after the restaurant had closed for the evening. Head chef Ignacio "Nacho" Anaya threw together deep-fried triangles of corn tortilla with cheese and jalapeño peppers and baked them briefly until the cheese melted. Before you could say "Bueno appetito," the cheesy, crispy dish had been devoured. The Modernos Restaurant in Coahuila's Piedras Negras serves the original recipe.

Daylight Saving Time

FIRST OBSERVED IN EUROPE ON APRIL 30, 1916
ORGINALLY A WARTIME ENERGY-SAVING MEASURE
OBSERVED BY NEARLY 70 COUNTRIES

Springing forward and falling back have become American rituals—we set our clocks forward one hour in the spring to add a glorious hour of light to our afternoons. Then in fall we get an extra hour of sleep when we set the clock back. Forgetting means arriving late (in spring) or early (in fall) to Sunday-morning appointments.

The idea is credited to Benjamin Franklin, who didn't actually propose setting clocks forward. His plan, laid out in a witty letter to the *Journal de Paris* in 1784, was to make people get up earlier. In what must be one of the earliest investigations of fuel economy, Franklin described the oil a lantern used, saying it was not the same as the light it gave off. His letter turns to the related subject of candle usage, and he concludes that rising a few hours earlier could save Parisians more than 64 million pounds of candles a year. Ever in love of economizing, he suggests putting a tax on every shuttered window that kept out sunlight (and prevented people from rising), and ringing every church bell at sunrise. "And if that is not enough, have cannon fired in every street to awaken the sluggards effectually and make them open their eyes to see their true interests."

In 1907 an Englishman named William Willett proposed setting the clocks forward 80 minutes in spring and summer, but Parliament rejected the idea. Germany and Austria became the first to observe a time change as a wartime energy-saving measure on April 30, 1916. British summer time and a number of other European time-change legislations quickly followed. The United States adopted daylight saving for less than a year in 1918 and 1919, then resurrected it for four years during World War II. In 1967 Congress passed the Uniform Time Act, bringing back daylight saving time. Since then various adjustments have been made to its dates.

Number 13

TRISKAIDEKAPHOBIA: FEAR OF NUMBER 13
FAMILIAR 13s: AMERICAN COLONIES, BAKER'S DOZEN,
ALEX RODRIGUEZ, DAN MARINO, WILT CHAMBERLAIN

Of all superstitions, fear of the number 13, called triskaidekaphobia, is the one with the most influence still in the modern world. More than 80 percent of high-rises lack a 13th floor; many hospitals have no room number 13; France and Italy rarely have 13 as a house address; airports often skip gate 13 and airplanes don't include a 13th row. Most telling, up to $900 million is lost every Friday the 13th because of people not flying or conducting business on this double-whammy day.

Folklorists trace this numeric nervousness to a pre-Christian Norse myth. Twelve gods were having a dinner party in Valhalla, their heaven. An uninvited 13th guest named Loki arrives. A known mischief-maker, Loki then arranges for Hoder, the god of darkness, to shoot Balder the Beautiful, god of joy, with a mistletoe-tipped arrow. Balder dies and the Earth is shrouded in darkness.

A sense of foreboding and doom has attended the number 13 ever since. The Christian story of the Last Supper fit readily into the Norse framework. Judas is the last disciple to show up, making 13 at table; the next day he betrays Jesus. In ancient Rome, covens were reputedly made of 12 witches; the 13th was the devil.

Numerologists place some of the blame on 13's unfortunate position after 12. A "complete" number, 12 can be divided evenly into halves, thirds, and fourths; it is the number of the disciples of Jesus, signs of the zodiac, months in a year, gods of Olympus, labors of Hercules, tribes of Israel, and people on a jury. Adding one unbalances the completeness of 12. But nobody seems to complain about a baker's dozen, the tradition of giving 13 baked items instead of 12, stemming from a 1266 British law levying stiff fines on bread companies that cheated.

However, another rationale behind the fear of the number 13 that has ancient roots is the Egyptian belief that spiritual ascension came in 12 stages in this life. The 13th stage was the afterlife—and, of course, nothing could be known about it. Anything to do with 13, then, was shrouded in mystery and had to do with death. For the ancient Egyptians, this bestowed a kind of reverence for the number 13, the symbol of the afterlife. However, subsequent cultures simply took the association and made 13 part of their overall fear of death.

Finally, the number 13 has some even more ancient associations than with the Egyptians—those having to do with female power. Thirteen had been revered in prehistoric goddess-worshipping cultures because it corresponded to the number of lunar (menstrual) cycles in a year (13 x 28 = 364 days). The "Earth Mother of Laussel," a 27,000-year-old carving in the Lascaux caves in France, shows a female figure holding a horn with 13 notches. It is thought that fear of the feminine (including the inability to conquer or contain its power) might have been associated with fear of the number 13.

Blue Jeans

JEANS: FROM "GÊNES" (GENOA), PLACE OF FIRST PRODUCTION
DENIM: FROM "DE NÎMES" (AS IN, FABRIC OF NÎMES)
FIRST AMERICAN BLUE JEANS MADE BY LEVI STRAUSS

The story of blue jeans involves a purpose from India, a style from Italy, a fabric from France, and a business idea from California. During the 16th century, sailors would buy a thick cotton indigo-dyed cloth near the Dongarii Fort near Bombay, which is where we got the word *dungarees* for work pants.

These sailors brought the fabric back to Italy, and supposedly its manufacture near, and export from, the city of Genoa led to a new name, *bleu de Gênes*—Genoa blue, and again for some, the origin of the term "blue jeans."

Complicating all of this is serge de Nîmes, a fabric named after but not necessarily made in the French port of Nîmes, since sometimes a fabric made elsewhere but in the same manner would be given the "de Nîmes" appellation. The one thing that historians can say with certainty is that "jean" fabric had two threads, warp and woof, of the same color, while "denim" fabric had one blue thread and one white thread.

PARALLEL HISTORY

Off-the-Rack Clothing

For centuries, people made their own clothes. If they had enough money, they called in a professional tailor or seamstress, but the clothes were customized to each individual's measurements. The military was one of the forces behind ready-to-wear clothing; since many soldiers needed to be measured, and some of those measurements tended to be similar (for example, chest circumference), patterns could be standardized and clothing made in larger quantities. This was called off the rack, since a shopper could simply pull a coat or trousers in his or her size from a display and take it home, without the time-consuming and more costly fittings that had previously been the norm.

Eventually, "jeans" would come to mean the style of trousers, which were loose and comfortable for working and often had pockets, while "denim" would become the fabric of choice for making jeans. That was due, in no small part, to a German immigrant named Levi Strauss. Strauss went to San Francisco during the gold rush era and opened a dry-goods store. One of his customers, a tailor named Jacob Davis, had come up with the idea of placing copper rivets at stress points on work pants to keep them from ripping. He asked Strauss to go into business with him, and their "waist overalls" proved a huge hit with the laborers. But there was one problem: the canvas that Strauss and Davis first used chafed. When they tried the same pants in denim, workers breathed sighs of relief.

Deodorant

FIRST ANTIPERSPIRANT INTRODUCED IN 1888
ROLL-ON ANTIPERSPIRANT FIRST SOLD IN 1952
MOST ANTIPERSPIRANTS ALSO CONTAIN DEODORANT

Efforts to mask natural human body odors appear to have been around as long as civilization. The Sumerians of the fourth millennium B.C., who developed one of the earliest written languages, left records of their deodorants. Ancient Egyptians used perfumed oils, mixtures of cinnamon and citrus, and a kind of time-release device—a cone of perfumed fat that slowly melted in the heat. The Egyptians even went a step further by removing their underarm hair. It worked because odor is produced not by perspiration but by colonies of bacteria that break down in perspiration; they thrive in warm, damp areas such as the underarms, genitals, and feet. Greeks and Romans used perfumed oils. Alcohol-based perfumes came to Europe from the Middle East in the 13th century, courtesy of the Crusaders.The first modern deodorant in the U.S. came out in 1888 in Philadelphia. Called Mum, it was an underarm cream with a zinc compound. But all of these early deodorants simply hid body odor with a more pleasant one.

In 1903, the first commercial antiperspirant, Everyday, made its appearance, getting to the root of the problem. By this point a less irritating compound of aluminum chloride was substituted for zinc. Scientists then and now are uncertain how these drying agents work; they may block sweat glands, temporarily preventing them from secreting perspiration. Spray-on antiperspirants appeared in the 1960s. Pump-release and stick deodorants became popular in the 1980s when criticism arose over the ozone depletion caused by chlorofluorocarbons (CFCs) in aerosol sprays.

Hula Hoop

"HULA" ADDED TO HOOP IN EARLY 19TH CENT.,
REFERENCES HAWAIIAN HULA DANCING
HEIGHT OF U.S. HULA HOOPING FAD: LATE 1950S

The first people to swing a hoop around their midriff were probably the Egyptians of 1000 B.C., who used dried grapevines for hoops. These multi-purpose toys were rolled over the ground with sticks, or swirled around the waist like a modern hula hoop. Children in Greece and Rome later caught on to the same game.

A hoop craze swept England in the 14th century. Both adults and children were taken with the fad of spinning metal or wooden hoops, and doctors attributed many dislocated backs, heart attacks, and various other aches and pains to hooping. "Hoops kill" was the pronouncement of the medical establishment, a reference to an earlier British game called "kill the hoop" in which darts were thrown through rolling hoops.

In the early 1800s the toy became known as the hula hoop when British sailors to the Hawaiian Islands observed the similarity between hooping and hula dancing. A sensuous Polynesian dance, the hula was performed by topless women wearing short skirts and men wearing loincloths, accompanied by chants and rhythmic drumming. With undulating hips, the dancers would honor their gods and praise fecundity, using a rich vocabulary of highly stylized gestures of the arms, hands, fingers, and face to tell a story.

Poker

FROM FRENCH "POQUE" (BLUFFING GAME)
POPULARIZED IN NEW ORLEANS, 19TH CENTURY
HIGHEST SCORING HAND: ROYAL FLUSH

Although poker originated in Europe, it became established and popularized in the United States, and then spread back across the Atlantic. Card games similar to poker were developed by the 1520s. The Spanish three-card game *primero* (Italian: *primiera,* French: *la prime*) included betting on high hands—three of a kind, a pair, and a *flux* (flush), or three of the same suit.

By the year 1700 there were a number of five-card games that not only involved betting but also bluffing—betting on a bad hand to trick others into folding, or dropping out. The English game brag, the German *pochen,* and the French *poque* all refer to this underlying principle that with any hand a player must calculate not only the strength of his cards, he must also guess his opponents' ability to bluff or to read his own bluff. The word *poker* derives from poque, which itself is a corruption of pochen ("to bluff"). Good players develop a "poker face," or unreadable bluff.

UNCOMMONLY KNOWN . . .

Playing Cards Playing cards probably came from China in the seventh to tenth centuries. Earlier cards with symbols may have been used for centuries as divination tools. From China, cards traveled to Europe in the 13th century, possibly through Venice in the hands of famous father-and-son travelers Niccolò and Marco Polo.

French colonists brought poque into the Louisiana Territory, and from New Orleans it spread up the Mississippi River. The first reference to poker was made in 1829 by a touring English actor. The Civil War (1861-65) was probably the greatest spur to poker, the game giving soldiers relief from the strains of battle and camp life. Two main forms of the game evolved—draw (cards dealt facedown) and stud (some cards dealt faceup).

In 1870 Col. Jacob Schenck, U.S. Ambassador to Great Britain, taught poker to members of the court of Queen Victoria. The queen herself became interested in the game, and Schenck wrote up a set of rules for her. Not until after World War I did the rest of Europe catch on to the game, which was imported by American soldiers.

Since the advent of the Internet, poker has gone online big time. Besides online lessons, message boards, and strategy sites, professional and amateur players compete virtually for real stakes in global, real-time competitions.

Slinky

CREATED BY RICHARD JAMES, MARINE ENGINEER
DEBUTED AS TOY IN PHILADELPHIA, 1945
MADE OF STEEL RIBBON OR PLASTIC

The coiled metal toy that walks down stairs began life, as did Silly Putty, as a failed scientific endeavor. Marine engineer Richard James was trying to create an anti-vibration mechanism for ship instruments in the early 1940s. He was using tension, or torsion, springs that would quickly counter the effects of waves at sea. One day he knocked over a delicate experimental spring and watched in amazement as it crept, its coils fountaining, down a stack of books, onto a table, then to the floor. He found that it was especially good at descending steps.

Seeing the spring as more than a passing curiosity, James and his wife borrowed $500 and started a production company for a toy they called Slinky. Using a homemade machine, they coiled 80-foot sections of steel ribbon into the first Slinkys, and during Christmas 1945 debuted the toy at Gimbels department store in Philadelphia. Nervous about how the toy would sell, James lined up a friend to buy the first one. He needn't have worried—within 90 minutes he had sold 400 Slinkys.

Since then, more than 300 million Slinkys have been sold. Though they started as a scientific failure, the flip-flopping toys have proved useful in a number of ways. The Slinky is the perfect device for illustrating wave motion in physics classes; soldiers in Vietnam used Slinkys as radio antennas; and a Slinky was part of a space shuttle experiment that tested the mechanics of springs in zero gravity.

The inventor's life spiraled in a different direction from his toy. Suffering a midlife crisis, he left his family in 1960 and joined a religious cult in Bolivia, donations to which nearly sank the company. He died in 1974 at age 60.

Matches

PRE-19TH-CENTURY FIRES WERE MADE FROM:
STRIKING FLINT AGAINST STEEL, RUBBING STICKS
KEY INGREDIENT IN MODERN MATCH: PHOSPHORUS

Until the early 19th century, the standard way to create fire was to strike flint against steel. In 1680 British chemist Robert Boyle made fire by drawing a sulfur-tipped splinter of wood through a piece of paper coated with phosphorus. But phosphorus was a newly discovered and expensive element, and more than 100 years would go by until scientists turned their attention to household matches.

As early as 1805 French chemists began making "ethereal matches"—splinters tipped with potassium chlorate (an oxidizing salt), sugar, and gum arabic. The matches were dipped into a bottle of sulfuric acid; when pulled out, the match tip combusted. Another variation, the Promethean, was a match tipped with an acid-containing glass bead; the user would break the glass, exposing the treated tip to air, and the match would ignite.

The real breakthrough came by accident in 1826. English pharmacist John Walker was stirring a mixture of antimony sulfide, potassium chlorate, sulfur, and gum. To clean the stirrer off, he scraped it on the stone floor and it caught fire. Walker had just invented the friction match. Though Walker did not patent his invention, three-inch matches called lucifers soon hit the market. Lit by drawing them through folded sandpaper, they showered the user with sparks and gave off such a pungent odor that warnings were printed on the box for people whose lungs were delicate.

Manufacturers began tipping matches in phosphorus, which made it possible to strike them on any rough surface. The phosphorus created another health hazard (see Parallel History, opposite), and there was still the problem of unwanted sparks. The safety match came along in 1844, the product of Swedish chemist Gustave Pasch, who removed some of the igniting ingredients from the match and put them in the striking surface. A new industry was born; well into the 20th century the Swedish Match Company supplied most of the world's matches.

X-ray

ELECTROMAGNETIC RADIATION OF
SHORT WAVELENGTH AND HIGH FREQUENCY
DISCOVERED 1895, WILHELM CONRAD RÖNTGEN

German physicist Wilhelm Conrad Röntgen (1845-1923) was experimenting with electric current in a cathode-ray tube in 1895 when he noticed a strange phenomenon. A fluorescent chemical across the room began to glow with light. Electrons formed in the tube were somehow traveling across the room and interacting with the chemical. Furthermore, the electrons could travel not only through glass, but through wood, paper, aluminum, and other materials. Not willing to give a name to something he did not completely understand, he simply called it "X radiation." Since the radiation did not appear to behave like light, he did not at first realize that it was part of the electromagnetic spectrum.

The existence of an electromagnetic spectrum had been theorized only in 1864. Radio waves, discovered in the late 1880s, were the longest wavelength (lowest energy), followed by infrared rays, visible light, and ultraviolet rays. X-rays fit next on the spectrum, with a wavelength shorter than ultraviolet rays. (Having the shortest wavelength, gamma rays would complete the spectrum in 1900.) Like all other electromagnetic energy, or radiation, x-rays come naturally from the sun. Most of this radiation is blocked by the atmosphere. But Röntgen's discovery showed that x-rays could be artificially created, and to useful purpose.