Click Here

Dowsing, often referred to as “water witching” or “divining,” has captured human curiosity for centuries. The practice involves using a forked stick, pendulum, or other tools to locate underground water, minerals, or even lost objects. While many swear by its efficacy, the scientific community remains skeptical. This article delves into the historical context of dowsing, explores various scientific investigations, and ultimately seeks to answer the question: is dowsing fact or fiction?A Brief History of DowsingThe origins of dowsing can be traced back to ancient civilizations. Historical references indicate that it was practiced in Ancient Egypt, China, and Greece. The term “dowsing” itself is believed to have originated from the German word “dowsen,” which means “to divinate.” During the Middle Ages, dowsing became particularly popular in Europe, where it was often associated with the search for precious metals and minerals.In modern times, dowsing has expanded beyond water finding to include a wide array of applications—searching for lost items, diagnosing health issues, and even locating energy lines. Despite its age-old roots and diverse uses, dowsing remains a controversial subject in contemporary science.How Dowsing Works: The BeliefsAdvocates of dowsing often attribute success in locating water or minerals to a combination of intuition and subtle environmental cues. Many practitioners believe they can tune into the earth’s vibrations or utilize psychic abilities that are innate to humans.Tools Used in DowsingThe most common tools used in dowsing include:Y-shaped Rods: Traditionally made from willow or metal, these rods are held loosely in each hand.Pendulums: A weighted object suspended on a string or chain.L-rods: Two straight rods held parallel to each other.Practitioners have their unique methods of interpreting the movements of these tools, believing that they react to unseen energies.Scientific Investigations into DowsingOver the years, numerous scientific studies have examined the validity of dowsing. Many of these investigations have yielded negative results, suggesting that dowsing lacks a credible scientific foundation.Controlled StudiesOne significant study conducted in 1990 involved testing experienced dowers against random chance in locating buried pipes filled with water. In this double-blind experiment, dowsers were unable to identify the locations of the pipes better than random guessing. Similarly, a meta-analysis performed by physicist Dr. Robert L. Park reviewed multiple studies and concluded that there was no empirical evidence supporting the notion that dowsers possess any legitimate ability to locate water or minerals.Placebo Effect and Confirmation BiasSome researchers argue that any success stories related to dowsing can often be attributed to psychological phenomena rather than actual abilities. The placebo effect plays a considerable role; individuals may feel they have found water because they are convinced they will succeed. Additionally, confirmation bias—where practitioners only remember successful instances while ignoring failures—significantly skews their perception of efficacy.The Role of IntuitionWhile skeptics dismiss dowsing as pseudoscience, some argue that practitioners may possess heightened observational skills. Experienced dowers might subconsciously pick up on environmental indicators—changes in vegetation patterns, soil composition, or moisture content—that suggest the presence of water.This intuition-driven approach raises an intriguing question: could there be an element of truth within dowsing? Research on intuition suggests that humans can often make accurate judgments without conscious reasoning based on subconscious data processing. However, this does not validate the supernatural claims associated with traditional dowsing practices.Cultural Perspectives on DowsingThe cultural significance of dowsing cannot be overlooked. In some societies, it is seen as an art form or a spiritual practice intertwined with local traditions and folklore. For instance:In rural communities across Europe and America, dowsers are often revered figures who provide invaluable assistance during droughts.In Australia, Indigenous cultures have used similar techniques for thousands of years as part of their connection to land and nature.These cultural perspectives highlight how deeply rooted beliefs can shape perceptions about practices like dowsing—even in the face of scientific skepticism.The Ethical Dimensions of DowsingDespite lacking empirical support, many still engage in dowsing practices. This raises ethical questions about its promotion and application:Misinformation: Should individuals who claim to find water through dowsing be allowed to continue without scrutiny? Misinforming landowners might lead them to invest time and resources into fruitless searches.Desperation: In regions suffering from severe drought or water scarcity, people may turn to any available method out of desperation. Promoting unscientific approaches can detract from legitimate efforts toward sustainable water management.Conclusion: Fact or Fiction?The debate surrounding dowsing continues unabated. While proponents passionately defend their abilities and experiences as valid forms of knowledge-gathering techniques, overwhelming scientific evidence suggests a lack of reliability when it comes to locating underground resources.At its core, dowsing appears to be more a matter of personal belief than demonstrated scientific fact. It raises important questions about how we understand intuition and observation while simultaneously challenging our perceptions of science and spirituality.For some practitioners and believers, the practice may offer comfort or community—a way to engage with nature that transcends mere utility. Yet for those seeking reliable methods for locating essential resources like water, it is prudent to rely on established scientific approaches rather than traditional practices steeped in anecdotal success.Ultimately, while the allure of dowsing remains strong for many individuals across different cultures and regions, it stands at the intersection of fascination and skepticism—a testament to humanity’s enduring quest for understanding amidst mystery. Asked by: Keith Barber, Isle of Wight There is but it doesn’t reveal supernatural powers. Dowsing uses tools that amplify small movements. For example, the traditional ‘divining rod’ is a forked twig held in tension so that small hand movements make it tip up or down. Another method uses two lengths of wire bent into an L shape. The dowser holds the short ends, leaving the longs ends finely balanced enough to cross or part with the slightest tilt of the hands. There is some evidence that dowsers can find water or oil when more traditional methods have failed, which seems miraculous. But experiments show that this works only when the dowser has some unconscious knowledge of where the target is. For example, they might be using clues from vegetation, geography or temperature. They might not realise what they’re doing, and so believe in the supernatural power of the rods. Experiments have been done that eliminate these possibilities, by running water through one of 10 pipes laid underground, or moving the position of water pipes. Under such controlled conditions dowsers do not succeed. Read more: How is a sponge able to hold so much water? What does water taste of? Subscribe to BBC Focus magazine for fascinating new Q&As every month and follow @sciencefocusQA on Twitter for your daily dose of fun science facts. Dowsing, often referred to as water witching or divining, is a practice that has captivated the curiosity of many for centuries. Utilizing dowsing rods, practitioners claim to locate underground water, minerals, or even lost items. Despite its long history and passionate followers, dowsing remains shrouded in skepticism and myth. In this article, we will debunk six common myths about dowsing rods to uncover the truths behind this intriguing practice. Myth 1: Dowsing Rods Are Scientifically Proven to Work One of the most pervasive myths surrounding dowsing rods is the belief that they have been scientifically validated as a reliable method for locating water or minerals. However, extensive scientific research has consistently debunked this claim. Studies have shown that dowsing results are no better than chance. For example, a notable study conducted by the Australian skeptic James Randi demonstrated that experienced dowsers could not significantly outperform random guessing when tasked with locating buried water pipes. The conclusion drawn from these scientific evaluations is clear: while some individuals may experience success when using dowsing rods, there is no empirical evidence supporting their efficacy. Myth 2: Anyone Can Use Dowsing Rods Instantly Another widespread misconception is that anyone can pick up dowsing rods and instantly become proficient in their use. While it’s true that many people attempt to use these tools without previous experience, successful dowsing often relies on a unique combination of skill, intuition, and environmental familiarity. For seasoned dowsers, the practice is not merely about holding rods; it involves a deep connection with the environment and an understanding of subtle energetic fields. Many practitioners spend years honing their skills and developing their intuition. Consequently, while beginners may experience occasional success with minimal training, seasoned dowsers typically exhibit a higher rate of accuracy due to their experience and familiarity with the practice. Myth 3: Dowsing Rods Can Locate Anything Many proponents of dowsing maintain that rods can help locate not just water but also various other materials such as gold, oil, or even lost objects. This myth has contributed to an inflated perception of what dowsing can achieve. In reality, while some practitioners do claim success in locating different substances or items, there is little to no scientific support for these assertions. Most studies focus on water detection due to its practical applications in agriculture and construction. The ability to find other materials through dowsing has not been substantiated by rigorous testing; thus, it remains largely anecdotal. Moreover, the specificity required for other types of locating—such as finding specific minerals or treasures—often falls victim to numerous variables including soil composition, groundwater flow patterns, and environmental factors. As such, while some individuals may report success in using rods for various purposes, these instances should be viewed with skepticism rather than as evidence of universal applicability. Myth 4: Dowsing Is a Magical or Supernatural Ability The notion that dowsing is an otherworldly or supernatural gift is another prevalent myth. This belief often stems from portrayals in popular culture, where dowsers are depicted as mystical figures possessing extraordinary powers. While dowsers do feel a deep connection to their craft and may describe experiences in almost spiritual terms, it’s essential to recognize that this practice does not rely on magic. Indeed, many who practice dowsing describe it as a form of heightened sensitivity to natural energies or vibrations present in the environment. This sensitivity can result from years of observation and practice rather than any supernatural talent. By framing dowsing within the realm of human intuition and environmental awareness rather than magic or the paranormal, we can begin to approach it with a more grounded perspective. Myth 5: Dowsing Is Only Effective for Water While water searching is commonly associated with dowsing rods—indeed one of its primary historical applications—limiting its potential solely to water detection ignores the breadth of experiences reported by practitioners. As mentioned earlier, some followers claim success in locating various substances or objects beyond just water. Nevertheless, it’s important to contextualize these claims within personal experiences rather than universal truths. Yes, some individuals have reported positive outcomes when seeking minerals or even treasures; however, such instances are often anecdotal and lack empirical backing. The focus on water originally stemmed from practical needs in agriculture and survival and continues to dominate discussions about dowsing. When evaluating whether dowsing can prove effective for other materials or purposes beyond simply locating water sources, one must proceed with caution due to the lack of consistent results across different contexts. Myth 6: Dowsing Rods Are Just Simple Tools Finally, many people believe that dowsing rods are mere tools devoid of any complexity. However, while they may seem simple at first glance—a forked stick (Y-rod) or two L-shaped metal rods—the art of using them effectively encompasses much more than just the physical instruments involved. The effectiveness attributed to these rods often lies in the dowser themselves—their mindset, focus, intention, and attunement with their surroundings play critical roles in achieving successful outcomes. Many practitioners report entering a meditative state prior to using their rods; this mental preparation can enhance intuition and sensing abilities during the process. Moreover, even novice users may find varying degrees of responsiveness depending on their emotional state or environment at the time they use the rods. Thus acknowledging that successful dowsing involves more than simple tools allows us to appreciate the depth of this age-old practice. Conclusion Dowsing remains an enigmatic practice steeped in history and folklore. While skeptics continue to challenge its validity and proponents advocate for its benefits based on personal experience, understanding the myths surrounding this ancient technique is essential for anyone considering its use. By dispelling misconceptions about scientific validation, instant proficiency capabilities, magical abilities associated with practitioners, and broader applications beyond water detection—alongside recognizing the complexity inherent in utilizing simple tools—we pave the way for clearer discussions on what dowsing truly entails. Whether you approach dowsing as skeptical observer or enthusiastic practitioner armed with knowledge about its myths can profoundly affect your understanding and appreciation of this unique exploration into human intuition and our relationship with nature’s hidden resources. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material. No water here, but is there any science?(Image: Colin Gray/Getty) Last week, I went dowsing. Also known as divining, this is the ancient practice of holding twigs or metal rods that are supposed to move in response to hidden objects. It is often used to look for water, and farmers in California have been known to ask dowsers to find ways to irrigate their land. Yet despite many anecdotal reports of success, dowsing has never been shown to work in controlled scientific tests. That’s not to say the dowsing rods don’t move. They do. The scientific explanation for what happens when people dowse is that “ideomotor movements” – muscle movements caused by subconscious mental activity – make anything held in the hands move. It looks and feels as if the movements are involuntary. The same phenomenon has been shown to lie behind movements of objects on a Ouija board. Meet the dowser I knew all this when I went to meet John Baker, who is supervising a dowsing workshop at Sissinghurst castle in Kent, UK, tomorrow. What I didn’t realise is just how hard it is to believe the science. Baker specialises in dowsing for hidden archaeological structures. By the time I had finished my couple of hours with him, my scepticism about dowsing was getting shaky. When I arrived, Baker was standing in front of an array of blue flags he had planted in a grassy area in the castle grounds. The flags marked out something his rods had revealed: the outline of a long-forgotten building. Baker held his L-shaped dowsing rods like a pair of six-shooters and walked back and forth across the lines. As he “entered” the building, the rods swung across his body. When he exited, they uncrossed. At this point, I was neither impressed nor surprised. He could see the line of flags, and he knew what he expected to happen. It would only take a small unconscious movement of his hands to make the rods cross, I thought. What would be impressive and surprising is if the rods crossed when I tried it. So I had a few goes. Nothing happened. Baker looked untroubled, but I had begun to feel that I was wasting my time. Just relax Baker suggested I try to relax, shake out my shoulders, and maybe visualise something to do with buildings, since that was what I was dowsing for. I did – and it worked. First the rods started to feel “jumpy” in my hands. Though they didn’t cross as I walked forward, they felt as if they might want to. So I tried it again. Eventually, they crossed every time I “entered” the building. They even uncrossed at the other side. I have to confess, however much I might be able to rationalise what was happening, my newfound ability freaked me out a little. So what happened? Baker’s explanation is that by relaxing, and suppressing all my rationalisations, I allowed my brain to tune into a kind of “energy” associated with the buried structure. I think there’s a simpler explanation. Subtle illusion I was frustrated when nothing happened, and stimulated (and amused) when something did. It seems that a part of me wanted it to work. In other words, the atmosphere was the perfect set-up for the ideomotor effect to kick in and move the rods. Scientifically minded sceptics often express deep dismay at the credulousness of people who believe in dowsing, extrasensory perception and other “inexplicable” phenomena. They should not be so harsh. The illusions that make them seem plausible are astonishingly subtle and powerful. It is only human to attribute such observations to something beyond the normal senses. Even if science is your thing, a brief immersion in the world of the “unexplained” can be enough to inject a little doubt. A final confession: I am still slightly disappointed that the scientific explanation stands up so well. I had a great time with Baker at Sissinghurst, and I’m sure tomorrow’s apprentice dowsers will too. We take a perverse pleasure in things that confound our senses, which is why conjuring tricks are delightful and science can seem a killjoy. The physicist Richard Feynman once said that science is a way of trying not to fool yourself. What he didn’t say was just how much fun fooling yourself can be. Michael Brooks is the author of 13 Things That Don’t Make Sense (Profile/Doubleday) This article first appeared in the Christian Research Journal, volume 14, number 4 (Spring 1992). For more information about the Christian Research Journal, click here. Many first-time observers of the ancient art of dowsing have watched in mute fascination as a dowser seeks out — and finds — underground water. This feat the dowser accomplishes merely by walking the land with his or her dowsers’ stick until it is forcefully thrust downward at the location where the water is to be found. Although millions of people have come to accept dowsing as a unique ability or even a divine gift, few have examined this widespread and seemingly innocuous practice critically — with an eye to uncovering the real source behind its power. The fact that dowsing is also increasingly accepted in the church as a spiritual practice adds to the need for an evaluation of this technique. Dowsing itself is a broad category encompassing many different forms, one of which is dowsing for water. It is the thesis of this article that all forms of dowsing are ancient pagan practices that are really forms of divination. HOW DOWSING ALLEGEDLY WORKS Dowsers claim that they possess a natural sensitivity to alleged earth magnetism, water “radiations,” or some other natural phenomenon. They believe their dowsing stick or other device (often an occult pendulum) somehow “focuses” or otherwise identifies this energy so that one is able to find water or other substances or things that one is seeking — including oil, treasure, and lost persons or objects. The fact that dowsing works is clearly its major defense. Dowsers think that if it works it must therefore be both a helpful and legitimate method: “What interests us about all dowsers is not the theories they develop but the results they obtain. It is these results which will attract more and more adepts [initiates] as well as less and less convinced adversaries.”1 Hoffman-La Roche, the huge multinational pharmaceutical company headquartered in Basel, Switzerland, has been employing dowsers on the company’s payroll since 1944. The dowsers are used in seeking water for the company’s operations. When interviewed as to the unscientific nature of dowsing, a company spokesperson replied as follows: “Roche uses methods that are profitable, whether they are scientific or not. The dowsing method pays….”2 But so do prostitution and selling crack cocaine — in the short run. The question remains: should dowsing be used if it is really a method of occultic divination? Before I document that it is and therefore should be avoided, we need to understand the influence, variety of phenomena, and wide-ranging uses of modern dowsing. THE INFLUENCE AND PHENOMENA OF MODERN DOWSING The modern impact of dowsing is unmistakable. Dowsing societies exist throughout the world — in Britain (e.g., The British Society of Dowsers), Kenya, Sweden, New Zealand, Austria, Argentina, Vietnam, Germany, India, Spain, Israel, Mexico, and other countries. In France, dowsers have a national union, and dowsing societies in many countries — such as the United States and Germany — have memberships of several thousand. Today, dowsing is used by medical personnel, public utilities, geologists, engineers, and even the military.3 Types of Instruments The instruments of dowsing are nearly endless, as are the uses. As I will show, this fact underscores the psychic nature of dowsing in that the dowsing power does not reside in the object used. Consider the variety of implements that have been employed to dowse: pencils, scissors, pliers, welding rods, jewelry, candles, seashells, needles, bent coat hangers, crowbars, guns, whale or shark bones, barbed wire, clothes, water “bobbers,” feathers, “aura” meters, cut tree or shrub branches — even thumbs, fingers, hands, or feet (i.e., no instruments at all).4 Obviously, the kind of equipment one uses is irrelevant. The power resides somewhere else. The key question is: What is the true origin of the power used by the dowser? Later I will show why I believe the real source of a dowser’s power is the spirit world. Nevertheless, every effort is made to remove dowsing from the halls of occultism. Promoters continually stress its supposed “scientific” nature, but they cannot easily escape the supernatural and occultic reality of their art. Varieties of Dowsing Raymond C. Willey is the author of Modern Dowsing: The Dowser’s Handbook. He has dowsed for over fifty years and was instrumental in organizing the American Society of Dowsers (ASD). He served as its secretary and was editor of its periodical, The American Dowser, for over a decade. Willey accepts four basic methods of dowsing: (1) Field Dowsing — the “traditional” use of dowsing which involves locating water, objects, and so forth on a given terrain. This is called “witching the area”; (2) Remote Dowsing — “witching the area” is not required in this approach. Instead, the dowser locates the target from a distance of up to several miles; (3) Map Dowsing — the dowser locates the target using a map or sketch, often accompanied by the use of an occult pendulum. There are no distance limits here, since the dowser can supposedly locate his or her target even 10,000 miles away; (4) Information Dowsing — the dowser obtains needed information on any subject with neither space nor time limits. Willey observes that “information dowsing not only saves time, but can aid greatly to increase the scope of the dowsing process.”5 When people think of dowsing they often assume the process is confined to category one — field dowsing. In fact, it is all four categories that constitute the practice of dowsing. Willey concedes that although all four areas involve dowsing, many people only accept the possibility of field dowsing.6 The reason for this is simple. Field dowsing appears to offer the greatest opportunity for a mundane explanation. Here we are presented with a variety of “naturalistic” theories to supposedly explain the phenomena — from an innate sensitivity, to so-called radiations, to currently unexplored alleged geophysical phenomena.7 Were the supernatural element not apparent in other forms of dowsing, one might think that simple water dowsing could have a natural explanation. But, as we will see, this view is problematic at best.8 The Uses of Dowsing At this point I will list a sampling of dowsing uses culled from the principal U.S. periodical, The American Dowser.9 Anyone who reads this list and still believes dowsing is a scientific practice rather than a psychic ability has more faith in science than is safe. Dowsers claim their art has successfully been used: to instruct children in developing their psychic abilities; to find accident-prone highway sections; in veterinary diagnosis; for automobile diagnosis (car dowsing); to derive information in a pending malpractice suit; in narcotics detection; to find fish in the lake (and whether or not they are biting!); to find archaeological sites and artifacts; for finding downed planes or tracking submarines and ships (e.g., predicting the time of their arrival, not to mention their contents and port of origin); to check an area for snakes; in sport hunting (e.g., dowsing for deer); to find unmarked graves; to find lost objects or valuables, murder weapons, and so forth; to find missing persons (e.g., determining whether or not a person is dead by their photograph and, if alive, locating them); for checking the “accuracy” of students’ homework; to determine if letters, wills, paintings, and signatures are genuine or forged; to track storms; for use in astrology and most other forms of the occult; to detect multiple personalities or spirit possession; to find “subconscious blocks”; to determine the soil composition and fertilizer needs of one’s house or garden plants; to sort eggs to determine the sex of the chick. As if all this were not enough, dowsers Erwin Stark, Raymond Willey, and Gordon MacLean10 tell us that in addition to the above we can: track down hunted criminals; uncover a spouse’s infidelity; locate “subluxations” or cavities if we are chiropractors or dentists; forecast the weather; measure intelligence; detect pregnancy; find the “right” medical specialist for rare diseases by dowsing the phone book; find ghosts or poltergeists; detect acupuncture points; determine the height, weight, and age of kidnappers or rapists; detect oncoming earthquakes; determine edible plants in the wilderness; find avalanche victims; and — for the amateur astronomer — determine the composition of moon rocks, determine whether or not a planet is inhabited, and diagnose the conditions of the astronauts before they land. (Not to mention the further benefit of locating fleas on one’s dog!) Now, did I leave anything out? (How about returning safely from the Twilight Zone?) DOWSING AND THE CHURCH The research of Ben G. Hester, Dr. Kurt Koch, and others reveals that dowsing is considered an acceptable, or at least innocent, practice in the minds of many Christians. Dr. Koch observes that “believing Christians are divided on the question of what they should think of rod and pendulum [dowsers]. I have met doctors, pastors, missionaries, and even evangelists who use the rod or pendulum and believe they have received this gift from God.”11 Hester, whose text on the subject is probably the best expose available, personally told me how dowsing was practiced extensively among the leadership of a large, conservative, denominational church.12 To cite another illustration, Monte Kline, an evangelical Christian promoter of many dubious holistic health methods (e.g., homeopathy and applied kinesiology) argues that the practice of dowsing is a natural ability and therefore acceptable on the following basis: After some study and considerable experience in dowsing myself, as well as training others, I am quite certain this is merely a natural, explainable phenomenon….My training in dowsing came from a committed, doctrinally-sound, Spirit-filled Christian, and I have trained two other above reproach Christian men (one of them a pastor) in dowsing. An associate recently shared with me that a relative of his, a well-known former evangelical Bible college president, has dowsed for water all his life.13 Christian dowsers sometimes attempt to justify the practice by appealing to the Bible. Unfortunately, Christians who claim the Bible teaches dowsing are forced to treat Scripture in the same manner as cultists who distort it to justify their particular religious beliefs and practices. Biblical passages that refer to digging wells or searching for water — but never mention dowsing — are said to be “mistranslated.” If they were “properly” translated they would, supposedly, mention dowsing.14 In fact, there is only one direct reference to dowsing in the Bible. But here the practice is specifically condemned by God: “My people consult their wooden idol, and their diviner’s wand informs them; for a spirit of harlotry has led them astray, and they have played the harlot, departing from their God” (Hos. 4:12). And so, the verdict of Scripture is that those who practice dowsing are being led astray by “a spirit of harlotry” and have “departed from their God.”15 Further, the Bible condemns divination by name in several passages. Because dowsing is a form of divination, it is also rejected in such passages. For example, God tells His people, “There shall not be found among you anyone who…practices divination…” (Deut. 18:10). Let’s consider one example of how Christian dowsers seek to justify their practice. In his article, “Dowsing: Its Biblical Background” (from The American Dowser), Reverend Norman Evans finds it difficult to admit that dowsing is not taught in Scripture. Rather, he attempts to show that it is taught although “hidden in Biblical references” and “not plainly evident at the first reading.”16 Evans even quotes Hosea 4:12 in defense of his view, “My people ask counsel at their stocks, and their staff declareth unto them….”17 But, somehow, he fails to quote the remainder of the Scripture, “for a spirit of harlotry has led them astray, and they have played the harlot, departing from their God.” Still, he proceeds to claim, “Abraham, Issac and Jacob were undoubtedly dowsers.”18 He even classifies dowsing as one of the gifts of the Holy Spirit: “I would be very happy if Paul had listed ‘dowsing.’ But he did not….However, Paul mentions ‘knowledge.’ I shall classify dowsing within the gift of knowledge.”19 He concludes, “As a Christian my gifts are a part of my offering when I yield myself to my Savior. Love is the way in which gifts are to be used….”20 But Reverend Evans never demonstrates that dowsing can be considered the biblical gift of knowledge or any other gift of the Holy Spirit. Further, his argument is spurious. Activities that are condemned in the Bible as sinful and occultic can never be used “in love.” Would God ever accept the other activities condemned along with divination in Deuteronomy 18:9-12 — such as sorcery, witchcraft, necromancy, and human sacrifice — merely because the one using them claimed to do so “in love”? All kinds of evils are done in the name of “love”; this does not justify them. Unfortunately, many dowsers continue to maintain that their “gift” is from God.21 Even the official “Dowser’s Prayer” which hangs on the wall of the American Society of Dowsers in Danville, Vermont accepts that dowsing is a gift of God: The Dowser’s Prayer reads: “Lord, guide my hands, enhance my sensitivity, and bless my purpose that I may be an instrument of Your power and glory in locating what is searched for.”22 DOWSING AND SCIENTIFIC TESTING Dowsers often claim that their practice is scientific. They do so despite other dowsers freely confessing that “Dowsing is witchery” and that it “violates every principle of known science.”23 Worldwide, scientific testing of dowsing consistently disproves the dowser’s claim that it merely represents a natural or learned sensitivity to radiations or some other physical phenomenon. Careful examination of the claims and activities of dowsers (which are frequently contradictory) reveal that there is no factual basis for regarding dowsing as a physical phenomenon. For example, controlled tests conducted by famous magician and psychic debunker James Randi yielded no evidence that dowsers have any unique ability to find water. Like other people claiming psychic powers, dowsers — when their abilities are tested scientifically — characteristically fail.24 In fact, dowsing abilities have been examined in many countries around the world, and the results do not confirm the scientific claims of dowsers. Tests in Australia, the Netherlands, New Zealand, and elsewhere prove that dowsing does not work on the basis of its stated claims.25 In 1984, Michael Martin, a professor of philosophy at Boston University, tested Paul Sevigny himself, the president of the American Society of Dowsers. He reports that even after 40 trials, Sevigny performed at levels worse than chance.26 After Martin reviewed his own results, those of James Randi, plus a scholarly overview of the evidence for dowsing provided by Evon Vogt and Ray Hyman,27 he concluded: “The available evidence can be succinctly summarized: When dowsers perform under controlled conditions, they do not do better than one would expect by chance.”28 DOWSING AND THE OCCULT From ancient times dowsing has been considered an occult art, and has often been defined as a form of witchcraft. The common descriptive terms “witching” and “water witching” reveal how closely the taint of witchcraft has remained to this day. Historically, the church has labeled dowsing as a work of the Devil,29 a fact even many dowsers concede.30 In this section I will supply my reasons for classifying dowsing as an occultic, spiritistic power rather than the normal human ability or divine gift that dowsers claim. Below I will list seven common characteristics of dowsing practice that reveal its true nature as a psychic ability. (1) Many dowsers enter a trance when dowsing. Dowsers admit that a particular “mood” or altered state of consciousness is vital for dowsing to work.31 Note the following descriptions from dowsing literature: The dowser enters into a light trance as he or she becomes more involved with the person, place or thing being sought, and less involved with his or her own thoughts. I was once startled by someone when I was map dowsing and was quite surprised to discover how deeply I had become involved in a state of trance.32 The secret of good dowsing…is a curious state of mind….Dowsing has been compared to a mild state of hypnosis, or trance, or meditation.33 The fact that dowsing requires an altered state of consciousness in order to work properly suggests it is not a scientific practice. (2) Dowsing may cause one to develop other psychic abilities. As dowsers progress in their practice, many of them discover they are slowly developing psychic powers. The fact that dowsing can lead to the development of psychic abilities (such as telepathy and clairvoyance) is mentioned by Hester and many practicing dowsers.34 For example, as a member of both the ASD and the British Society of Dowsers comments: “Over many years I find the methods used by me have, in the course of their progress, transferred to Psychometry and now Astral projection, the latter two methods projecting me to all parts of the World, no matter how remote.”35 The fact that dowsing can cause one to develop psychic abilities also associates dowsing with the world of the occult and spiritism, not science.36 (3) Dowsing requires faith, respect, and a personal interaction/response with the rod. Raymond Willey observes that “you must be prepared to treat this faculty of dowsing with respect.”37 Further: “Anything that causes the dowser to question the act, or to lose ‘faith’ in it, immediately renders him incapable of performing. He can get no answers from his device, or method….We have found repeatedly that a mental ‘set’ or faith is an absolute necessity to successful dowsing.”38 The facts of dowsing suggest that the force behind this practice is personal, intelligent, and desirous of human interaction. Perhaps this is one reason Martin Luther referred to dowsing as a form of idolatry.39 If men were only dealing with an impersonal force, it would never require respect, or faith, or personal communication. But these responses are exactly what spirit guides require and demand of their human mediums. Many illustrations of this kind of spirit-human interaction could be cited from those who use Ouija boards, the I Ching, rune dice, tarot cards, or who employ ceremonial magic and other forms of the occult.40 Many indications exist that a personal spirit entity operates through the dowsing implement and that interaction with it is necessary for success. For example, the dowser is instructed to ask specific questions of his rod or pendulum. In reading the accounts of dowsers’ personal communications with the supposedly impersonal “force” of dowsing, one is immediately struck by the similarity to a Ouija board and other psychic oracles that require “yes” or “no” answers: “Every move, question or word in the dowsing act speaks of supernormal intelligence — greater intelligence than can be credited to any phenomenon of human intellect….Every book or pamphlet on dowsing instruction stresses the necessity to ask the device questions from the very first try. They urge the learner to keep trying until the thing suddenly does answer…. Is there any basic difference in this and the use of the Ouija Board?”41 The Ouija board itself, of course, is merely wood, just like the dowser’s stick. Yet it is difficult to deny that there is frequently a living power behind it — an independent, personal spirit entity that demands one to inquire of it if one wishes success. And few who are familiar with the facts surrounding the potential consequences of using a Ouija board would venture to deny that this power is evil.42 Willey confesses of dowsing: “One of its most dramatic features is its ‘selectivity.’ This means dowsing supplies an answer to a specific question….(You have learned how a yes and no answer is obtained from dowsing devices, often obtaining answers to questions which cannot be answered from other sources).”43 Another dowser acknowledges the universal necessity for the following: “Always decide precisely what you seek and ask for it in unmistakable terms.”44 Dowsers are thus taught to talk to the power. But one can only ask why this is so. And one can only wonder — to whom are they talking? Why does a truly impersonal force need to be spoken to? How can it “demand” this — unless, of course, one is really dealing with something personal like a spirit entity? (4) Dowsing is linked to other forms of the occult. Dowsing is often linked with other forms of occult practice. For example, dowsers have made connections between dowsing and such practices as astral projection, remote viewing, shamanism, and yoga.45 Dowsers also frequently employ occult pendulums and other radionic devices (i.e., instruments used for detecting “vital energy”).46 Most water dowsers are typically “sensitive” to the pendulum and a majority of dowsers employ it.47 This is why dowsing societies routinely sell a wide variety of pendulums and other occult implements such as “aura indicators.”48 But all such implements are simply useless radionic devices: the psychic power comes from the spirit entity who works behind the device, not the device itself. All divinatory methods utilize some principal object that becomes the focus and/or vehicle through which spirits work to serve the client and produce the needed answer to questions, character analysis, future prognostication, and so forth. The object becomes the contact material for spirits to work through. The following is a sampling of common forms of divination with their associated contact materials. Astrology: the horoscope chart; tarot: a deck of cards with symbols; I Ching: sticks, printed hexagrams; runes: dice; Ouija board: an alphabet planchette; Radionics/psychometry: the divining rod, pendulum, “black box” (a diagnostic apparatus for calibrating energy patterns); palmistry: the hand; crystal-gazing: the crystal ball or crystal rock; metoscopy/physiognomy/phrenology: the forehead/face/skull; geomancy: combinations of dots or points; water-dowsing: the forked stick or other object. Is it reasonable to expect that mere pieces of paper bearing symbols (horoscopes), simple forked sticks, cards, hands, dice, letters of the alphabet, rocks, facial lines, or dots could supply miraculous information? Even many practitioners of these arts refer to “supernatural influences” — to gods and spirits who operate through these methods. Space does not permit documenting the spiritistic nature of the above, but sufficient illustrations are cited elsewhere to establish that even practitioners of those arts acknowledge or suspect spirit influence in their methods.49 Frequently, these practices do two things: they develop a person psychically50 and they lead to spirit contact (though in many forms of divination this may not be readily discernible).51 (5) Christian activities such as conversion and prayer hinder dowsing powers. Conversion to Christ may mean loss of the dowsing ability altogether. Prayer may hinder or prevent the dowsing process. For example, Hester and Koch both refer to cases where conversion and/ or prayer have had these effects.52 This reveals an additional link to spiritism. Regeneration (John 3:3-8; 6:63; 2 Cor. 5:17) and answers to prayer (Prov. 15:8, 29; 1 John 5:14) are activities of God. When these activities counteract certain practices, then, by definition, those practices cannot be activities of God, or else God would be seen to work against Himself. Thus dowsing cannot be a gift of God. We would expect the activity of the demonic spirit world to be hindered by conversion or prayer. Jesus came to destroy the works of the Devil (1 John 3:8). Consequently, Christian actions can hinder genuine psychic activity but it is not credible to think that a neutral or natural power would be so affected by Christian activity. Thus dowsing is also not a natural human ability. Christian dowsers often reply that they have “prayed” about using the device. But does one ever pray about committing the sin of divination? Since dowsing is condemned in Scripture (Hos. 4:12; Deut. 18:9-12) there is no need to pray about employing the practice. If one is ignorant of the biblical prohibition, that is one thing. But if one knows that God has warned against divination, to then pray concerning whether or not it is permissible reflects doubt over God’s Word (James 1:5-8).53 (6) Dowsing power is uncontrollable and supernatural. If dowsing were really a learned human ability then it could be controlled at will, just like any other learned human ability from bike riding to typing. What proves dowsing is not a human ability is its uncontrollable nature, independent will, and supernatural power. Because the issues involved are so important I will document this section in a bit more detail. Let me begin with a personal illustration. “Sam” is a friend of mine who owns a farm in California. He called a local drilling company only to discover they employed a dowser to locate water. Although he was skeptical, Sam agreed to permit the dowser to try to find the best spot to drill. The dowser cut a forked branch from a tree and proceeded to walk the property. Everyone present noticed the forceful thrust of the stick downward. But Sam was more skeptical than ever. The dowser offered to prove the power was real. He challenged Sam to use the stick himself. Sam proceeded to walk the property. When he got to the same spot as before, the stick was powerfully thrust downward as if by an invisible hand. Sam was shaken; he couldn’t believe it. He knew he had done nothing to move the stick, but it had still reacted powerfully to the same location. Next, the rest of Sam’s family tried. It worked for two others, but for three additional members it would not work at all — no matter what they did. Nevertheless, water was found at the exact spot the stick indicated. The next day Sam relayed this incident to me. I informed him that this was a spiritistic ability and something to be avoided. Sam did not want to believe in such things and challenged, “Look, I’ll show you it works.” As he proceeded to cut a branch from a tree, I told him that there would be no power manifested. Try as he would, Sam could not get the stick to react. In fact, he kept cutting different branches from trees and bushes, thinking the power somehow resided in the “proper” branch. But, I explained, the power resides in the spirits who work through the dowser. No power was manifested because (1) the dowser was not there, therefore his spirit guide was probably not present; and (2) even if it were, I had prayed that God would prohibit spiritistic activity. Sam never understood why the power wasn’t there. It was obviously present one day. But the very next day it was entirely absent. “Why?” he asked over and over, mystified. This reveals that dowsing cannot work on the basis of a natural sensitivity to water “radiations,” which most dowsers claim. If that theory were true, the experiment should have worked the second time because the water was still there and it had powerfully worked for Sam the day earlier. And if it is a natural practice, why did it only work for certain members of Sam’s family? The fact that it did not work for everyone shows that some other factor must have been responsible. A former ASD editor reveals a conclusion arrived at by many practitioners, that the dowsing power operates independently of the dowser: There is easily demonstrated evidence that the force which moves the dowsing device is independent of the searching-out ability of the dowser….These facts…have been given little weight by most students of dowsing….many who could create this movement [are] reluctant to do so in public because there were supernatural implications….54 Another leader in dowsing reports, “the force can be activated to move devices when no dowsing search is involved, demonstrating that this unknown force has an independent existence,…”55 But the power of dowsing is too great to be explained by anything natural or human. An examination of dowsing phenomena itself reveals that a genuine supernatural power is at work. Note some illustrations: Hard as I gripped, I couldn’t keep that rod vertical, although I persisted until my hands were on the verge of blisters. Strong men have tried all kinds of gadgets to retard the movement of the dowsing rod without avail — the best one can describe the movement of the rod is that the movement, being very sudden, is like a mysterious hand which grasps the end of the rod and either moves it up or down. Even at times when one is practicing on something that is known to be present the shock of the movement is so sudden that one wonders where the power comes from.56 Hester cites his own conclusion and then supplies a personal anecdote that underscores the power of the force operating behind dowsing: It can be stated no more clearly, it is an outside force that moves the rod, not the slight muscle twitch of the dowser’s arms. We watched and interviewed an internationally known dowser who, at our request used two pairs of pliers to hold his forked stick. The pull downward by some external force was so great it stripped the bark off the stick held in the pliers. We tried to pull the stick up from its downward position and found it necessary to exert what we estimated to be more than a ten pound pull.57 Another indication of the spiritistic nature of dowsing is that, as even dowsers confess, the dowsing power has an independent will of its own: The rod or the pendulum seems to take off spontaneously, moved by some force which you can’t understand or control, and like anything supposedly inanimate which seems to have a will of its own, it can be unnerving.58 It may even be best to pretend that the pendulum or the

Dowser, November 1979, 187. Raymond C. Willey, “Dowsing Basics,” The American Dowser, November 1977, 178. Gordon MacLean, “Dowsing Experiences and Problems,” The American Dowser, May 1976, 70. Cf. Hitching, 182-83. Ibid., 79. g., The American Dowser, February 1976, 15; May 1976, 87; August 1976, 118; November 1977, 176. Augustus T. Nottingham, “Reaching Into Space and Time,” The American Dowser, February 1977, 8-9. See John Ankerberg and John Weldon, The Facts on the Occult (Eugene, OR: Harvest House, 1991), 11-21. Willey, Modern Dowsing, 6. Quoted in Hester, 57-58. Ibid., 15-16; Hitching, 41. g., John Ankerberg and John Weldon, Astrology: Do the Heavens Rule Our Destiny? (Eugene, OR: Harvest House, 1989), 244-46. Hester, 41-42. E.g., Edmond Gruss, The Ouija Board: Doorway to the Occult (Chicago, IL: Moody Press, 1973); cf. Stoker Hunt, Ouija: A Most Dangerous Game (New York: Harper & Row, 1985). Willey, Modern Dowsing, 67, 111. Gordon MacLean, A Field Guide, 7; cf. The American Dowser, August 1977, 108. Hitching, 130, 204-5, 243-44; MacLean, Field Guide, 27; Egon E. Eckert, “A Dowser’s Trip to West Germany,” The American Dowser, May 1975, 68. E.g., The American Dowser, February 1976, 3, 13; August 1978, 118-19; May 1975, 68; November 1977, 177; May 1977, 76-77. E.g., A. J. Soares, “My Pendulum Said ‘No’,” The American Dowser, November 1977, 191. The American Dowser, February 1976, 3; Standard ASD Supply List for 1983. See Ankerberg and Weldon, Astrology, 245-47 for primary documentation. See John Ankerberg and John Weldon, The Facts on the Occult, 11-21 and note 74 of this article. See note 69. Hester, 58, 188; Koch, Occult ABC, 188-91. Hester, 118, 157. Willey, Modern Dowsing, 23-24. Raymond C. Willey, “Editorial,” The American Dowser, May 1976, 75. Harvey Howells, “How We Came to Dowsing,” The American Dowser, August 1976, 116; Bruce Copen, Dowsing for You (Sussex, England: Academic Publications, 1982), 5, cited in Hester, 70. Hester, 70. Hitching, 68. Ibid., 79. Ibid., 103. Hester, 6. Ibid., 69-70. Ibid., 104-5. John Ankerberg and John Weldon, The Hazards of the Occult (tentative title), to be published by Harvest House, 1993. Coalson, 15. Hester, 155. Ibid., 6. Hitching, 104. Hester, 199-200. E.g., Ibid., 156. Quoted in Ibid., 7. William Vrooman, “Dowsing for Health: Mental and Spiritual Bodies of Human and Non-Human Entities,” The American Dowser, November 1977, 151. Ibid., 44, 114. Pfeifer, 104. Hitching, 60. Hester, 157 The first time you see someone use a divining rod (or dowsing rod) to hunt for water you’ll probably think they are a little crazy. But if you watch long enough, and maybe even ask to “run the rod” yourself for a little while, the odds are pretty good that you’ll become a believer in a hurry. Sure, the ancient art of divining water has had its fair share of skeptics for literally thousands and thousands of years – and modern scientists and researchers still aren’t quite sure of what to make of this practice. And that’s with a pile of scientific evidence to back up the fact that divining rods really work and it is possible to dowse for water! When you look at the divining rod theory, though, and recognize that even researchers that believe in the power of dowsing for water still aren’t quite sure of how or why it works it’s not hard to understand that skepticism. Below we dig a little bit deeper into the ins and outs of this theory and cover some of the evidence that backs up and confirms the effectiveness of dowsing, too. Let’s jump right in! The ancient art of dowsing has been a part of human civilization ever since humans started to hunt and dig for water. The current earliest known record of human beings dowsing exists in the northern portion of Africa. A number of cave paintings were discovered by French team of explorers and archaeologists hunting for lost civilizations in the region. They came upon a system of caves (later known the Tassili Caves) absolutely covered in prehistoric paintings and ancient art. One of the paintings prominently shows an individual holding a forked branch hunting for water, surrounded by a number of tribes people that are celebrating their discovery and the water that it inevitably brings forth. There are examples of ancients dowsing throughout history all over the world, too. There’s a Chinese etching more than 25,000 years old that show and ancient emperor holding a dowsing rod, just as there are etchings and paintings in temples, churches, and ruins throughout the Middle East and parts of Europe featuring these tools as well. A number of passages in the Bible speak about dowsers and the power that they have to find water, as do the ancient Greeks, the ancient Romans, and more modern European ancestors, too. In 1400s dowsing really took off throughout Europe and it wasn’t long after that that early settlers in the New World of America were using this “technology” to do the same. Today there are societies all over the world maintaining the skills in history of dowsing, with many of them working with scientific researchers the world over to conclusively prove the effectiveness and efficacy of this ability once thought to be witchcraft. As highlighted earlier, even there are hard-core proponents of the effectiveness of dowsing and divining water even the most evangelical dowsers still aren’t quite sure of the why behind how this process works in the first place. A general theory of dowsing has changed and evolved over time, with our most ancient ancestors simply believing it to be a “get from the gods” and a bit like magic. More modern theories involve tapping into the subconscious mind and the shared consciousness of the world to find water, using our psychological powers to (without even being aware of it) move and manipulate dowsing rods until we locate water under our feet. Some believe that dowsing is effectively an ideomotor movement tied to our expectation of discovering something, speaking more to the power of suggestion and our subconscious mind more than anything else. Using tree branches to dowse for water Of course, some in the geological community are a little more dismissive of divining water and dowsing in general and have a totally different take on the theory of why this practice works. These “nonbelievers” aren’t the impression that dowsers operate in areas where groundwater is so prevalent that it would be almost impossible not to run a well down into the ground and discover water no matter where you stood or “found” its source. In 1990 German researchers conducted a 10 year experiment using dowsers in places like Sri Lanka, Kenya, and Yemen (notoriously dry locales without a lot of surface water available) – and in Sri Lanka alone the dowsers had a 96% success rate when discovering (later drilling) almost 700 wells. Whether or not that lends credence to the power of dowsing or backs up the theory of geologists that groundwater is incredibly prevalent and can be found anywhere is entirely up to an individual’s belief or disbelief in whether or not divining water is the “real deal”. The only way to know for sure where you land on that spectrum is to grab a divining rod and give it a shot for yourself! , the free encyclopedia that anyone can edit. 111,866 active editors 7,010,903 articles in English 1820 historical world map History is the systematic study of the past with its main focus on the human past. Historians analyse and interpret primary and secondary sources to construct narratives about what happened and explain why it happened. They engage in source criticism to assess the authenticity, content, and reliability of these sources. It is controversial whether the resulting historical narratives can be truly objective and whether history is a social science rather than a discipline of the humanities. Influential schools of thought include positivism, the Annales school, Marxism, and postmodernism. Some branches of history focus on specific time periods, such as ancient history, particular geographic regions, such as the history of Africa, or distinct themes, such as political, social, and economic history. History emerged as a field of inquiry in antiquity to replace myth-infused narratives, with influential early traditions originating in Greece, China, and later in the Islamic world. (Full article...) Recently featured: Ian Carmichael Russet sparrow Emmy Noether Archive By email More featured articles About Rosa Parks ... that Rosa Parks (pictured) refused to surrender her seat not because she was physically tired, but because she was "tired of giving in"? ... that most of the population of Niamey has consisted of first- and second-generation rural migrants since the city was established? ... that Harry Wunsch, despite appearing "short and fat", was a "savage tackler"? ... that Black dandyism flourished during and after the Harlem Renaissance as a means of self-expression in the African-American community? ... that 17th-century mathematician Carlo Rinaldini studied gall-inducing insects, air convection, and the design of thermometers? ... that the title of Elegies comes from a suite of poems that its director read during the film's pre-production? ... that Saba's airport, known for its short runway, was named after Juancho Yrausquin in honor of his efforts to secure funding? ... that Sculpture Space lets artists create large-scale works in a former metalworking shop? ... that Olympic historians were unconvinced by speculation that an unknown boy coxswain grew up to be a renowned Georgian mathematician? Archive Start a new article Nominate an article Phil Hanson In motorsport, Robert Kubica, Yifei Ye, and Phil Hanson (pictured) of AF Corse win the 24 Hours of Le Mans. In the US state of Minnesota, state representative Melissa Hortman is assassinated and state senator John Hoffman is injured. Former president of Nicaragua and first elected female president in the Americas Violeta Chamorro dies at the age of 95. Israel launches multiple airstrikes across cities in Iran, killing various nuclear scientists and military officials, including IRGC commander-in-chief Hossein Salami. Ongoing: Gaza war Russian invasion of Ukraine timeline Sudanese civil war timeline Recent deaths: Alfred Brendel Ali Shamkhani Hamilton Wanasinghe Afa Ah Loo Geoff Palmer Stella Chen Nominate an article June 19: Feast of Corpus Christi (2025), Juneteenth in the United States (1865) Lou Gehrig baseball card 1785 – The proprietors of King's Chapel, Boston, voted to adopt James Freeman's Book of Common Prayer, thus establishing the first Unitarian church in the Americas. 1838 – The Maryland province of the Jesuits contracted to sell 272 slaves to buyers in Louisiana in one of the largest slave sales in American history. 1939 – American baseball player Lou Gehrig (pictured) was diagnosed with amyotrophic lateral sclerosis, now commonly known in the United States as "Lou Gehrig's disease". 2009 – War in Afghanistan: British forces began Operation Panther's Claw, in which more than 350 troops made an aerial assault on Taliban positions in southern Afghanistan. Étienne Geoffroy Saint-Hilaire (d. 1844)Sarah Rosetta Wakeman (d. 1864)Aage Bohr (b. 1922)Clayton Kirkpatrick (d. 2004) More anniversaries: June 18 June 19 June 20 Archive By email List of days of the year About Dred Scott (c. 1799 – 1858) was an enslaved African American who, along with his wife, Harriet Robinson Scott, unsuccessfully sued for the freedom of themselves and their two daughters, Eliza and Lizzie, in the 1857 legal case Dred Scott v. Sandford. The Scotts claimed that they should be granted freedom because Dred had lived for four years in Illinois and the Wisconsin Territory, where slavery was illegal, and laws in those jurisdictions said that slave holders gave up their rights to slaves if they stayed for an extended period. The Supreme Court of the United States ruled against Scott in a landmark decision that held the Constitution did not extend American citizenship to people of black African descent, and therefore they could not enjoy the rights and privileges that the Constitution conferred upon American citizens. The Dred Scott decision is widely considered the worst in the Supreme Court's history, being widely denounced for its overt racism, judicial activism, poor legal reasoning, and crucial role in the events that led to the American Civil War four years later. The ruling was later superseded by the passage of the Thirteenth Amendment to the United States Constitution, which abolished slavery, in 1865, followed by the Fourteenth Amendment, whose first section guaranteed birthright citizenship for "all persons born or naturalized in the United States and subject to the jurisdiction thereof", in 1868. This posthumous oil-on-canvas portrait of Scott was painted by Louis Schultze, after an 1857 photograph by John H. Fitzgibbon, and now hangs in the Missouri History Museum in St. Louis. Painting credit: Louis Schultze, after John H. Fitzgibbon Recently featured: Garni Temple Igor Stravinsky Sabella pavonina Archive More featured pictures Community portal – The central hub for editors, with resources, links, tasks, and announcements. Village pump – Forum for discussions about Wikipedia itself, including policies and technical issues. Site news – Sources of news about Wikipedia and the broader Wikimedia movement. Teahouse – Ask basic questions about using or editing Wikipedia. Help desk – Ask questions about using or editing Wikipedia. Reference desk – Ask research questions about encyclopedic topics. Content portals – A unique way to navigate the encyclopedia. Wikipedia is written by volunteer editors and hosted by the Wikimedia Foundation, a non-profit organization that also hosts a range of other volunteer projects: CommonsFree media repository MediaWikiWiki software development Meta-WikiWikimedia project coordination WikibooksFree textbooks and manuals WikidataFree knowledge base WikinewsFree-content news WikiquoteCollection of quotations WikisourceFree-content library WikispeciesDirectory of species WikiversityFree learning tools WikivoyageFree travel guide WiktionaryDictionary and thesaurus This Wikipedia is written in English. Many other Wikipedias are available; some of the largest are listed below. 1,000,000+ articles العربية Deutsch Español فارسی Français Italiano Nederlands 日本語 Polski Português Русский Svenska Українська Tiếng Việt 中文 250,000+ articles Bahasa Indonesia Bahasa Melayu Bân-lâm-gú Български Català Čeština Dansk Eesti Ελληνικά Esperanto Euskara עברית Հայերեն Magyar Norsk bokmål Română Simple English Slovenčina Srpski Srpskohrvatski Suomi Türkçe O’zbekcha 50,000+ articles Asturianu Azərbaycanca বাংলা Bosanski کوردی Frysk Gaeilge Galego Hrvatski ქართული Kurdî Latviešu Lietuvių Македонски മലയാളം Norsk nynorsk ਪੰਜਾਬੀ Shqip Slovenščina தமிழ் ไทย اردو Retrieved from " 2 This article is about the year 1865. For other uses, see 1865 (disambiguation). Calendar year Years Millennium 2nd millennium Centuries 18th century 19th century 20th century Decades 1840s 1850s 1860s 1870s 1880s Years 1862 1863 1864 1865 1866 1867 1868 vte 1865 by topic Humanities Animation Archaeology Architecture Art Literature Poetry Music By country Australia Belgium Brazil Canada China Denmark France Germany New Zealand Norway Portugal Russia South Africa Sweden United Kingdom United States Other topics Rail transport Science Sports Lists of leaders Sovereign states Sovereign state leaders Territorial governors Religious leaders Law Birth and death categories Births Deaths Establishments and disestablishments categories Establishments Disestablishments Works category Works vte 1865 in various calendarsGregorian calendar1865MDCCCLXVAb urbe condita2618Armenian calendar1314ԹՎ ՌՅԺԴAssyrian calendar6615Bahá’í calendar21–22Balinese saka calendar1786–1787Bengali calendar1271–1272Berber calendar2815British Regnal year28 Vict. 1 – 29 Vict. 1Buddhist calendar2409Burmese calendar1227Byzantine calendar7373–7374Chinese calendar甲子年 (Wood Rat)4562 or 4355 — to —乙丑年 (Wood Ox)4563 or 4356Coptic calendar1581–1582Discordian calendar3031Ethiopian calendar1857–1858Hebrew calendar5625–5626Hindu calendars - Vikram Samvat1921–1922 - Shaka Samvat1786–1787 - Kali Yuga4965–4966Holocene calendar11865Igbo calendar865–866Iranian calendar1243–1244Islamic calendar1281–1282Japanese calendarGenji 2 / Keiō 1(慶応元年)Javanese calendar1793–1794Julian calendarGregorian minus 12 daysKorean calendar4198Minguo calendar47 before ROC民前47年Nanakshahi calendar397Thai solar calendar2407–2408Tibetan calendar阳木鼠年(male Wood-Rat)1991 or 1610 or 838 — to —阴木牛年(female Wood-Ox)1992 or 1611 or 839 Wikimedia Commons has media related to 1865. 1865 (MDCCCLXV) was a common year starting on Sunday of the Gregorian calendar and a common year starting on Friday of the Julian calendar, the 1865th year of the Common Era (CE) and Anno Domini (AD) designations, the 865th year of the 2nd millennium, the 65th year of the 19th century, and the 6th year of the 1860s decade. As of the start of 1865, the Gregorian calendar was 12 days ahead of the Julian calendar, which remained in localized use until 1923. Calendar year January 15: Union captures Fort Fisher. January 4 – The New York Stock Exchange opens its first permanent headquarters at 10-12 Broad near Wall Street, in New York City. January 13 – American Civil War: Second Battle of Fort Fisher – Union forces launch a major amphibious assault against the last seaport held by the Confederates, Fort Fisher, North Carolina. January 15 – American Civil War: Union forces capture Fort Fisher. January 31 The Thirteenth Amendment to the United States Constitution (conditional prohibition of slavery and involuntary servitude) passes narrowly, in the House of Representatives. American Civil War: Confederate General Robert E. Lee becomes general-in-chief. February 3 – American Civil War: Hampton Roads Conference: Union and Confederate leaders discuss peace terms. February 6 – The municipal administration of Finland is established.[1] February 8 & March 8 – Gregor Mendel reads his paper on Experiments on Plant Hybridization at two meetings of the Natural History Society of Brünn in Moravia, subsequently taken to be the origin of the theory of Mendelian inheritance.[2] February 21 – John Deere receives a United States patent for ploughs. February 22 – Tennessee adopts a new constitution that abolishes slavery. February – American Civil War: Columbia, South Carolina burns, as Confederate forces flee from advancing Union forces. March 3 – The U.S. Congress authorizes formation of the Bureau of Refugees, Freedmen and Abandoned Lands. March 4 – Washington College and Jefferson College are merged to form Washington & Jefferson College in the United States.[3] March 13 – American Civil War: The Confederate States of America agrees to the use of African American troops. March 18 – American Civil War: The Congress of the Confederate States of America adjourns for the last time. March 19–21 – American Civil War : Battle of Bentonville: Union troops compel Confederate forces to retreat from Four Oaks, North Carolina. March 25 The Claywater Meteorite explodes just before reaching ground level in Vernon County, Wisconsin; fragments having a combined mass of 1.5 kg (3.3 lb) are recovered. American Civil War: In Virginia, Confederate forces capture Fort Stedman from the Union, although it is retaken the same day. Lee's army suffers heavy casualties: about 2,900, including 1,000 captured in the Union counterattack. Confederate positions are weakened. After the battle, Lee's defeat is only a matter of time. March – Hamm's Brewery opens in St. Paul, Minnesota. April 2: Jefferson Davis. April 9: Appomattox Court House. April 14: Lincoln shot. April 1 – American Civil War – Battle of Five Forks: In Petersburg, Virginia, Confederate General Robert E. Lee begins his final offensive. April 2 – American Civil War: Confederate President Jefferson Davis and most of his Cabinet flee the Confederate capital of Richmond, Virginia, which is taken by Union troops the next day. April 6 – German chemicals producer Badische Anilin- und Sodafabrik (BASF) is founded in Mannheim. April 9 – American Civil War: Confederate States Army General Robert E. Lee surrenders to Union Army General Ulysses S. Grant at Appomattox Court House, effectively ending the war. April 14 Assassination of Abraham Lincoln: President of the United States Abraham Lincoln is shot while attending an evening performance of the farce Our American Cousin at Ford's Theatre in Washington, D.C., by actor and Confederate sympathizer John Wilkes Booth. United States Secretary of State William H. Seward and his family are attacked in his home, by Lewis Powell. April 15 – President Lincoln dies early this morning from his gunshot wound, aged 56. Vice President Andrew Johnson becomes the 17th President of the United States upon Lincoln's death and is sworn in later that morning. April 18 – Confederate President Jefferson Davis and his entire cabinet arrive in Charlotte, North Carolina, with a contingent of 1,000 soldiers. April 21 – German chemicals producer BASF moves its headquarters and factories from Mannheim, to the Hemshof District of Ludwigshafen. April 26 American Civil War: Confederate General Joseph E. Johnston surrenders to Union Major General William Tecumseh Sherman, at Durham Station, North Carolina. Union cavalry corner John Wilkes Booth in a Virginia barn, and cavalryman Boston Corbett fatally shoots the assassin. April 27 The steamboat Sultana, carrying 2,300 passengers, explodes and sinks in the Mississippi River, killing 1,800, mostly Union survivors of the Andersonville Prison.April 27: Steamboat Sultana sinks. Governor of New York Reuben Fenton signs a bill formally creating Cornell University. May 1 – The Treaty of the Triple Alliance of Argentina, Brazil, and Uruguay against Paraguay is formally signed, following the outbreak of the Paraguayan War. May 4 – American Civil War: Lieutenant General Richard Taylor, commanding all Confederate forces in Alabama, Mississippi, and eastern Louisiana, surrenders his forces to Union General Edward Canby at Citronelle, Alabama, effectively ending all Confederate resistance east of the Mississippi River. May 5 – In the United States: In North Bend, Ohio (a suburb of Cincinnati), the first train robbery in the country takes place. Jefferson Davis meets with his Confederate Cabinet (14 officials) for the last time, in Washington, Georgia, and the Confederate Government is officially dissolved. May 10 – American Civil War: Jefferson Davis is captured by the Union Army near Irwinville, Georgia. May 12 – Electric equipment and mobile brand Nokia founded in Tampere, Finland. May 12–13 – American Civil War – Battle of Palmito Ranch: In far south Texas, more than a month after Confederate General Lee's surrender, the last land battle of the civil war with casualties, ends with a Confederate victory. May 17 The International Telegraph Union is founded. French missionary Father Armand David first observes Père David's deer in Peking, China.[4] May 23 – Grand Review of the Armies: Union Army troops parade down Pennsylvania Avenue (Washington, D.C.) to celebrate the end of the American Civil War. May 25 – Mobile magazine explosion: 300 are killed in Mobile, Alabama, when an ordnance depot explodes. May 28 – The Mimosa sets sail with emigrants from Wales for Patagonia.[5] May 29 – American Civil War: President of the United States Andrew Johnson issues a proclamation of general amnesty for most citizens of the former Confederacy. June 2 – American Civil War: Confederate forces west of the Mississippi River under General Edmund Kirby Smith surrender at Galveston, Texas, under terms negotiated on May 26, becoming the last to do so. June 10 – Richard Wagner's opera Tristan und Isolde debuts at the Munich Court Theatre. June 11 – Battle of the Riachuelo: The Brazilian Navy squadron defeats the Paraguayan Navy. July 2: Salvation Army June 19 – American Civil War: Union Major General Gordon Granger lands at Galveston, Texas, and informs the people of Texas of the Emancipation Proclamation (an event celebrated in modern times each year as Juneteenth). June 23 – American Civil War: At Fort Towson in Oklahoma Territory, Confederate General Stand Watie, a Cherokee Indian, surrenders the last significant Rebel army. June 25 – James Hudson Taylor founds the China Inland Mission at Brighton, England. June 26 – Jumbo, a young male African elephant, arrives at London Zoo and becomes a popular attraction. June–August – English polymath Francis Galton first describes eugenics.[6] July 4 – Lewis Carroll publishes his children's novel Alice's Adventures in Wonderland in England[7][8] (first trade editions in December). July 5 The U.S. Secret Service is founded. The first speed limit is introduced in Britain: 2 mph (3.2 km/h) in town and 4 mph (6.4 km/h) in the country. July 7 – Following Abraham Lincoln's assassination on April 14, the four conspirators condemned to death during the trial are hanged, including David Herold, George Atzerodt, Lewis Powell and Mary Surratt. Her son, John Surratt, escapes execution by fleeing to Canada, and ultimately to Egypt. July 14 – First ascent of the Matterhorn: The summit of the Matterhorn in the Alps is reached for the first time, by a party of 7 led by the Englishman Edward Whymper; 4 die in a fall during the descent. July 14: Matterhorn climbed. July 30: Steamer Brother Jonathan sinks. July 21 – Wild Bill Hickok – Davis Tutt shootout: In the market square of Springfield, Missouri, Wild Bill Hickok shoots "Little Dave" Davis Tutt dead over a poker debt, in what is regarded as the first true western fast draw showdown. July 23 – The SS Great Eastern departs on a voyage to lay a transatlantic telegraph cable.[7] July 26 – The New Zealand Parliament first meets in Wellington on a permanent basis, making it de facto the national capital.[9] July 27 Welsh settlers arrive in Argentina at Chubut Valley. Businessman Asa Packer establishes Lehigh University in Bethlehem, Pennsylvania. July 30 – The steamer Brother Jonathan sinks off the California coast, killing 225 passengers and crew. July 31 – The first narrow gauge mainline railway in the world opens at Grandchester, Australia. July – The Christian Mission, later renamed The Salvation Army, is founded in Whitechapel, London, by William and Catherine Booth. August 16 – The Dominican Republic regains independence from Spain. August 25 – The Shergotty meteorite Mars meteorite falls in Sherghati, Gaya, Bihar in India. September 19 – Union Business College (now Peirce College) is founded in Philadelphia. September 26 – Champ Ferguson becomes the first person (and one of only two) to be convicted of war crimes for actions taken during the American Civil War, found guilty by a U.S. Army tribunal on 23 charges, arising from the murder of 53 people. He is hanged on October 20, two days after the conviction of Henry Wirz for war crimes.[10] October 11 – Morant Bay rebellion: Paul Bogle leads hundreds of black men and women in a march in Jamaica; the rebellion is brutally suppressed by the British governor Edward John Eyre with 400 executed.[8] October 25 – Florida drafts its constitution in Tallahassee. October 26 The Standard Oil Company opens. The paddlewheel steamer SS Republic sinks off the Georgia coast, with a cargo of $400,000 in coins. November 6 – American Civil War: The CSS Shenandoah, last remnant of the Confederate States of America and its military, surrenders in Liverpool after fleeing westward from the Pacific. November 10 – Captain Henry Wirz, Confederate superintendent of Andersonville Prison (Camp Sumter) is hanged, becoming the second of two combatants, and only serving regular soldier, to be executed for war crimes committed during the American Civil War. November 11 – Duar War between Britain and Bhutan ends with the Treaty of Sinchula, in which Bhutan cedes control of its southern passes to Britain in return for an annual subsidy.[7] November 17 – Chincha Islands War: Action of 17 November 1865 – A Spanish gunboat is captured by the Chilean tugboat Independencia off Tomé, in the Bay of Concepción, Chile. November 26 – Chincha Islands War: Battle of Papudo – The Spanish ship Covadonga is captured by the Chileans and the Peruvians, north of Valparaíso, Chile. December 11 – The United States Congress creates the United States House Committee on Appropriations and the Committee on Banking and Commerce, reducing the tasks of the House Committee on Ways and Means. December 17 – Leopold II becomes King of the Belgians, following the death (on December 10) of his father, King Leopold I. December 18 – Secretary of State William H. Seward declares the Thirteenth Amendment to the United States Constitution ratified by three-quarters of the states, including those in secession. As of December 6, slavery is legally outlawed in the last two slave states of Kentucky and Delaware, and the remaining 45,000 slaves are freed. December 21 – The Kappa Alpha Order is founded at Washington College, Lexington, Virginia. December 24 – Jonathan Shank and Barry Ownby form the Ku Klux Klan in the American South, to resist Reconstruction and intimidate carpetbaggers and scalawags, as well as to repress the freedpeople. Francis Galton. A forest fire near Silverton, Oregon, destroys about one million acres (4,000 km2) of timber. The National Temperance Society and Publishing House is founded by James Black in the U.S. Nottingham Forest Football Club, an association football based in West Bridgford, Nottingham, England, is founded. January 5 – Julio Garavito Armero, Colombian astronomer (d. 1920) January 9 – Leo Ditrichstein, Austrian-born stage actor, playwright (d. 1928) January 19 – Valentin Serov, Russian portrait painter (d. 1911) January 20 – Yvette Guilbert, French cabaret singer, actress (d. 1944) January 27 – Nikolai Pokrovsky, Russian politician, last foreign minister of the Russian Empire (d. 1930) January 28 Lala Lajpat Rai ("The Lion of Punjab"), a leader of the Indian independence movement (d. 1928) Kaarlo Juho Ståhlberg, 1st President of Finland (d. 1952)[11] January 31 – Henri Desgrange, French cycling enthusiast, founder of the Tour de France (d. 1940) February 4 – Ernest Hanbury Hankin, English bacteriologist, naturalist (d. 1939) February 9 – Beatrice Stella Tanner, later Mrs. Patrick Campbell, English theatre actress, producer (d. 1940) February 12 Enrico Millo, Italian admiral and politician (d. 1930)[12] Kazimierz Tetmajer, Polish writer (d. 1940) February 17 – Ernst Troeltsch, German theologian (d. 1923). February 19 – Sven Hedin, Swedish scientist, explorer (d. 1952) February 21 – John Haden Badley, English author, educator (d. 1967) February 28 – Wilfred Grenfell, English medical missionary to Newfoundland and Labrador (d. 1940) Elma Danielsson March 1 – Elma Danielsson, Swedish socialist, journalist (d. 1936) March 10 – Tan Sitong, Chinese reformist leader (d. 1898) March 15 – Sui Sin Far, English-born writer (d. 1914) March 19 – William Morton Wheeler, American entomologist (d. 1937) March 30 – Heinrich Rubens, German physicist (d. 1922) April – Richard Rushall, British sea captain and businessman (d. 1953) April 1 – Richard Adolf Zsigmondy, Austrian-born chemist, Nobel Prize laureate (d. 1929) April 2 – Gyorche Petrov, Macedonian and Bulgarian revolutionary (d. 1921) April 6 – Victory Bateman, American stage and screen actress (d. 1926) April 9 Violet Nicolson, English poet (d. 1904) Erich Ludendorff, German general (d. 1937) Charles Proteus Steinmetz, German-American engineer, electrician (d. 1923) April 14 – Alfred Hoare Powell, English Arts and Crafts architect, and designer and painter of pottery (d. 1960) April 16 – Harry Chauvel, Australian Army general (d. 1945)[13] April 18 – Leónidas Plaza, 16th President of Ecuador (d. 1932) April 26 – Akseli Gallen-Kallela, Finnish artist (d. 1931)[14] April 28 Vital Brazil, Brazilian physician, immunologist (d. 1950) Charles W. Woodworth, American entomologist (d. 1940) Pieter Zeeman King George V of the United Kingdom May 2 – Clyde Fitch, American dramatist (d. 1909) May 3 – Martha M. Simpson, Australian educationalist ((d. 1948) May 23 – Epitácio Pessoa, 11th President of Brazil (d. 1942) May 25 John Mott, American YMCA leader, recipient of the Nobel Peace Prize (d. 1955) Pieter Zeeman, Dutch physicist, Nobel Prize laureate (d. 1943) May 26 – Robert W. Chambers, American artist (d. 1933) June 2 – George Lohmann, English cricketer (d. 1901) June 3 – George V of the United Kingdom (d. 1936) June 9 Albéric Magnard, French composer (d. 1914) Carl Nielsen, Danish composer (d. 1931) June 13 – W. B. Yeats, Irish writer, Nobel Prize laureate (d. 1939) June 19 Alfred Hugenberg, German businessman, politician (d. 1951) May Whitty, British stage and screen actress (d. 1948) June 21 – Otto Frank, German physiologist (d. 1944) June 26 – Bernard Berenson, American art historian (d. 1959) June 29 – Shigechiyo Izumi, Japanese supercentenarian (d. 1986) Philipp Scheidemann Julia Marlowe July 1 – Granville Ryrie, Australian Army general, politician, and diplomat (d. 1937)[15] July 13 – Gérard Encausse, French occultist (d. 1916) July 15 – Alfred Harmsworth, 1st Viscount Northcliffe, Irish-born British publisher; founder of the Daily Mail and Daily Mirror (d.1922) July 23 Max Heindel, Danish-born Christian occultist, astrologer, and mystic (d. 1919) Edward Terry Sanford, Associate Justice of the Supreme Court of the United States (d. 1930) July 26 – Philipp Scheidemann, 11th Chancellor of Germany (d. 1939) August 2 Irving Babbitt, American literary critic (d. 1933) John Radecki, Australian stained glass artist (d. 1955) August 10 – Alexander Glazunov, Russian composer (d. 1936) August 15 – Usui Mikao, Japanese founder of reiki (d. 1926) August 17 – Julia Marlowe, English-born American stage actress (d. 1950) August 20 – Bernard Tancred, South African cricketer (d. 1911) August 22 – Templar Saxe, British actor and singer (d. 1935) August 24 – King Ferdinand I of Romania (d. 1927) August 27 – James Henry Breasted, American Egyptologist (d. 1935) September 4 – Maria Karłowska, Polish Roman Catholic religious professed and blessed (d. 1935) September 11 – Rainis, Latvian poet, playwright (d. 1929) September 13 – William Birdwood, 1st Baron Birdwood, British field marshal (d. 1951) September 26 – Mary Russell, Duchess of Bedford, English aviator, ornithologist (d. 1937) Charles W. Clark Hovhannes Abelian Warren G. Harding Jean Sibelius Rudyard Kipling October 1 – Paul Dukas, French composer (d. 1935) October 9 – Arthur Hayes-Sadler, British admiral (d. 1952) October 10 – Rafael Merry del Val, Spanish Roman Catholic Cardinal and Secretary of the Congregation of the Holy Office (d. 1930) October 12 – Arthur Harden, English chemist, Nobel Prize laureate (d. 1940) October 15 – Charles W. Clark, American baritone (d. 1925) October 16 – Rudolph Lambart, 10th Earl of Cavan, British field marshal (d. 1946) October 17 – James Rudolph Garfield, U.S. politician (d. 1950) October 22 Charles James Briggs, British general (d. 1941) Raymond Hitchcock, American actor (d. 1929) October 23 – Hovhannes Abelian, Armenian actor (d. 1936) October 26 – Benjamin Guggenheim, American businessman (d. 1912) October 27 – Tinsley Lindley, English footballer (d. 1940) November 2 – Warren G. Harding, 29th President of the United States (d. 1923) November 11 – Edwin Thanhouser, American actor, businessman, and film producer, founder of the Thanhouser Company (d. 1956) December 8 Rüdiger von der Goltz, German general (d. 1946) Jean Sibelius, Finnish composer (d. 1957) December 12 – Edwyn Alexander-Sinclair, British admiral (d. 1945) December 16 – Olavo Bilac, Brazilian poet (d. 1918) December 19 – Minnie Maddern Fiske, American stage actress (d. 1932) December 20 – Elsie de Wolfe, American socialite, interior decorator (d. 1950) December 23 Anna Farquhar Bergengren, American author and editor (unknown year of death) James M. Canty, American educator, school administrator, and businessperson (d. 1964)[16] Albrecht, Duke of Württemberg, German field marshal (d. 1939) December 25 Evangeline Booth, 4th General of The Salvation Army (d. 1950) Fay Templeton, American musical comedy star (d. 1939) December 28 – Félix Vallotton, Swiss painter, printmaker (d. 1925) December 30 – Rudyard Kipling, Indian-born English writer, Nobel Prize laureate (d. 1936) Ernest Hogan, African-American dancer, musician, and comedian (d. 1909) Habibullah Qurayshi, Bengali Islamic scholar and educationist (d. 1943)[17] Abraham Lincoln John Wilkes Booth January 14 – Marie-Anne Libert, Belgian botanist (b. 1782) January 19 – Pierre-Joseph Proudhon, French philosopher, anarchist (b. 1809) January 28 – Felice Romani, Italian poet, librettist (b. 1788) February 6 – Isabella Beeton, British cook, household management expert (b. 1836)[18] March 1 – Anna Pavlovna of Russia, queen consort of the Netherlands (b. 1795) March 20 – Yamanami Keisuke, Japanese samurai (b. 1833) March 30 – Alexander Dukhnovich, Russian priest, writer and social activist (b. 1803 April 1 John Milton, Governor of Florida (b. 1807) Giuditta Pasta, Italian soprano (b. 1798) April 2 – A. P. Hill, American Confederate general (b. 1825) April 13 – Achille Valenciennes, French zoologist (b. 1794) April 15 – Abraham Lincoln, 16th President of the United States (b. 1809) April 18 – Léon Jean Marie Dufour, French medical doctor, naturalist (b. 1780) April 24 – Nicholas Alexandrovich, Tsarevich of Russia (b. 1843) April 26 – John Wilkes Booth, American actor, assassin of Abraham Lincoln (b. 1838) April 28 – Sir Samuel Cunard, Canadian businessman, founder of the Cunard Line (b. 1787) May 5 – Ben Hall, Australian bushranger (b. 1837) May 10 – William Armstrong, American lawyer, civil servant, politician, and businessperson (b. 1782)[19] Paul Bogle Henry John Temple Leopold I of Belgium July – Dimitris Plapoutas, Greek military leader (b. 1786) July 6 – Princess Sophie of Sweden, Grand Duchess of Baden (b. 1801) July 7 – The Lincoln assassination conspirators (executed) Lewis Powell (b. 1844) David Herold (b. 1842) George Atzerodt (b. 1835) Mary Surratt (b. 1823) July 25 – James Barry, British military surgeon (b. 1795) August 4 – Percival Drayton, United States Navy officer (b. 1812) August 12 – William Jackson Hooker, English botanist (b. 1785) August 13 – Ignaz Semmelweis, Hungarian physician (b. 1818) August 16 – Sir Frederick Stovin, British army general (b. 1783) August 27 – Thomas Chandler Haliburton, Canadian author (b. 1796) August 29 – Robert Remak, German embryologist, physiologist and neurologist (b. 1815) September 2 – William Rowan Hamilton, Irish mathematician (b. 1805) September 10 – Maria Silfvan, Finnish actor (b. 1802) September 25 – Andrés de Santa Cruz, Peruvian military officer, seventh President of Peru and President of Bolivia (b. 1792) October 16 – Andrés Bello, Venezuelan poet, lawmaker, teacher, philosopher and sociologist (b. 1781) October 18 – Henry John Temple, 3rd Viscount Palmerston, Prime Minister of the United Kingdom (b. 1784) October 24 – Paul Bogle, Jamaican activist, Baptist deacon and leader of the Morant Bay rebellion. (executed) (b. 1820) November 10 – Henry Wirz, Swiss-born American Confederate military officer, prisoner-of-war camp commander (executed) (b. 1823) November 12 – Elizabeth Gaskell, British novelist, biographer (b. 1810) November 28 José Manuel Pareja, Spanish admiral (suicide) (b. 1813) William Machin Stairs, Canadian businessman, statesman (b. 1789) November 29 – Isaac A. Van Amburgh, American animal trainer (b. 1811) December 6 – Sebastián Iradier, Spanish composer (b. 1809) December 10 – King Leopold I of Belgium (b. 1790) December 14 – Johan Georg Forchhammer, Danish geologist (b. 1794) December 17 – Luigi Ciacchi, Italian cardinal (b. 1788) ^ "Kunnallinen itsehallinto 150 vuotta" [150 years of local self-government]. Nopolanews (in Finnish). February 6, 2015. Archived from the original on February 24, 2015. Retrieved February 6, 2024. ^ Moore, Randy (May 2001). "The "Rediscovery" of Mendel's Work" (PDF). Bioscene. 27. Archived from the original (PDF) on February 2, 2017. Retrieved December 6, 2016. ^ Coleman, Helen Turnbull Waite (1956). Banners in the Wilderness: The Early Years of Washington and Jefferson College. University of Pittsbur

the original on 11 May 2008. Retrieved 25 April 2009. ^ "Saudi Arabia – The Saud Family and Wahhabi Islam". Countrystudies.us. Retrieved 25 April 2009. ^ "History". Columbia University. ^ Ricklefs (1991), page 102 ^ "Sufism in the Caucasus". Islamicsupremecouncil.org. Archived from the original on 23 February 2009. Retrieved 25 April 2009. ^ "Table A – Verified Supercentenarians (Listed Chronologically By Birth Date)". Archived from the original on 12 July 2016. Retrieved 9 November 2016. ^ Photo Gallery for Supercentenarians born before 1850, as of May 17, 2019 ^ Balfour-Pau, Glen (20 December 2005). Bagpipes in Babylon: A Lifetime in the Arab World and Beyond. I.B.Tauris, 2006. ISBN 9781845111519. ^ "The Harvey Family". Priaulx Library. 2005. Archived from the original on 22 October 2013. ^ "Yellow Fever Attacks Philadelphia, 1793". EyeWitness to History. Archived from the original on 7 June 2007. Retrieved 22 June 2007. ^ Riedel S (2005). "Edward Jenner and the history of smallpox and vaccination". Proc (Bayl Univ Med Cent). 18 (1): 21–5. doi:10.1080/08998280.2005.11928028. PMC 1200696. PMID 16200144. ^ Ricklefs (1991), page 106 ^ Encyclopædia Britannica's Great Inventions, Encyclopædia Britannica Archived August 7, 2008, at the Wayback Machine ^ Meggs, Philip B. A History of Graphic Design. (1998) John Wiley & Sons, Inc. p 146 ISBN 978-0-471-29198-5 Black, Jeremy and Roy Porter, eds. A Dictionary of Eighteenth-Century World History (1994) 890pp Klekar, Cynthia. "Fictions of the Gift: Generosity and Obligation in Eighteenth-Century English Literature." Innovative Course Design Winner. American Society for Eighteenth-Century Studies: Wake Forest University, 2004. . Refereed. Langer, William. An Encyclopedia of World History (5th ed. 1973); highly detailed outline of events online free Morris, Richard B. and Graham W. Irwin, eds. Harper Encyclopedia of the Modern World: A Concise Reference History from 1760 to the Present (1970) online Milward, Alan S, and S. B. Saul, eds. The economic development of continental Europe: 1780–1870 (1973) online; note there are two different books with identical authors and slightly different titles. Their coverfage does not overlap. Milward, Alan S, and S. B. Saul, eds. The development of the economies of continental Europe, 1850–1914 (1977) online The Wallace Collection, London, houses one of the finest collections of 18th-century decorative arts from France, England and Italy, including paintings, furniture, porcelain and gold boxes. Media related to 18th century at Wikimedia Commons Retrieved from " 4 The following pages link to 18th century External tools (link count transclusion count sorted list) · See help page for transcluding these entries Showing 50 items. View (previous 50 | next 50) (20 | 50 | 100 | 250 | 500)List of decades, centuries, and millennia (links | edit) Goths (links | edit) Industrial espionage (links | edit) Romania (links | edit) 20th century (links | edit) 15th century (links | edit) 16th century (links | edit) 17th century (links | edit) 1870s (links | edit) 1624 (links | edit) 1626 (links | edit) 1642 (links | edit) 1661 (links | edit) 1756 (links | edit) 1791 (links | edit) 1608 (links | edit) 1818 (links | edit) 1743 (links | edit) 1826 (links | edit) 1828 (links | edit) 14th century (links | edit) 1860s (links | edit) 1788 (links | edit) 1st century (links | edit) 13th century (links | edit) 1787 (links | edit) 1863 (links | edit) 4th century (links | edit) 12th century (links | edit) 11th century (links | edit) 1859 (links | edit) 1900 (links | edit) 1848 (links | edit) 1866 (links | edit) 1896 (links | edit) 1895 (links | edit) 1861 (links | edit) 1648 (links | edit) 1623 (links | edit) 1662 (links | edit) 1640s (links | edit) 1770s (links | edit) 1780s (links | edit) 1789 (links | edit) 1782 (links | edit) 1840 (links | edit) 1840s (links | edit) 1883 (links | edit) 1800s (decade) (links | edit) 1801 (links | edit) View (previous 50 | next 50) (20 | 50 | 100 | 250 | 500) Retrieved from " WhatLinksHere/18th_century" Want to give your brand videos a cinematic edge? Join our visual experts and special guests for an info-packed hour of insights to elevate your next video project. Tune in on June 24 at 11am ET.Register NowEnjoy sharper detail, more accurate color, lifelike lighting, believable backgrounds, and more with our new model update. Your generated images will be more polished than ever.See What's NewExplore how consumers want to see climate stories told today, and what that means for your visuals.Download Our Latest VisualGPS ReportWant to give your brand videos a cinematic edge? Join our visual experts and special guests for an info-packed hour of insights to elevate your next video project. Tune in on June 24 at 11am ET.Register NowEnjoy sharper detail, more accurate color, lifelike lighting, believable backgrounds, and more with our new model update. Your generated images will be more polished than ever.See What's NewExplore how consumers want to see climate stories told today, and what that means for your visuals.Download Our Latest VisualGPS ReportWant to give your brand videos a cinematic edge? Join our visual experts and special guests for an info-packed hour of insights to elevate your next video project. Tune in on June 24 at 11am ET.Register NowEnjoy sharper detail, more accurate color, lifelike lighting, believable backgrounds, and more with our new model update. Your generated images will be more polished than ever.See What's NewExplore how consumers want to see climate stories told today, and what that means for your visuals.Download Our Latest VisualGPS Report Perhaps you've seen someone dowsing or tried it yourself. Some people use a Y-shaped twig or rod to find buried pipelines, leaks or places in the ground with a lot of water.Above the place where water is suspected to be, the rod pulls towards the ground, as if being drawn by a mysterious force. What is actually happening here?Svein Tømmerdal from Leksvik in Trøndelag county is one of the people who find water with dowsing rods. He prefers to use birch, because it is tougher.He explains that he holds the twig ends in front of him with a firm grip, with his thumbs out to the side.“If I come across water, the twig goes up for me. For some dowsers, it goes down.” “You have to have a fairly firm grip. The twig twists the bark, at least in the spring,” Tømmerdal says.Tømmerdal can find veins with water or good places to build a well using the dowsing rod.He also says he is able to precisely measure the depth of the veins with the help of the rod. He takes a few steps to the side, and when the twig dips again, he can calculate the depth by imagining a right-angled triangle.Tømmerdal believes that there must be an explanation for what makes the rod move. Not everyone who tries dowsing gets a reaction.“We must have something in us that receives the radiation or the energy,” he says, wondering.Could there be something to dowsing?Arnt Inge Vistnes has also wondered what it is that makes someone get dowsing results. He is one of only a few people in Norway to have researched dowsing.Is there anything special in the places where it happens? Or, he wondered, could it have something to do with magnetic or electric fields that affect the body?Perhaps some people are sensitive enough to notice these forces?Vistnes had the requisite background to find some answers. He is a physicist and now professor emeritus at the University of Oslo.Dowsing was not an unknown concept for him.“My grandfather did it in a big way and my great-grandfather did too. You could say it’s in the family,” Vistnes says. Dowsing is an old tradition. Here is an illustration from the 18th century. (Image: Thomas Pennant / Wikimedia Commons) Earth ray radiationVistnes' great-grandfather was a naturopath. So was his grandfather, who was called "Second Sage." He used a dowsing rod to detect the earth’s radiation. He would neutralize the earth rays in an area to alleviate health ailments. Earth radiation is a non-scientific term that has been used to explain what causes a dowsing rod to locate water. It has been suggested that earth radiation occurs where there are water veins. Arnt Inge Vistnes' grandfather, Alv Vistnes, was an experienced dowser. (Photo: Private) Others have suggested that earth ray radiation is like an underground net, independent of water, and that it has an impact on health.“My grandfather had so-called supernatural abilities and in a way was the ‘man with warm hands’ of the time. He had a lot of success with dowsing,” says Vistnes.Caught his grandfather red-handedVistnes himself had mixed feelings about the practice.“I caught my grandfather red-handed once as a child when he was going to neutralize earth rays.”He was going to demonstrate a new and effective remedy at my father's home. He said that there were two ways it could be set up: one worked, the other did not.First he set it up so that it didn’t work.“When he walked through the house he found earth radiation the whole way,” says Vistnes.“Then my grandfather set it up so that it should work. When he walked around he found no earth radiation in the house.”“What he didn’t know was that I had switched things around so that it wouldn’t work.”Initiated experimentVistnes reflected on the episode afterwards.“At the same time, this whole matter sat so deep in me, that even though I was a little sceptical, I believed that there might still be something there,” he says.Vistnes recently wrote about his experiences in the latest issue of the journal Fra fysikkens verden (From the World of Physics), which is published by the Norwegian Physical Society.In the 1980s, he set up a large-scale experiment.Vistnes first wanted to find out whether dowsers would actually find earth radiation in the same places. Afterwards, his plan as a physicist was to investigate whether there was anything special about the places the majority of dowsers had pointed out. Arnt Inge Vistnes is Professor Emeritus at the University of Oslo. (Photo: Private) Could it be that they were discovering places with weak electric and magnetic fields, for instance?No one agreedTwenty-five well-known dowsers joined the experiment. They conducted a survey in one corridor. The zones where the dowsers had a reaction were noted. The experiment was double-blind, and the subjects were not told where the others had found something.It turned out that the dowsers found earth rays in completely different locations.“When you have 25 dowsers that go out and none of their findings overlap, I just had to shelve the project,” says Vistnes.Investigating whether anything was physically different about the places that had been marked was pointless, since the experiment didn’t show any agreement on where these places were.The experiment wasn’t published. But Vistnes has now written an article about it in the journal Fra fysikkens verden.Anders Bærheim, Steinar Hunskår and Bjørn Bjorvatn reported about a similar experiment in the journal Tidsskrift for den norske legeforening. Four experienced dowsers searched for patterns of earth rays in a gymnasium. No agreement resulted between their findings.Vistnes also did a lot of research from 1987 to 2005 on whether electric fields could affect people’s health and work environments. He was interested in electromagnetic hypersensitivity and initially wondered if it might be related to dowsers’ experiences. Erik Tunstad has been interested in the dowsing phenomenon. (Photo: Arnfinn Pettersen) “I’ve actually come to the conclusion that there isn’t much to either electrical hypersensitivity or dowsing,” he says.Dig deep enough and you can usually find waterErik Tunstad is a biologist, author and non-fiction writer. He was the editor of forskning.no (the Norwegian version of sciencenorway.no) from 2002 to 2009. He is familiar with dowsing, but from a sceptical perspective. He co-founded the organization Skepsis in 1989.Over the years, Skepsis has attacked pseudoscience and claims of supernatural phenomena.“I’ve been interested in the topic, so I’ve spent time with people who have been looking for water. They often find it,” says Tunstad.“I’ve often been impressed and thought how strange it was. The dowsers were incredibly precise. But then you can say, ok, what if he’d dug over there instead, would he still have found water?”“The problem is that you can dig just about anywhere you want in Norway, and if you go deep enough, you’ll find water,” he says.Water veins?“Dowsing is based on a notion that water runs in veins,” says Tunstad.But most of the time it doesn’t.Groundwater is the part of the subsoil where cracks and pore spaces are all completely filled with water, according to Store Norske leksikon, the Norwegian online encyclopaedia.Groundwater is everywhere, but in different amounts, says hydrogeologist Atle Dagestad at the Norwegian Geological Survey (NGU).“In Norwegian bedrock, groundwater is mostly found in cracks and weak zones, because we don’t have larger areas of sedimentary rocks with primary porosity where the groundwater can flow,” says Dagestad.The amount of groundwater can be particularly large in weak zones in the bedrock, where bigger tectonic movements lead to the rock being crushed.Groundwater rarely flows in veins in the subsoil,” says Dagestad. It occurs more in areas where the bedrock consists of limestone.“In Norway, this kind of bedrock is found in the Svartis area in the north, which is known for its numerous big limestone caves, and where there can occasionally be significant water flow.”“In sediment deposited by rivers or glaciers from earlier times, some layers have better water flow properties than others. But we don’t find a lot of water veins in Norway,” Dagestad says.A million dollarsAlong with joining water dowsers in the field, Tunstad has observed and arranged tests, where dowsers’ abilities have been tested using scientific methods. Magician James Randi arranged tests with people who thought they could find water with a dowsing rod. No one was able to prove its efficacy. (Photo: James Randi Educational Foundation / CC BY-SA 3.0) The results have been clear.“Whenever researchers have systematically gone in, they’ve found that water dowsers don’t have this ability,” Tunstad says.James Randi was a magician, a writer and a sceptic who passed away last year. He is known for launching the One Million Dollar Paranormal Challenge. The person who could prove that they have supernatural abilities would receive $10 000. Later, the prize was raised to one million dollars.Randi’s challenges have included experiments with dowsers. None of them has been able to prove that they have the ability to find water or other objects with dowsing rods.No better than flipping a coinTunstad joined Randi for an experiment in Finland in the 1980s.“There was a dowser who’d made his living from finding water,” he said.Now the dowser wanted to test his abilities, and he and Randi agreed on the terms.“First, Randi set out a container of water. The water dowser could see the water, and when he tested it with his rod, it dipped strongly. No one could say that the rod wasn’t working that day, or that the dowser was in poor shape.”Next, the water was placed where it wasn’t visible. Containers that either held water or were empty were hidden in boxes. Neither Randi nor any of the other involved parties knew whether the rod was dipping over a full or an empty water container.“We did this all day long. Only when the results came in were we told that the dowser had only found water around 50 per cent of the time, about the same result as he would have had if he’d flipped a coin,” says Tunstad.You can watch a video of the experiments arranged by James Randi with dowsers in Australia here. Metal L-rods are sometimes used instead of Y-rods or twigs. (Photo: Alexandre Linon / Shutterstock / NTB) Mining and treasure huntingSome people use a pendulum or L-shaped metal rods, instead of a Y-rod or twig to look for the hidden items.In addition to searching for water, people have used rods to find other things, such as burial sites and metals.When did dowsing start?Johannes Dillinger is a professor of early modern history at Oxford Brookes University and has researched the history of the dowsing rod.He says the dowsing rod appeared in the late Middle Ages in Germany in connection with the mining industry.The book De re metallica is a textbook on mining from 1556 and is one of the earliest known texts that mention dowsing.The author, Georgius Agricola, wrote that rods were sometimes used to find mineral veins. But he wasn’t positive about the practice, says Dillinger.“He rejected the idea, saying it’s below the dignity of a decent miner to use dowsing,” Dillinger said.Its use became more widespread in the 17th century, then mainly as a tool for finding hidden treasures.“Treasure hunting was actually the most important use of dowsing rods in the pre-modern period,” Dillinger says. Woodcuts from the book De re metallica from 1556 show people using dowsing rods in connection with mining. (Image: Wikimedia Commons) Water dowsing wasn’t importantThe practice was never generally accepted, says Dillinger.“Certain schools or courses for miners included dowsing in the instruction, but the practice was always very controversial.”Water dowsing wasn’t important, he says.“Finding water wasn’t really a problem. Most of Europe has plenty of water. There wasn’t any point in looking for water.”The use of rods to find water was mentioned early on but did not become widespread until later.The phenomenon of dowsing has been attributed to three main ideas over time, says Dillinger.The first explanation is that dowsing was a form of magic. The second is that the dowser is sensitive to what he or she is looking for, and the rod provides a way to focus. The third is that mineral veins, for example, emit something that physically affects the rod. ‘Man showing water’ is a painting by the Danish artist Hans Smidth (1839 - 1917). (Image: Wikimedia Commons) L-rods used in avalanche searchFew studies exist showing that dowsing actually works. But experiments have been conducted.A study published in the journal Nature from 1971 was undertaken by the Ministry of Defence in the UK, and found no support that using dowsing rods works. Tests were also carried out to see whether dowsers could find mines and water.Norwegian researchers Rolf Manne and Steinar Bakkehøi carried out an experiment in 1987. Manne had reacted to the Red Cross promoting the use of forked rods or L-rods to find people who had been buried by avalanches. In 1986, 31 soldiers were caught in an avalanche in Vassdalen in Northern Norway, and 16 perished. Dowsing rods were among the tools used to find them.The Norwegian Armed Forces invited Manne to take part in a scientific experiment in which a soldier was (safely) buried.Four dowsers with extensive experience and two teams of quickly trained soldiers tried to find the buried individual. Nobody did.‘The Armed Forces concluded from this that dowsing is of no value in avalanche searches, and the method was abandoned,’ Manne wrote in the series Psevdovitenskap og etikk (Pseudoscience and Ethics), published by NTNU.Underground water pipesIn 1991, an experiment was carried out in Kassel, Germany by the German sceptical organization GWUP. Twenty dowsers participated.A pipe was dug into the ground, with the water supply to the pipe turned either on or off. The participants had to find out whether there was water in the pipe or not with the help of a dowsing rod. The dowsers did 30 tests each.The results were no better than what you would expect from random guessing. The experiment has not been published in a scientific journal, but was described in an article in the magazine Skeptiker in 1991. Controlled experiments have not yielded any better results than what you would expect by chance. (Illustrative image: Grandpa / Shutterstock / NTB) German experimentsA 1995 report written by Hans-Dieter Betz from Germany provided support for the use of dowsing. The company Deutsche Gesellschaft fur Technische Zusammenarbeit (GTZ) dug wells in arid areas with support from the German authorities. Dowsing was among the approaches they used.According to Betz, the results from Sri Lanka were particularly impressive, where the dowser found water in over 90 per cent of the cases. He wrote that a success rate of 30 to 50 per cent would be expected based on the geological conditions.However, controlled experiments that Hans-Dieter Betz helped conduct did not yield the same result.In the late 1980s, 500 water dowsers underwent tests in Germany. The 43 with the best results were selected for further tests.The water dowsers were to locate a pipe with running water. The water pipe was on the ground floor of a barn, and the dowsers searched on the second floor.Of the selected candidates, 37 only attained results that matched random chance. Six had slightly better results, according to Wikipedia. The researchers believed this was proof that the dowsing phenomenon was valid.Jim T. Enright, a professor of behavioural physiology, did a critical analysis of the experiments.Enright criticized the researchers’ analysis and believed that the results of the best were also due to chance. According to him, the study was ‘the most convincing disproof imaginable that dowsers can do what they claim.’ Some people use dowsing rods to point out good places to build wells. (Photo: TTphoto / Shutterstock / NTB) Build skills from experienceHydrogeologist Dagestad believes that individuals who succeed at dowsing can be good at reading the terrain and the local hydrogeological conditions.“I think they’re good at observing where in the terrain the probability of finding groundwater is good, and over time they gain experience with where to look for water.”Tunstad concurs and says that the rod might be a tool to help with concentration.“I would say that their brains are what solve the terrain. That’s been shown through the blind tests. It's not the twig, it's the brain,” he says.Dagestad adds that most of Norway has a lot of rainfall throughout the year, which makes it less demanding to find groundwater for individual households and smaller water supply facilities.In the past, it was perhaps useful for a stranger to give advice on where to dig a well, says Dagestad.“Digging down to the groundwater probably took several days, and it wasn’t completely safe either. If half the village was needed to dig, then they’d be less likely to start arguing among themselves if an outside expert had pointed out a suitable location for a well,” he says.“The probability of finding water is greater if you dig down a few more metres.”Rod tips out of equilibriumPhysicist Vistnes says the rod is kept in a state called unstable equilibrium. Small unconscious movements of the hand can cause it to move out of position.“This means that it only takes very little for the rod to react. It may seem that it dips really strongly. But that power really is only coming from you keeping the rod tense yourself,” says Vistnes.“If you hold this belief, along with a rod in unstable equilibrium, then what you think and hope can also contribute to these effects.”“It’s been an interesting journey through this landscape. I have to say that. But I’ve probably ended up without any faith in the dowsing phenomenon,” Vistnes says.Power of thought has no effectTømmerdal, who is a dowser himself, still has no doubt that using a dowsing rod works.“Of course, scientists are against something they themselves can’t see, touch or measure with their instruments,” he says.Tømmerdal disagrees with Vistnes that the effects on the rod come from small movements and the way it is held.“That's just nonsense. There’s no point in controlling or making small unconscious movements to force the rod, in my case, to go up,” says Tømmerdal.He points out that dowsers clearly look at the terrain, but that’s not the main point.“When we come across a water vein, water pipes or electrical wires underground, the power of thought doesn’t help,” he says.“Those of us who know how dowsing works, know that it’s real!”References:Arnt Inge Vistnes: Ønskekvistfenomenet – del 1: En personlig beretning om en pussig folketradisjon, Fra fysikkens verden, number 3, 2021.Arnt Inge Vistnes: Ønskekvistfenomenet – del 2: Rapport fra en vitenskapelig studie, Fra fysikkens verden, number 4, 2021.Anders Bærheim et.al.: Jordstråler – et begrep uten vitenskapelig grunnlag. Tidsskr Nor Lægeforen, 2006.Erik Tunstad: Duell ved soloppgang. Skepsis dokument: Søkevinkler, Skepsis, number 3, 1992.R. A. Foulkes: Dowsing Experiment. Nature, 1971. (Summary)Rolf Manne: Ønskekvist i snøskred – psevdovitenskap i praksis?. May Thorseth (Red.), Psevdovitenskap og etikk, NTNU, 2005.Hans-Dieter Betz: Unconventional Water Detection: Field Test of the Dowsing Technique in Dry Zones: Part l. Journal of Scientific Exploration, 1995.J. T. Enright: Water Dowsing: the Scheunen Experiments. Naturwissenschaften, 1995.J. T. Enright: Testing Dowsing: The Failure of the Munich Experiments. Skeptical Inquirer, 1999.H. -D. Betz et.al.: Dowsing reviewed — the effect persists. Naturwissenschaften, 1996.Robert Konig et.al.: The Kassel Dowsing Test: Part 1. Skeptiker, 1991. republished on Geotech.Robert Konig et.al.: The Kassel Dowsing Test: Part 2. Skeptiker, 1991. republished on Geotech.———Translated by Ingrid NuseRead the Norwegian version of this article at forskning.no Category: Earth Science Published: April 15, 2015 By: Christopher S. Baird, author of The Top 50 Science Questions with Surprising Answers and Associate Professor of Physics at West Texas A&M University When an object, such as a marble on a roof ridge, is in a state of unstable equilibrium, a small movement (such as the breeze nudging the marble to one side) becomes a large movement (such as the marble shooting off one side of the roof). This event could be misinterpreted as a powerful, hidden agent on one side of the house drawing the marble towards it. The belief in water dowsing arises out of this type of misinterpretation. Public Domain Image, source: Christopher S. Baird. In the sense that it finds underground water, water dowsing does not work. Water dowsing involves the claim that a person can locate underground sources of water without using any scientific instruments. Typically, the person that is dowsing holds sticks or rods and walks around a property in the hopes that the rods will dip, twitch, or cross when he walks over the underground water. The dowsing rods do indeed move, but not in response to anything underground. They are simply responding to the random movements of the person holding the rods. The rods are typically held in a position of unstable equilibrium, so that a small movement gets amplified into a big movement. The movements of the rods do not seem like they are coming from the small vibrations in the dowser's arms, since these vibrations are so small and the rod's movements are so large. From the false assumption that the movements of the rods are not coming from the small random vibrations of the dowser's arms, people then make the illogical leap that the movements must therefore be caused by something powerful that is out of sight, i.e. underground water. Since successfully locating underground water can save a farmer the trouble of digging several wells that end up dry, and since scientific approaches can be expensive, there is a strong incentive for people to want water dowsing to work. Unstable equilibrium describes a state where all the forces on an object cancel out but the slightest deviation from the point of equilibrium causes the object to fly off. For instance, if you place a marble on exactly the top edge of a sharply-ridged roof, the marble will sit there motionless since the forces pulling it down either side of the roof cancel out. However, if the slightest breeze blows past the marble, it will give the marble a small bump toward one side of the roof. The forces will no longer cancel and the marble will shoot down one side of the roof. Since the marble was in a state of unstable equilibrium, gravity was able to amplify a small movement invisible to humans (the bump from the gentle breeze) into a large movement (the marble rolling down the side of the roof). To the naked human eye, it looks like a power agent exists only on one side of the house and is drawing the marble towards it. If we didn't understand the concept of unstable equilibrium, we may be tempted to say that there is underground water only on the one side of the house which pulled the marble down that side. Belief in water dowsing operates on this type of misunderstanding. In many areas of the world, water dowsing seems to really work. In such areas, the location that the dowser points out indeed leads to a productive well. However, such areas of the world have so much groundwater close to the surface that any location will yield a productive well. The situation is like filling a box with only green socks and then asking a magician to close his eyes and use his magic powers to find a green sock in the box. If a system is secretly rigged for 100% success from the start, any method we use will seem successful. The U.S. Geological Survey states, "The natural explanation of ‘successful' water dowsing is that in many areas underground water is so prevalent close to the land surface that it would be hard to drill a well and not find water. In a region of adequate rainfall and favorable geology, it is difficult not to drill and find water!" The belief in dowsing typically involves the misunderstanding that underground water consists of large underground rivers flowing through caverns. In this thinking, one spot on a farm would be a good location to drill a well because it is lined up with the underground river, whereas another spot 20 feet away would be a bad location since it misses the underground river. In reality, most underground water does not flow in rivers but instead flows everywhere through the tiny pores and cracks in the rocks. In any climate that receives a moderate amount of rainfall, you will always hit water if you dig deep enough. Therefore, the question to ask is not, "What spot on my farm has water underneath it?" Every spot has water underneath it. The right question to ask is, "How deep will I have to dig to get below the water table?" Another important question to ask when drilling a well is, "Does my ground contain the right kind of rock that will release its water fast enough to fill my well?" Even if there is water in the ground, a dense rock with small pores may release its water too slowly to be useful. Various controlled scientific studies over the last hundred years have repeatedly found that water dowsing does not work. For instance, 30 "expert" dowsers were invited to Kassel, Germany in 1990 to have their abilities tested in a study organized by James Randi. Pipes carrying flowing water were buried underground at known locations and the dowsers were tested as to their ability to determine if water was flowing through the pipes. All failed to do better than random guessing. In the book Carl Sagan's Universe, edited by Yervant Terzian and Elizabeth Bilson, James Randi describes the tests: While we were there we designed a series of tests, as I have done in many countries around the world, to test the forked stick or the pendulum or the coat hanger wires or whatever. Some people do it with their hands. And we did it in Kassel, Germany, two years ago, a very definitive set of tests, and, of course, it proved that the law of averages works quite well, but dowsing doesn't. Topics: dowsing, groundwater, hydrology, unstable equilibrium, water, water dowsing Many water witches back in the day used nothing more than a forked stick (aka a dowsing rod) to search for groundwater because they believed that these were simply channels for their power. U.S. Geological Survey You may have seen the water witch in popular culture. Divining rod in front, wandering arid land until, somewhat magically and often with the hint of help from some otherworldly power, the witch and the wand divine a spot in the dirt where life-giving water, at some depth underground, waits to be liberated. It may sound like some rather hokey hocus-pocus, or something from, say, 500 years ago. But by one estimate, some 60,000 water dowsers are practicing in America today. That's almost 10 times the number of hydrologists, who provide many of the same services as witches, substituting science for dowsing rods. Not all water witches use the forked branch of a tree these days, of course. Many dowsers locate the underground water based on movement of divining rods. Copper rods and pendulums are popular tools of the trade. Smartly contorted wire coat hangers might do the trick. Shovels. Pitchforks. Glass beads. A crowbar. These are simply channels for the power. And not all dowsers go about their groundwater search the same way. Some actually incorporate science into their divining; they look at the topography of the land, the geology. They use maps. They may even have an understanding of local aquifers. They make drawings. Do tests. All rely on some kind of unseen, perhaps divine, intervention to suss out the water. It's an innate ability, a "sense" or "intuition." Sometimes it's simple and quiet. Sometimes it's more theatrical. "You can see some of these folks performing on YouTube," Jarvis says. "Their bodies go into all sorts of contortions." The thing is, water witches are often right. Or close enough to right. The United States Geological Survey (USGS) has long had to field questions about the viability of dowsers and their claims. Yet even the USGS admits that dowsers — water witches, whatever — can find water. How? From the USGS: The natural explanation of "successful" water dowsing is that in many areas water would be hard to miss. The dowser commonly implies that the spot indicated by the rod is the only one where water could be found, but this is not necessarily true. In a region of adequate rainfall and favorable geology, it is difficult not to drill and find water!