

Timeline of Photography Technology



1725

Johann Heinrich Schulze makes fleeting "photographs" of words by using stencils, sunlight, and a bottled solution of chalk and silver nitrate.



EDMOND BECQUEREL MAKES THE FIRST FULL-COLOR PHOTOGRAPHS, but they are only laboratory curiosities: AN EXPOSURE LASTING HOURS OR DAYS IS REQUIRED AND THE COLORS ARE SO LIGHT-SENSITIVE THAT THEY SOMETIMES FADE RIGHT BEFORE THE VIEWER'S EYES WHILE BEING EXAMINED.

NICÉPHORE NIÉPCE MAKES WHAT IS NOW THE EARLIEST SURVIVING PHOTOGRAPH FROM NATURE. It requires an exposure in the camera that lasts of at least eight hours and probably several days.

The gelatin emulsion is invented by Richard Madox.

Auguste and Louis Lumière invent the cinématographe.

heat ripening of gelatin emulsions discovered, greatly increasing sensitivity and making very short "snapshot" exposures possible. Eadweard Muybridge uses a row of cameras with tripwires to make a high-speed photographic analysis of a galloping horse. EACH PICTURE IS TAKEN IN LESS THAN THE TWO-THOUSANDTH PART OF A SECOND, AND THEY ARE TAKEN IN SUFFICIENTLY RAPID SEQUENCE (ABOUT 25 PER SECOND) THAT THEY CONSTITUTE A BRIEF REAL-TIME "MOVIE" that can be viewed by using a device such as a zoetrope—a photographic "tirst".

Louis Ducos Du Hauron patents his numerous IDEAS FOR COLOR PHOTOGRAPHY BASED ON THE THREE-COLOR PRINCIPLE, including procedures for making subtractive color prints on paper. Their implementation anticipate most of the color processes that are later introduced.

NICÉPHORE NIÉPCE MAKES THE FIRST DURABLE, LIGHTFAST CAMERA PHOTOGRAPH, on pewter but created on the surface of a lithographic stone.

GABRIEL LIPPYMAN ANNOUNCES A "METHOD OF REPRODUCING COLORS PHOTOGRAPHICALLY BASED ON THE PHENOMENON OF INTERFERENCE". William Kennedy Laurie Dickson develops the "kinescopic" motion picture camera while working for Thomas Edison.

James Clerk Maxwell presents a projected additive color image of a multicolored ribbon. It uses three separate black-and-white photographs taken and projected through red, green and blue color filters. THE PROJECTED IMAGE IS TEMPORARY BUT THE SET OF THREE "COLOR SEPARATIONS" IS THE FIRST DURABLE COLOR PHOTOGRAPH.

HENRY FOX TALBOT INTRODUCES HIS PATENTED CALOTYPE PAPER NEGATIVE PROCESS, an improved version of his earlier process that greatly reduces the required exposure time.

NICÉPHORE NIÉPCE SUCCEEDS IN MAKING NEGATIVE PHOTOGRAPHS OF CAMERA IMAGES ON PAPER COATED WITH SILVER CHLORIDE, but cannot adequately "fix" them to stop them from darkening all over when exposed to light for viewing.

CELLULOID FILM BASE INTRODUCED.

Introduction of the collodion process by Frederick Scott Archer, used for making glass negatives, ambrotypes and tintypes.

THE KODAK N°1 BOX CAMERA, THE FIRST EASY-TO-USE CAMERA, IS INTRODUCED WITH THE SLOGAN "YOU PRESS THE BUTTON, WE DO THE REST." Louis Le Prince makes Roundhay Garden Scene, believed to be the first motion picture on film ever made.

Kodak introduces the Folding Pocket Kodak.

HENRY FOX TALBOT PRODUCES DURABLE SILVER CHLORIDE CAMERA NEGATIVES ON PAPER AND CONCEIVES THE TWO-STEP NEGATIVE-POSITIVE PROCEDURE used in most non-electronic photography up to the present.

André-Adolphe-Eugène Disdéri USES A CAMERA WITH MULTIPLE LENSES THAT CAN PHOTOGRAPH EIGHT DIFFERENT POSES ON ONE LARGE NEGATIVE. After printing on albumen paper (carte de visite format for portraiture), the images are cut apart and glued to calling-card-size mounts.

THE FIRST COMMERCIALY AVAILABLE TRANSPARENT CELLULOID ROLL FILM IS INTRODUCED BY THE EASTMAN COMPANY, later renamed the eastman kodak company or KODAK.

HERMANN WILHELM VOGEL DISCOVERS DYE SENSITIZATION, ALLOWING THE BLUE-SENSITIVE BUT OTHERWISE COLOR-BLIND PHOTOGRAPHIC EMULSIONS THEN IN USE TO BE MADE SENSITIVE TO GREEN, YELLOW AND RED LIGHT (Technical problems delay a commercial product).

LOUIS DAGUERRE PUBLICLY INTRODUCES HIS DAGUERRETYPE PROCESS, which produces highly detailed permanent photographs on silver-plated sheets of copper. At first, it requires several minutes of exposure in the camera, BUT LATER IMPROVEMENTS REDUCE THE EXPOSURE TIME TO A FEW SECONDS.

Hurter & Driffield begin systematic evaluation of sensitivity characteristics of photographic emulsions - THE SCIENCE OF SENSITOMETRY.

NICÉPHORE NIÉPCE ABANDONS SILVER HALIDE PHOTOGRAPHY AS HOPELESSLY IMPERMANENT AND TRIES USING THIN COATINGS OF BITUMEN OF JUDAEA ON METAL AND GLASS.

THOMAS WEDGWOOD CONCEIVES OF MAKING PERMANENT PICTURES OF CAMERA IMAGES by using a durable surface coated with a light-sensitive chemical.



1997 - FIRST KNOWN PUBLICLY SHARED PICTURE VIA A CELL PHONE, BY PHILIPPE KAHN.

1996 - Eastman Kodak, FujiFilm, AgfaPhoto, and Konica INTRODUCE THE ADVANCED PHOTO SYSTEM (APS).

1994 - Nikon introduces the first optical-stabilized lens.

1993-95 - The Jet Propulsion Laboratory develops devices using CMOS or active pixel sensors.

1986 - Kodak scientists invent the world's first megapixel sensor.

1976 - STEADICAM BECOMES AVAILABLE.

1973 - Fairchild Semiconductor releases the first large image forming CCD chip: 100 rows and 100 columns of pixels.

1975 - Bryce Bayer of Kodak develops the Bayer filter mosaic pattern for CCD color image sensors.

1963 - Kodak introduces the Instamatic.

1964 - First Pentax Spotmatic SLR introduced.

1957 - First Asahi Pentax SLR introduced. First digital computer acquisition of scanned photographs, by Russell Kirsch et al. at the U.S. National Bureau of Standards.

1959 - NIKON F INTRODUCED.

AGFA introduces the first fully automatic camera, the Optima.

1954 - LEICA M INTRODUCED

1952 - Bwana Devil, a low-budget polarized 3-D film, premieres in late November and starts a brief 3-D craze.

1949 - The Contax S camera is introduced, the first 35 mm SLR camera with a pentaprism eye-level viewfinder.

1948 - The Hasselblad camera is introduced. EDWIN H. LAND INTRODUCES THE FIRST POLAROID INSTANT CAMERA.

1947 - Dennis Gabor invents holography. Harold Edgerton develops the Rapatronic camera for the U.S. government.

1942 - Kodacolor, the first color film that yields negatives for making chromogenic color prints on paper. Roll films for snapshot cameras only, 35 mm not available until 1958.

1939 - Agfacolor negative and positive 35 mm color film stock for professional motion picture use. The View-Master 3-D viewer and its "reels" of seven small stereoscopic image pairs on Kodachrome film are introduced.

1936 - Introduction by IHAGEE of the Ihagee Kine Exakta 1, the first 35 mm SLR camera. Agfacolor Neu color reversal film for home movies and slides.

1935 - Becky Sharp, the first feature film made in the full-color "three-strip" version of Technicolor, is released. Introduction of Kodachrome multi-layered color reversal film 16 mm only.

1934 - The 135 film cartridge is introduced, making 35 mm easy to use for still photography.

1932 - The first full-color cartoon, Flowers and Trees, is made in Technicolor by Disney. First 8 mm amateur motion picture film, cameras, and projectors are introduced by Kodak.

1926 - Kodak introduces its 35 mm Motion Picture Duplicating Film for duplicate negatives.

1925 - The Leica introduces the 35 mm format to still photography.

1923 - The 16 mm amateur motion picture format is introduced by Kodak and their Cine-Kodak camera uses reversal film on an acetate (safety) base. HAROLD EDGERTON INVENTS THE XENON FLASH LAMP FOR STROBE PHOTOGRAPHY.

1922 - Kodak makes 35 mm panchromatic motion picture film available as a regular stock.

1914 - Kodak introduces the Autographic film system. The World, the Flesh and the Devil, the first dramatic feature film in color, is released.

1913 - Kodak makes 35 mm panchromatic motion picture film available on a bulk special order basis.

1912 - Vest Pocket Kodak using 127 film. THOMAS EDISON (BY KODAK) INTRODUCES A SHORT-LIVED 22 MM HOME MOTION PICTURE FORMAT USING ACETATE "SAFETY" FILM.

1909 - Kodak announces a 35 mm "safety" motion picture film on an acetate base as an alternative to the highly flammable nitrate base.

1908 - Kinemacolor, a two-color process that is THE FIRST COMMERCIAL "NATURAL COLOR" SYSTEM FOR MOVIES, IS INTRODUCED.

1907 - The Autochrome plate is introduced and becomes THE FIRST COMMERCIALY SUCCESSFUL COLOR PHOTOGRAPHY PRODUCT.

1902 - Arthur Korn devises practical telephotography technology

1901 - KODAK INTRODUCES THE 120 FILM FORMAT.

1900 - KODAK INTRODUCES THEIR FIRST BROWNIE



KODAK ANNOUNCES THE DISCONTINUANCE OF KODACHROME FILM.

ISHOD INTRODUCED BY I-PHONE, THE FIRST COMMERCIALY AVAILABLE NOBILE PHONE WITH A CAMERA THAT CAN TAKE AND SHARE STILL PICTURES.

LYTRO RELEASES THE FIRST POCKET-SIZED CONSUMER LIGHT-FIELD CAMERA, capable of refocusing images after being taken.

DALSA PRODUCES A 111 MEGAPIXEL CCD SENSOR, the highest resolution at that time.

agfa photo files for bankruptcy. PRODUCTION OF AGFA BRAND CONSUMER FILMS ENDS.

Polaroid announces it is discontinuing the production of all instant film products, CITING THE RISE OF DIGITAL IMAGING TECHNOLOGY.

the eighteenth century (1700)

the nineteenth century (1800)

the twentieth century (1900)

the twenty-first century (2000)