

Chat with educators, ask questions, answer live polls, and get your doubts cleared - all while the classes with our practice section, mock tests and lecture notes shared as PDFs for your revisionOne subscription gets you access to all our live and recorded classes to watch from the comfort of any of your devices Chemist Franois-Marie Raoult discovered, through an experiment conducted in 1877, that when mixed substances were put into a solution. Chemist Franois-Marie Raoult discovered, through an experiment conducted in 1877, that when mixed substances were put into a solution. Raoult proposed a law to explain this phenomenon, called Raoult's law, that became part of thermodynamic law. It can be seen from Raoult's law that the partial vapor pressure in a solution of a pure solvent is equal to the mole fraction of the solvent within the solution fraction of the solvent within the solution containing mole fractions of a solute will have a lower and higher freezing and boiling point than one containing pure solvents. Resolution = The solvent where, Resolution = The solution = The solvent is defined as X solvent POSolvent = A solvent is defined as X solvent = A solvent = A solvent is defined as X solvent = A Pressure at which the pure solvent vaporizesImagine that a closed container of volatile liquid A is filled. The evaporation of A will result in the formation of A and the liquid particles of the surface. Vapour pressure corresponds to the force exerted by A at a specific temperature by its vapor particles. Solids and liquids exhibit vapor pressure, which is dependent on both the liquid type and its temperature. Taking this solution as an example, when another liquid B is added to it, the B particles will fill the space between the A particles on the surface of the solution. Molecular energy is sufficient to escape molecules of any given liquid whose surface is in the vapor phase. The number of A vapor particles in the vapor phase should be lower at this point on the surface due to fewer A particles. As a consequence, A's vapor pressure will be lower at this point on the surface due to fewer A particles in the vapor phase than there would be in pure liquid B. According to Raoult's law, the new pressure is the partial pressure of A and B in the liquid phase, and it is calculated based on the concentration of the constituents. As Raoult's law, there are several others. As Raoult's law, there are several others. As Raoult's law and it is calculated based on the concentration of the constituents. As Raoult's law and it is calculated based on the concentration of the constituents. As Raoult's law and it is calculated based on the constituents. As Raoult's law and it is calculated based on the constituents. As Raoult's law and it is calculated based on the constituents. As Raoult's law and based on the constituents. As Raoult describes ideal solutions, that is, those in which the gas phase exhibits thermodynamic properties comparable to a mixture of ideal gases, it is especially appropriate. There has to be chemical equivalence between different attractive forces, so these types of solutions deviate from Raoult's law or do not follow it appropriately or they deviate from Raoult's law. If there is an adhesive force or cohesive force or cohesive force between particles that is stronger than the force between particles in pure liquids causes this phenomenon. In acetone and chloroform, for example, this behavior is observed. There is a deviation in this mixture because of hydrogen bonds. Hydrochloric acid in solution in water is one example of this. If cohesion between molecules is greater than the adhesion between unlike molecules, the deviation will be positive. This results in a higher vapor pressure than expected. When the components of the mixture are mixed, they escape the solution more readily than when they are pure. The same behavior is observed in benzene-methanol mixtures as well as in chloroform-ethanol mixtures. Raoult's law has deviated in two different ways for the real solution, namely by a positive deviation and a negative deviation. Using Raoult's ideal solution. As can be seen in Figure 1, where A is chloroform and B is acetone, the total vapor pressure curve shows a minimum where the deviation is sufficiently large. It is due to the formation of a hydrogen bond between chloroform and acetone that both exhibit this attraction, thus reducing each one's tendency to escape. In the presence of this pair, a weak compound is formed that can be isolated and identified, [Cl3C-H...O=C(CH3)2]. Negative deviations may be caused by reactions between dipolar molecules, or by reactions between dipolar molecules, or by reactions between dipolar molecules. It is rare, however, to be able to isolate definite compounds in these cases since the interaction is usually so weak. Figure - 1 As A molecules interact less than between pure constituent molecules in the presence of B molecules, the interaction of B molecules is reduced, whereas the interaction of B molecules is reduced in the presence of B molecules. Due to their dissimilarities in polarity or pressure, the molecules is reduced in the presence of B molecules is reduced. another. Positive deviations are those that result from partial vapor pressures exceeding those predicted by Raoult's law; thus, partly vaporized constituents experience higher partial vapor pressures than expected. A large deviation in composition. As an example, here is a figure that shows a positive deviation. Benzene and ethyl alcohol, carbon desulfurization and acetone, and chloroform and ethyl alcohol, carbon desulfurization and ethyl alcohol, carbon desulfurization and ethyl alcohol display positive deviation. that substance is present in high concentrations, and in such a case, the solvent is the substance that describes the behavior of a real liquid pair. By Raoult's law, Psolvent = PO solvent XsolventIt is the mole fraction multiplied by the characteristic proportionality constant of the solute that determines the vapor pressure of a volatile solute Psolute =KsoluteXsoluteHenry's law states that in real liquid pairs diluted solutions, solutes respond to Henry's law, and solvents respond to Raoult's law.Get subject wise printable pdf notesView Here Visitors are also reading: Cleaning of pharmaceutical instruments after a product has been manufactured is critical to ensure that the subsequent products to be manufactured are not contaminated. The removal of the previous products from manufacturing equipment is known as cleaning has been documented, it is referred to as cleaning method validation. Page 2Cleaning of pharmaceutical instruments after a product has been manufactured is critical to ensure that the subsequent products to be manufactured are not contaminated. The removal of the residues of the previous products from manufacturing equipment is known as cleaning. If the whole process of cleaning has been documented, it is referred to as cleaning method validation. Page 3During document submission to regulatory agencies, the Drug Master File (DMF) plays an important role in pharmaceuticals in protecting confidential information. If your company is a manufacturer of active pharmaceutical ingredients, or packaging material then it is required to know that how to properly prepare and submit a drug master file to regulatory aPage 4Microbiological quality of pharmaceutical products is essential for patient safety and products are manufactured in a sterile products are manufactured in a sterile products are manufactured in a sterile product stability. As we know, the sterile products are manufactured in a sterile product stability. liquid Chromatography also known as HPLC is a widely used instrument for analysis in pharmaceutical, chemical and food industries. It has powerful ability to identify and quantify the complex mixtures and this makes it an essential instrument for analysis in pharmaceutical, chemical and food industries. It has powerful ability to identify and quantify the complex mixtures and this makes it an essential instrument for analysis in pharmaceutical, chemical and food industries. principle of HPLC.Page 6High Performance liquid Chromatography also known as HPLC is a widely used instrument for analysis in pharmaceutical, chemical and food industries. It has powerful ability to identify and quantify the complex mixtures and this makes it an essential instrument for analysis in pharmaceutical, chemical and food industries. It has powerful ability to identify and quantify the complex mixtures and this makes it an essential instrument for analysis in pharmaceutical, chemical and food industries. It has powerful ability to identify and quantify the complex mixtures and this makes it an essential instrument for analysis in pharmaceutical, chemical and food industries. knowledge on major components, working and principle of HPLC.Page 7Standard operating procedures are back bone of a pharmaceutical manufacturing company. These are essential to produce effective, easy to understand and meeting the regulatory requirements SOP is not an easy task.Page 8You've probably seen temperature sensors all around your house - they're those little black and white boxes that you see in the corner of most appliances, and they come in a variety of shapes and sizes. In this article, we'll be looking at the different types of temperature sensors, as well as discussing their key features.Page 9Gas chromatography is one of the most useful analytical tools in pharmaceutical and chemical laboratories. Because of its reliability and accuracy, this technique has been used for decades to analyze chemical and pharmaceutical products. Page 10Sterile pharmaceutical manufacturing is the most demanding area in pharmaceutical industry. Injectable drug products and other formulations are produced in sterile area. These products must be free from microbial contamination, pyrogens and particulate matter. Any
contamination in these products must be free from microbial contamination in these products and life threatening because they are administered directly into the stream. Page 11 Cleaning of manufacturing equipment has great importance in the pharmaceutical and biotechnology industries. It is required to clean manufacturing equipment thoroughly between batches to prevent cross-contamination and ensure the product quality. Non disassembling systems and production equipment thoroughly between batches to prevent cross-contamination and ensure the product quality. 12Recently US FDA announced the expansion of unannounced inspections of foreign manufacturing facilities that produce medicines and medical products and supply them in the United States. The aim of this decision is to align the foreign manufacturing facilities with the domestic ones. Page 13Purified water in the pharmaceutical industry is a critical component because it is used at various stages of pharmaceutical industry. Page 14It is a tricle, we shall discuss two different case studies of water system failures in the pharmaceutical industry. Page 14It is a multi-step journey to ensure safety, efficacy and quality to bring a new drug in the market in the United States. This journal is conducted by US Food and Drug Administration that is a federal agency responsible for protecting public health and regulates pharmaceuticals, biologics and medical devices. It is required to understand the FDA drug approval process for manufactures as well as Page 15Cleaning of pharmaceutical instruments after a product has been manufactured is critical to ensure that the subsequent products from manufacturing equipment is known as cleaning. If the whole process of cleaning has been documented, it is referred to as cleaning method validation. Page 16Compliance quality and efficacy are non-negotiable in pharmaceutical industry. It is required to improve compliance quality and efficacy are non-negotiable in pharmaceutical industry. from lean management. In which team goes to the actual place where work is being done and engages with the people doing it.Page 17Artificial intelligence is being used in every field these days. It has revolutionary effects on the pharmaceutical industry by speeding up drug discovery, the manufacturing process and ensuring patient-specific healthcare. The following are the key areas where Artificial Intelligenceis making a significant impact. Page 18 Have you wondered how the same medicine is a good fit for different genetic make-ups and lifestyles? It is not; our medication should be aligned with our individual needs and lifestyles to be optimally effective. Page 19 In the real world of pharmaceutical carriers, it is challenging to find a dream job after graduation. For many fresh candidates, a question arises "From where I should start". With the growing competition, it is essential to build a strategy in the early days of your job search. Following are some actionable tips to help you find your first pharmaceutical job.Page 20In the real world of pharmaceutical carriers, it is challenging to find a dream job after graduation. For many fresh candidates, a question arises "From where I should start". With the growing competition, it is essential to build a strategy in the early days of your job search. Following are some actionable tips to help you find your first pharmaceutical job.Page 21The word Interviews comes from a Middle French phrase s'entrevoir which means "to see each other, visit each other briefly, have a glimpse of," and that is exactly what interviews are about. The interviews are about. The interviews are about. not, the discomfort comes from the lack of a cohesive answePage 22Microbiological quality of pharmaceutical products are manufactured in a sterile environment, but non-sterile products are manufactured in a sterile environment, but non-sterile products are manufactured in a sterile environment, but non-sterile products are manufactured in a sterile environment, but non-sterile products are manufactured in a sterile environment, but non-sterile products are manufactured in a sterile environment, but non-sterile products are manufactured in a sterile environment, but non-sterile products are manufactured in a sterile environment, but non-sterile products are manufactured in a sterile environment, but non-sterile products are manufactured in a sterile environment, but non-sterile products are manufactured in a sterile environment, but non-sterile products are manufactured in a sterile environment, but non-sterile products are manufactured in a sterile environment, but non-sterile products are manufactured in a sterile environment, but non-sterile products are manufactured in a sterile environment, but non-sterile products are manufactured in a sterile environment, but non-sterile products are manufactured in a sterile environment, but non-sterile products are manufactured in a sterile environment, but non-sterile envino-sterile environment, but non-sterile env non-sterile manufacturing area. Page 23Sterile pharmaceutical manufacturing is the most demanding area in pharmaceutical industry. Injectable drug products and life threatening because they are administered directly into the stream. Page 24Temperature sensors are used in different processes and domestic use. Water is used as a coolant, solvent or in many other chemical based reactions in companies. After the manufacturing process is completed, wastewater is then called effluent. It contains both toxic and non-toxic materials. in any medium or format for any purpose, even commercially. Adapt remix, transform, and build upon the material for any purpose, even commercially. The license terms. Attribution You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. ShareAlike If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original. No additional restrictions You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits. You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation. No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material. 0 ratings0% found this document useful (0 votes)2K viewsRaoult's law states that the vapor pressure of an ideal solution is dependent on the mole fraction of each component in the solution. It assumes that the interactions between different molecSaveSave Raoult's Law For Later0%0% found this document useful, undefinedLaw of thermodynamics for vapour pressure of a mixtureRaoult's law (/rulz/ law) is a relation of physical chemistry, with implications in thermodynamics. Proposed by French chemist Francis-Marie Raoult in 1887,[1][2] it states that the partial pressure of a mixture of liquids is equal to the vapor pressure of the pure component (liquid or solid) multiplied by its mole fraction in the mixture. In consequence, the relative lowering of vapor pressure of a dilute solution is the mole fraction in the mixture. stated as $p i = p i x i \{ displaystyle p_{i} = p_{i}^{i} \}$ where $p i \{ displaystyle p_{i} \}$ is the partial pressure of the component i $\{ displaystyle p_{i} \}$ is the equilibrium vapor pressure of the pure component i $\{ displaystyle i \}$ is the partial pressure of the component i $\{ displaystyle p_{i} \}$ is the mole fraction of the component i {\displaystyle i} in the liquid or solid solution.[3]Where two volatile liquids A and B are mixed with each other to form a solution, the vapor phase consists of both components in the solution. The vapor phase consists of both components in the solution. combining Raoult's law with Dalton's law of partial pressures to give $p = p A x A + p B x B + . \{\det\{B\} + \det\{B\} + k \in \mathbb{R} \}$ $\left(\frac{B}+cdots\right) + \left(\frac{B}+cdots\right) + \left(\frac{$ In an ideal solution of a nonvolatile solute, the decrease in vapor pressure is directly proportional to the mole fraction of solute: $p = p \land x \land (displaystyle p=p_{(text{A}), p \in p \land x \land (displaystyle p=p_{(text{A}), p \in p \land x \land x \land (dis$ }x_{\text{B}}.} If the solute associates or dissociates in the solution (such as an electrolyte/salt), the expression of the law includes the van 't Hoff factor. That is, the mole fraction must be calculated using the actual number of particles in solution.[4]Vapor pressure of a binary solution that obeys Raoult's law. The black line shows the total vapor pressure as a function of the mole fraction of component B, and the two green lines are equal to those don the simple microscopic assumption that intermolecular forces between unlike molecules are equal to those don the simple microscopic assumption that intermolecular forces between unlike molecules are equal to those don the simple microscopic assumption that intermolecular forces between unlike molecules are equal to those don the simple microscopic assumption that intermolecular forces between unlike molecules are equal to those don the simple microscopic assumption that intermolecular forces between unlike molecules are equal to those don the simple microscopic assumption that between similar molecules, and that their molar volumes are the same: the conditions of an ideal gas law, which is a limiting law valid when the interactive forces between molecules approach zero. Raoult's law is instead valid if the physical properties of the components are identical. The more similar the components are, the more their behavior approaches
that described by Raoult's law. For example, if the two components differ only in isotopic content, then Raoult's law is essentially exact. Comparing measured vapor pressures to predicted values from Raoult's law. relative strength of intermolecular forces. If the vapor pressure is less than predicted (a negative deviation), fewer molecules of each component, indicating that the forces between unlike molecules are stronger. The converse is true for positive deviations. For a solution of two liquids A and B, Raoult's law predicts that if no other gases are present, then the total vapor pressure p {\displaystyle p} above the solution of A and B {\displaystyle p} of the two components. Thus the total pressure above the solution of A and B and would be p = p A x A + p B x B. {\displaystyle $p=p_{\left(x x \{A\}\right)+p_{\left(x x \{B\}\right)+p_{\left(x x x \{B\}\right)+p_{\left(x x \{B$ (p_{\text{B}}^{\star }-p_{\text{B}}). This is a linear function of the mole fraction x B {\displaystyle x_{\text{B}}}, as shown in the graph. Raoult's law was first observed empirically and led Francis-Marie Raoult[1][2] to postulate that the vapor pressure above an ideal mixture of liquids is equal to the sum of the vapor pressures of each component multiplied by its mole fraction.[5]:325 Taking compliance with Raoult's Law as a defining characteristic of ideality in a solution, it is possible to deduce that the chemical potential of each component of the liquid is given by i = i + R T ln x i, {\displaystyle \mu_{i}}, where i {\displaystyle \mu_{i}, where i {\displaystyle \mu_{i}}, where i {\displaystyle \mu_{i}, it is possible to deduce that the chemical potential of each component of the liquid is given by i = i + R T ln x i, {\displaystyle \mu_{i}, it is possible to deduce that the chemical potential of each component of the liquid is given by i = i + R T ln x i, {\displaystyle \mu_{i}, it is possible to deduce that the chemical potential of each component of the liquid is given by i = i + R T ln x i, {\displaystyle \mu_{i}, it is possible to deduce that the chemical potential of each component of the liquid is given by i = i + R T ln x i, {\displaystyle \mu_{i}, it is possible to deduce that the chemical potential of each component of the liquid is given by i = i + R T ln x i, {\displaystyle \mu_{i}, it is possible to deduce that the chemical potential of each component of the liquid is given by i = i + R T ln x i, {\displaystyle \mu_{i}, it is possible to deduce that the chemical potential of each component of the liquid is given by i = i + R T ln x i, {\displaystyle \mu_{i}, it is possible to deduce that the chemical potential of each component of the liquid is given by i = i + R T ln x i, {\displaystyle \mu_{i}, it is possible to deduce that the chemical potential of each component of the liquid is given by i = i + R T ln x i, {\displaystyle \mu_{i}, it is possible to deduce that the chemical potential of each component of the liquid is given by i = i + R T ln x i, {\displaystyle \mu_{i}, it is possible to deduce that the chemical potential of each component of the liquid is given by i = i + R T ln x i, {\displaystyle \mu_{i}, it is possible to deduce that the chemical potential of each component of the liquid is given by \mu _{i}^{\star }} is the chemical potential in the pure state and x i {\displaystyle x_{i}} is the mole fraction of component i {\displaystyle i} in the ideal solution. From this equation, other thermodynamic properties of an ideal solution. From this equation, other thermodynamic properties of an ideal solution may be determined. If the assumption that the vapor follows the ideal gas law is added, Raoult's law may be derived as follows. If the system is ideal, then, at equilibrium, the chemical potential of each component i {\displaystyle \mu _{i,{\text{uq}}}.} Substituting the formula for chemical potential gives i, liq + R T ln x i = i, vap + R T ln f i p _{i, (xap + R T ln f i p $\left(\frac{i}\right)^{1}, as a fraction of the pressure in the reference state, p {\begin{bmatrix} i < \colored{cominus}}, as the gas-phase mole fraction depends on its fugacity, f i {\displaystyle f_{i}}, as a fraction of the pressure in the reference state, p {\displaystyle p^{(ominus})}. The corresponding equation when the system$ consists purely of component i {\displaystyle i} in equilibrium with its vapor is i, liq = i, vap + R T ln f i p. {\displaystyle \mu_{i,{\text{vap}}}^{(\star }} {\star }} Subtracting these equations and re-arranging leads to the result[5]:326 f i = x i f i. {\displaystyle \mu_{i,{\text{vap}}}^{(\star }} {\star }} {\star }} {\star }} {\star }} {\star } {\star } {\star } {\star }} {\star } {\star }} {\star } {\star }} {\star } {\star } {\star }} {\star } {\star }} {\star } { $\{star \}$ For the ideal gas, pressure and fugacity are equal, so introducing simple pressures to this result yields Raoult's law, but most solutions deviate from ideality. Interactions between gas molecules are typically especially if the vapor pressures are low. However, the interactions in a liquid are very strong. For a solution to be ideal, the interactions between like molecules.[6] This approximation is only true when the different species are almost chemically identical. One can see that from considering the Gibbs free energy change of mixing: mix $G = n R T (x 1 \ln x 1 + x 2 \ln x 2)$. {\displaystyle \Delta {\text{mix}}G = n RT(x {1}\ln x {1}+x 2 \ln x 2). } This is always negative, so mixing is spontaneous. However, the expression is, apart from a factor T {\displaystyle -T}, equal to the entropy of mixing. This leaves no room at all for an enthalpy effect and implies that mix H {\displaystyle \Delta _{\text{mix}}H} must be equal to zero, and this can only be true if the interactions between the molecules are indifferent. It can be shown using the GibbsDuhem equation that if Raoult's law holds over the entire concentration range x [0, 1] {\displaystyle x\in [0, 1]} in a binary solution then, for the second component, the same must also hold. If deviations from the ideal are not too large, Raoult's law is still valid in a narrow concentration range when approaching x 1 {\displaystyle x\to 1} for the majority phase (the solvent). The solute also shows a linear limiting law, but with a different coefficient. This relationship is known as Henry's law. The presence of these limited linear regimes has been experimentally verified in a great number of cases, though large deviations occur in a variety of cases. Consequently, both its pedagogical value and utility have been questioned at the introductory college level. [7] In a perfectly ideal system, where ideal liquid and ideal vapor are assumed, a very useful equation emerges if Raoult's law is combined with Dalton's Law: x i = y i p total p i, {\displaystyle $x \{i\}$ }, where $x i \{ displaystyle i \}$ is the mole fraction of component i {\displaystyle i } in the solution, and $y i \{ displaystyle y \{i\} \}$ is its mole fraction in the gas phase. This equation shows that, for an ideal solution where each pure component has a different vapor pressure, the gas phase is enriched in the component with the lower pure vapor pressure. This phenomenon is the basis for distillation. In elementary applications, Raoult's law is generally valid when the liquid phase is either nearly pure or a mixture of similar substances. [8] Raoult's law may be adapted to non-ideal solutions by incorporating two factors that account for the interactions between molecules of different substances. law. It is called the fugacity coefficient (p, i {\displaystyle \phi {p,i}}. The second, the activity coefficient i {\displaystyle \gamma {i}}, is a correction for interactions in the liquid phase between the different molecules.[5]:326This modified or extended Raoult's law is then written as[9] y i p, i p = x i i p i. {\displaystyle y_{i}\phi} _{p,i}p=x_{i}\gamma _{i}p_{i}^{\star }.} In many pairs of liquids, there is no uniformity of attractive forces, i.e., the adhesive (between dissimilar molecules) are not uniform between the two liquids. Therefore, they deviate from Raoult's law, which applies only to ideal solutions. Notably, when the
concentration of A is small, its vapor pressure instead follows Henry's law, and likewise for substance B when its concentration is small.Negative deviation in the graph.For example, the system of chloroform (CHCl3) and acetone (CH3COCH3) has a negative deviation[10] from Raoult's law, indicating an attractive interaction between the two components that have been described as a hydrogen bond.[11] The system HClwater has a large enough negative deviation to form a minimum in the vapor pressure curve known as a (negative) azeotrope, corresponding to a mixture that evaporates without change of composition.[12] When these two components are mixed, the reaction is exothermic as ion-dipole intermolecular forces of attraction from Raoult's lawWhen the adhesion is weaker than cohesion, which is quite common, the liquid particles escape the solution more easily that increases the vapor pressure and leads to a positive azeotrope (low-boiling mixture). Some mixtures in which this happens are (1) ethanol and water, (2) benzene and methanol, (3) carbon disulfide and acetone, (4) chloroform and ethanol, and (5) glycine and water. When these pairs of components are mixed, the process is endothermic as weaker intermolecular interactions are formed so that mixH is possible to have mixed deviations, which are positive for one component and negative for the other, and which switch between positive are not merely theoretically possible, as actual examples of mixed deviation exist.[13] The possible physical deviations are not merely theoretically possible, as actual examples of mixed deviation exist.[13] The possible physical deviations are not merely theoretically possible. entirely arbitrary however, as they are constrained by the DuhemMargules equation: for example, if one component has positive deviation over the entire range.[13]Antoine equationAtomic theoryAzeotropeDhring's ruleHenry's lawKhler theorySolubility^ a b Raoult, F.-M (1886). 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B. Smith Basic Chemical Thermodynamics. Clarendon Press. Oxford (1993)Retrieved from " free encyclopedia that anyone can edit.112,025 active editors 7,010,103 articles in EnglishThe russet sparrow is a passerine bird in the sparrow family Passeridae, distributed in eastern Asia. A chunky little seedeating bird with a thick bill, it has a body length of 14 to 15cm (5.5 to 5.9in). Its plumage is mainly warm rufous above and grey below. It exhibits sexual dimorphism, with the plumage of both sexes patterned similarly to that of the corresponding sex of the house sparrow. Its vocalisations are sweet and musical chirps, which when strung together form a song. The russet sparrow is known well enough in the Himalayas to have a distinct name in some languages, and is depicted in Japanese art. It feeds mainly on the seeds of herbs and grains, but it also a predator of insect pests. It is a social bird within its own species, but disperses to breed. The typical clutch has five or six whitish eggs. Both sexes incubate and feed the young. (Fullarticle...)Recently featured: Emmy NoetherThe Combat: Woman Pleading for the VanquishedPseudastacusArchiveBy emailMore featured articlesAboutOpiki Toll Bridge... that the Opiki Toll Bridge (pictured) was placed on New Zealand's national heritage register decades after its deck was removed?... that logicians using classical rules of inference can deduce any arbitrary statement from a contradiction?... that the producer of frica Brasil had to take a specialized course in the United States to learn how to record the unusual setup of musicians?... that Arizona State athletic director Graham Rossini got his start as a student assistant, with duties including washing baseball uniforms?... that the government's Visit Myanmar Year initiative caused Aung San Suu Kyi to encourage a tourism boycott?... that NFL player Blane Smith, one of 15 children, grew up in a two-room house in conditions like "sardines in a can"?... that a Mexican restaurant with just four communal tables, no set menu, no reservations, and cash-only payments was awarded a Michelin star?ArchiveStart a new articleNominate 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. Air India Flight 171 crashes in Ahmedabad, India, killing 279 people. Ongoing: Gaza warRussian invasion of UkrainetimelineSudanese civil wartimelineRecent deaths: Franzo Grande StevensSly StoneMohammad BagheriFereydoon AbbasiStu WilsonVladyslav GoraiNominate an articleJune 17Mumtaz Mahal1579 Explorer Francis Drake landed in a region of present-day California, naming it New Albion and claiming it for England.1631 Mumtaz Mahal (pictured), wife of the Mughal emperor Shah Jahan, died in childbirth; Jahan spent the next seventeen years constructing her mausoleum, the Taj Mahal.1919 Hundreds of Canadian soldiers rioted in Epsom, England, leading to the death of a British police officer.1952 Guatemalan Revolution: The Guatemalan Congress passed Decree900, redistributing unused land greater than 224 acres (0.91km2) in area to local peasants.M. C. Escher (b.1898)Richard Gagnon (b.1948)Amari Cooper (b.1994)Mohamed Morsi (d.2019)More anniversaries: June 16June 17June 18ArchiveBy emailList of days of the yearAboutIgor Stravinsky (17June 1882 6April 1971) was a Russian composer and conductor, considered to be one of the most important and influential composers of the 20th century. He studied under Nikolai Rimsky-Korsakov until the latter's death in 1908. Soon after, Stravinsky met the impresario Sergei Diaghilev, who commissioned the composer to write three ballets for Ballets Russes: The Firebird (1910), Petrushka (1911), and The Rite of Spring (1913), the last of which caused a near-riot at its premiere in Paris. His compositional style varied greatly, being influenced at different times by Russian folklore, neoclassicism, and serialism. His ideas influenced to innovate beyond traditional tonality, rhythm, and form. This photograph of Stravinsky in the early 1920s is from the collection of the American photojournalist George Grantham Bain.Photograph credit: Bain News Service; restored by MyCatIsAChonkRecently featured: Sabella pavoninaMagna Carta (An Embroidery)RaspberryArchiveMore featured picturesCommunity 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. Help desk Ask questions about using or editing Wikipedia. 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Many other Wikipedias are available; some of the largest are listed below. 1,000,000+ articles DeutschEspaolFranaisItalianoNederlandsPolskiPortugusSvenskaTing Vit 250,000+ articles Bahasa IndonesiaBahasa MelayuBn-lm-gCataletinaDanskEestiEsperantoEuskaraMagyarNorsk bokmlRomnSimple EnglishSloveninaSrpskiSrpskohrvatskiSuomiTrkeOzbekcha 50,000+ articles AsturianuAzrbaycancaBosanskiFryskGaeilgeGalegoHrvatskiKurdLatvieuLietuviNorsk nynorskShqipSlovenina Retrieved from " 2Calendar
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January 6 The Union of Arras unites the southern Netherlands under the Duke of Parma, governor in the name of king Philip II of Orangeo Villiam I of Orang becomes Stadtholder, and the Duc d'Anjou, younger brother of Henry III of France, is invited to become hereditary sovereign.[1]February 4 The Ghent Republic joins the Union of Utrecht.[2]February 28 The seizure in September by Willem IV van den Bergh, of the Boxmeer Castle in September in the Netherlands is condemned by the other Dutch members of the Union of Utrecht.[3]March 1 Off of the coast of what is now Ecuador, the English galleon Golden Hind, captained by Francis Drake, captures the Spanish freighter Nuestra Seora de la Concepcin (unofficially called "Cagafuego") and its cargo, including 26 tons of silver and 1,000 pounds of gold.[4]March 2 Battle of Borgerhout in Brabant (now Belgium): Spanish troops under the command of the Duke of Parma overwhelm rebels fighting for the Union of Utrecht.[5]March 12 The Siege of Maastricht, a center of the Dutch resistance to Spanish rule, is started in the Netherlands by Spanish troops under the command of Alexander Farnese, Duke of Parma.[6] The siege will last almost four months before Maastricht falls on July 1. April 10 In the village of Cuers in France, near Toulon rebel peasants kill 600 nobles and upper-class gentlemen of the Catholic League serving the Count of Arras is concluded between Spain (represented by the Duke of Parma), and members of the Union of Arras that had been formed in January. The Union of Utrecht continues its resistance against Spain while the County of Hainaut, the County of Artois, and the cities of Douai, Lille, Orchies and Arras agree to a separate peace under Spanish rule.[8]May 21 Battle of Mimaomote: In Japan, Doi Kiyonaga defeats the forces of Kumu Yorinobu.[9]June 17 Francisco defeats the forces of Kumu Yorinobu.[9]June Drake, during his circumnavigation of the world, lands in modern-day California, which he claims for Queen Elizabeth I.[10][11] With an English claim all land from the Atlantic to the Pacific, from "sea to sea." Drake's claim is called Nova Albion (New England), and subsequent maps will show all lands north of New Spain and New Mexico under this name. July 1 Maastricht surrenders to Spanish troops after a surprise attack by the Duke of Parma, who had besieged the city for more than three months. July 13 Karlovac in Croatia is founded. [12][13]July 17 James FitzMaurice FitzGerald lands with a small force of Irish, Spanish, and Italian troops at Smerwick, on the Dingle Peninsula in south-western Ireland, and commences the Second Desmond Rebellion against the rule in Ireland of Elizabeth I of England.[14]August 6 In the Spanish-controlled Netherlands, the representatives of the Union of Utrecht declare that they will no longer respect the authority of King Philip of Spain. August 17 "Yasuke", a man of African origin who has been hired as a manager by the Chancellor, ending on June 21, 1582. August 30 Livonian War: In what is now Belarus, the city of Polotsk falls to the forces of Stephen Bthory, Grand Duke of Lithuania and King of Poland.[15]September 10 (5th waning of Tawthalin 941 ME) In the Kingdom of Mrauk U in what is now Myanmar and Bangladesh, King Min Phalaung becomes the owner of the first of three white elephants, and gives himself the title of Hsinbyushin.[16]September 12 Amendments are made to the May 17 Treaty of Arras, with further concessions to Spain by the Union of Arras. The final version is promulgated by King Philip of Spain in Mons, one of the regions in the Arras Union.[8]September 28 In Switzerland, a mutual assistance pact was signed at Lucerne between representatives of Roman Catholic cantons by the efforts of the Catholic Bishop of Basel, Jakob Christoph Blarer von Wartensee. [17]October 5 At Banda Aceh, on the island of Sultan Zainul Abidin. [18]October 11 Sokollu Mehmed Pasha, Grand Vizier of the Ottoman Empire for more than 14 years, is assassinated in Constantinople.[19]October 13 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 13 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 13 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 13 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 13 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 13 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 14 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 15 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 14 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 15 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 15 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 15 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 15 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 15 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 15 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 15 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 15 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 15 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 15 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 15 Semiz Ahmed Pasha is appointed as the new Ottoman Grand Vizier by Sultan Murad III.[19]October 1 majority.[20] Scotland had been ruled by regents since 1567, when James was declared king. October 20 Nicol Doria is elected to a two-year term as the new Doge of the Republic of Genoa. [21] November 3: Seditious writer John Stubbs is barred from writing againNovember 3: Seditious writer John Stubbs is barred from writing againNovember 3: Seditious writer John Stubbs is barred from writing againNovember 3: Seditious writer John Stubbs is barred from writing againNovember 3: Seditious writer John Stubbs is barred from writing againNovember 3: Seditious writer John Stubbs is barred from writing againNovember 3: Seditious writer John Stubbs is barred from writing againNovember 3: Seditious writer John Stubbs is barred from writing againNovember 3: Seditious writer John Stubbs is barred from writing againNovember 3: Seditious writer John Stubbs is barred from writing againNovember 3: Seditious writer John Stubbs is barred from writing againNovember 3: Seditious writer John Stubbs is barred from writing againNovember 3: Seditious writer John Stubbs is barred from writing againNovember 3: Seditious writer John Stubbs is barred from writing againNovember 3: Seditious writer John Stubbs is barred from writing againNovember 3: Seditious writer John Stubbs is barred from writing againNovember 3: Seditious writer
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Akbar issues a mazhar signed by the leading ulamas, putting himself as the highest religious authority, allowing him to interpret the Quran.[29]The municipality of Boac in Marinduque, Philippines is founded.[30]The Bible of Kralice begins publication. The first complete translation of the Bible into the Czech language (with notes), it is prepared by the Unity of the Brethren, and published at Kralice nad Oslavou, Bohemia.[31]Tokugawa HidetadaJanuary 4 Willem Teellinck, Dutch pastor (d. 1629)[32]January 6 Juan Manuel Prez de Guzmn, 8th Duke of Medina Sidonia, Spanish nobleman, Knight of the Order of the Golden Fleece (d. 1636)[33]January 23 Marie of Prussia, Margravine of Brandenburg-Bayreuth (d. 1649)[34]January 27 Antonio Tornielli, Italian Catholic prelate who served as Bishop of Novara (16361650) (d. 1650)February 24 Johann Jacob Grasser, Swiss poet, historian and theologian (d. 1627)[35]March 23 Francis Mansell, English academic (d. 1665)[36]April 10 Augustus the Younger, Duke of Brunswick-Lneburg (d. 1666)[37]April 12 Francis de Bassompierre, French courtier (d. 1666)[37]April 12 Francis de Bassompierre, French courtier (d. 1646)[38]May 1 Wolphert Gerretse, Dutch founder of the New Netherland Colony (d. 1662)[36]April 12 Francis de Bassompierre, French courtier (d. 1646)[37]April 12 Francis de Bassompierre, French courtier (d. 1646)[37]April 12 Francis de Bassompierre, French courtier (d. 1646)[37]April 12 Francis de Bassompierre, French courtier (d. 1665)[36]April 12 Francis de Bassompierre, French courtier (d. 1666)[37]April 12 Francis de Bassompierre, French courtier (d. 1667)[38]April 12 Francis de Bassompierre, French courtier (d. 1667)[38]Apri 1632) June 17 Louis I, Prince of Anhalt-Kthen, German prince (d. 1650) [39] June 18 Afonso Mendes, Patriarch of Ethiopia (d. 1659) July 2 Janusz Radziwi, Lithuanian and Polish nobleman (d. 1620) [40] July 6 Bernardino de Almansa Carrin, Spanish Catholic prelate and Archbishop (d. 1633) [41] Francis Norris, 1st Earl of Berkshire, English noble (d. 1622) [42]July 13 Arthur Dee, English physician and alchemist (d. 1651)[43]August 1 Luis Vlez de Guevara, Spanish dramatist and novelist (d. 1640)[45]August 21 Henri, Duke of Rohan, French Huguenot soldier and writer (d. 1638)[46]August 23 Thomas Dempster, Scottish scholar and historian (d. 1625)[47]September 1 John Frederick of Holstein-Gottorp, Prince-Bishop, German Catholic archbishop (d. 1643)[49]September 16 Samuel Coster, Dutch writer (d. 1665)[50]September 17 Charles Howard, 2nd Earl of Nottingham, English noble (d. 1643)[49]September 16 Samuel Coster, Dutch writer (d. 1665)[50]September 17 Charles Howard, 2nd Earl of Nottingham, English noble (d. 1643)[49]September 16 Samuel Coster, Dutch writer (d. 1665)[50]September 17 Charles Howard, 2nd Earl of Nottingham, English noble (d. 1643)[49]September 16 Samuel Coster, Dutch writer (d. 1665)[50]September 17 Charles Howard, 2nd Earl of Nottingham, English noble (d. 1643)[49]September 16 Samuel Coster, Dutch writer (d. 1665)[50]September 17 Charles Howard, 2nd Earl of Nottingham, English noble (d. 1643)[49]September 16 Samuel Coster, Dutch writer (d. 1665)[50]September 17 Charles Howard, 2nd Earl of Nottingham, English noble (d. 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Spanish explorer (b. 1509)[63]February 20 Nicholas Bacon, English politician (b. 1509)[64]March 12 Alessandro Piccolomini, Italian humanist and philosopher from Siena (b. 1509)[67]May 20 Isabella Markham, English courtier (b. 1527)[68]June 17 Johannes Stadius, Flemish astronomer, astrologer, mathematician (b. 1527)[69]June 25 Hatano Hideharu, Japanese samurai (b. 1527)[70]August 5 Stanislaus Hosius, Polish Catholic cardinal (b. 1504)[71]August 12 Domenico Bollani, Bishop of Milan (b. 1514)[72]October 11 Sokollu Mehmed Pasha, Turkish Janissary and Grand Vizier (b. 1505)October 13 William Drury, English politician (b. 1527)[73]October 24 Albert V, Duke of Bavaria (b. 1528)[74]November 9 Philip VI, Count of Waldeck (15671579) (b. 1551)[75]November 15 Francis David, Hungarian religious reformer (b. 1510)[76]November 21 Thomas Gresham, English merchant and financier (b. 1519)[77]date unknownGiovanni Battista Adriani, Italian historian (b. c. 1512)[78]Diego de Landa, Spanish Bishop of the Yucatn (b. 1524)[79]Hieronim Jarosz Sieniawski, Polish noble (b. 1516)[80]Barbara Thenn, Austrian merchant and Mnzmeister (b. 1519)[77]date unknownGiovanni Battista Adriani, Italian historian (b. c. 1512)[78]Diego de Landa, Spanish Bishop of the Yucatn (b. 1524)[79]Hieronim Jarosz Sieniawski, Polish noble (b. 1516)[80]Barbara Thenn, Austrian merchant and Mnzmeister (b. 1519)[77]date unknownGiovanni Battista Adriani, Italian historian (b. c. 1512)[78]Diego de Landa, Spanish Bishop of the Yucatn 1519)[81]William Whittingham, English Biblical scholar and religious reformer (b. 1524)[82]Voravongsa I, Laotian king of Lan Xangprobable Hans Staden, German adventurer (b. 1525)^a b Mack P. 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Retrieved from " 30ne hundred years, from 1401 to 1500This article needs additional citations for verification. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed. Find sources: "15th century" news newspapers books scholar JSTOR (September 2022) (Learn how and when to remove this message)
Millennia2ndmillenniumCenturies14thcentury15thcentury16thcentur leaders14thcentury15thcentury16thcentury16thcentury16thcenturyDecades1400s1410s1420s1430s1440s1450s1460s1470s1480s1490sCategories:Births Deaths Establishments Disestablishments Disestablishmen Ages. The Surrender of Granada by Francisco Pradilla Ortiz, 1882: Muhammad XII surrenders to Ferdinand and IsabellaGergio Deluci, Christopher Columbus arrives in the Americas in 1492, 1893 painting. The 15th century was the century which spans the Julian calendar dates from 1 January 1401 (represented by the Roman numerals MCDI) to 31 December 1500 (MD). In Europe, the 15th century includes parts of the Late Middle Ages, the Early Renaissance, and the early modern period. Many technological, social and cultural developments of the 15th century can in retrospect be seen as heralding the "European miracle" of the following centuries. The architectural perspective, and the modern fields which are known today as banking and accounting were founded in Italy. The Hundred Years' War ended with a decisive French victory over the English in the Battle of Castillon. Financial troubles in England following the conflicts ended with the defeat of Richard III by Henry VII at the Battle of Bosworth Field, establishing the Empire, fell to the emerging Muslim Ottoman Turks, marking the end of the tremendously influential Byzantine Empire and, for some historians, the end of the Middle Ages.[1] This led to the migration of Greek scholars and texts to Italy, while Johannes Gutenberg's invention of a mechanical movable type began the printing press. These two events played key roles in the development of the Renaissance.[2][3] The Roman papacy was split in two parts in Europe for decades (the so-called Western Schism), until the Council of Constance. The division of the Catholic Church and the unrest associated with the Hussite movement would become factors in the rise of the Protestant Reformation in the following century. Islamic Spain became dissolved through the Christian Reconquista, followed by the forced conversions and the Muslim rebellion, [4] ending over seven centuries of Islamic rule and returning southern Spain to Christian rulers. The spices, wines and precious metals of the Bengal Sultanate [5] had attracted European traders to trade with Bengal, but the trade was subsequently lower, due to the rise of the Ottoman Empire, which introduced new taxes and tariffs against European traders. This had led to explorers like Christopher Columbus finding a route to reach India, which eventually reached the Americas. Explorers like Vasco da Gama, a Portuguese traveller, also found a route to reach India, which eventually reached the Americas. of the Delhi Sultanate. Under the rule of the Yongle Emperor, who built the Forbidden City and commanded Zheng He to explore the world overseas, the Ming dynasty's territory reached its pinnacle. In Africa, the spread of Islam led to the destruction of the Christian kingdoms of Nubia, by the end of the century, leaving only Alodia (which was to collapse in 1504). The formerly vast Mali Empire teetered on the brink of collapse, under pressure from the rising Songhai Empire. In the Americas, both the Aztec Empire and the Inca Empire reached the peak of their influence, but the voyages of Christopher Columbus and other European voyages of discovery in the Americas, beginning the European colonization of the Americas, changed the course of modern history. Portrait of the founder of accounting, Luca Pacioli, by Jacopo de' Barbari (Museo di Capodimonte). 1401: Dilawar Khan establishes the Malwa Sultanate in present-day central India. 1402: Ottoman and Timurid Empires fight at the Battle of Ankara resulting in the capture of Bayezid I by Timur.1402: Sultanate of Malacca founded by Parameswara.[6]1402: The settlement of the Canary Islands signals the beginning of the Spanish Empire.14031413: Ottoman Interregnum, a civil war between the four sons of Bayezid I.1403: The Yongle Emperor moves the capital of China from Nanjing to Beijing.[7]14041406: Regreg War,

Majapahit civil war of secession between Wikramawardhana against Wirabhumi.1405: The Sultanate of Sulu is established by Sharif ul-Hshim.14051433: During the Indian Ocean to Malacca, India, Ceylon, Persia, Arabia, and East Africa to spread China's influence and sovereignty The first voyage, a massive Ming dynasty naval expedition ending in 1407, visited Java, Palembang, Malacca, Aru, Samudera and Lambri.[8]1408: The last recorded event to occur in the Norse settlements of Greenland was a wedding in Hvalsey in the Eastern Settlement in 1408. The Northern Yuan dynasty and Turco-Mongol residual states and domains by the 15th century1410: The Battle of Grunwald is the decisive battle of the PolishLithuanianTeutonic War leading to the downfall of the Teutonic Knights.1410-1415: The last Welsh war of independence, led by Owain Glyndr.1414: Khizr Khan, deputised by Timur to be the governor of Multan, takes over Delhi founding the Sayyid dynasty.1415: Henry the Navigator leads the conquest of Ceuta from the Moors marking the beginning of the Portuguese Empire.1415: Jan Hus is burned at the stake as a heretic at the Council of Constance.1417: A large goodwill mission led by three kings of Sulu, the Eastern King Paduka Pahala, the Western king Maharaja Kolamating and Cave king Paduka Prabhu as well as 340 members of their delegation, in what is now the southern Philippines, ploughed through the Pacific Ocean to China to pay tribute to the Yongle emperor of the Ming Dynasty [9]1417: The East king of Sulu, Paduka Pahala, on their way home, suddenly died in Dezhou, a city in east China's Shandong province. The Yongle Emperor Zhu Di commissioned artisans to build a tomb for the king.[10]14191433: The Hussite Wars in Bohemia.Joan of Arc, a French peasant girl, directly influenced the result of the Hundred Years' War.1420: Construction of the Chinese Forbidden City is completed in Beijing.1420: In Sub-saharan Africa the Ife Empire has collapsed.1424: James I returns to Scotland after being held hostage under three Kings of England since 1406.1424: Deva Raya II succeeds his father Veera Vijaya Bukka Raya as monarch of the Vijayanagara Empire.1425: Catholic University of Leuven (Belgium) founded by Pope Martin V.1427: Reign of Itzcoatl begins as the fourth tlatoani of Tenochtitlan and the first emperor of the Aztec Empire.1429: Joan of Arc ends the Siege of Orlans and turns the tide of the Hundred Years' War.1429: Queen Suhita succeeds her father Wikramawardhana as ruler of Majapahit.[11]1430: Rajah Lontok and Dayang Kalangitan become coregent rulers of the ancient kingdom of Tondo.14319 January Pretrial investigations for Joan of Arc begin in Rouen, France under English occupation.3 March Pope Eugene IV succeeds Pope Martin V, to become the 207th pope.26 March The trial of Joan of Arc begins.30 May Nineteen-vear-old Joan of Arc begins in Rouen, France under English occupation.3 March Pope Eugene IV succeeds Pope Martin V, to become the 207th pope.26 March The trial of Joan of Arc begins.30 May Nineteen-vear-old Joan of Arc begins in Rouen, France under English occupation.3 March Pope Eugene IV succeeds Pope Martin V, to become the 207th pope.26 March The trial of Joan of Arc begins.30 May Nineteen-vear-old Joan of Arc begins in Rouen, France under English occupation.3 March Pope Eugene IV succeeds Pope Martin V, to become the 207th pope.26 March The trial of Joan of Arc begins in Rouen, France under English occupation.3 March Pope Eugene IV succeeds Pope Martin V, to become the 207th pope.26 March The trial of Joan of Arc begins in Rouen, France under English occupation.3 March Pope Eugene IV succeeds Pope Martin V, to become the 207th pope.26 March The trial of Joan of Arc begins in Rouen, France under English occupation.3 March Pope Eugene IV succeeds Pope Martin V, to become the 207th pope.26 March The trial of Joan of Arc begins in Rouen, France under English occupation.3 March Pope Eugene IV succeeds Pope Martin V, to become the 207th pope.26 March The trial of Joan of Arc begins in Rouen, France under English occupation.3 March Pope Eugene IV succeeds Pope Martin V, to become the 207th pope.26 March The trial of Joan of Arc begins in Rouen, France under English occupation.3 March Pope Eugene IV succeeds Pope Martin V, to become the 207th pope.26 March The trial of Joan of Arc begins in Rouen, France under English occupation.3 March Pope Eugene IV succeeds Pope Martin V, to become the 207th pope.26 March The trial of Joan of Arc begins in Rouen, France under English occupation.3 March Pope Eugene IV succeeds Pope Martin V, to become the Knights and vitrigaila sign the Treaty of Christmemel, creating anti-Polish allianceSeptember Battle of Inverlochy: Donald Balloch defeats the Royalists. 30 October Treaty of Medina del Campo, consolidating peace between Portugal and Castille.16 December Henry VI of England is crowned King of France. 1434: The Catholics and Utraguists defeat the Taborites at the Battle of Lipany, ending the Hussite Wars.1438: Pachacuti founds the Inca Empire. Detail of The Emperor's royal carriage. Ming dynasty of China.1440: Eton College founded by Henry VI.1440s: The Golden Horde breaks up into the Siberia Khanate, the Khanate of Kazan, the Astrakhan Khanate, the Crimean Khanate, and the Great Horde.14401469: Under Moctezuma I, the Aztecs become the dominant power in Mesoamerica.1440: Reign of Moctezuma I begins as the fifth tlatoani of Tenochtitlan and emperor of the Aztec Empire.1441: Jan van Eyck, Flemish painter, dies.1441: Portuguese navigators cruise West Africa and reestablish the European slave trade with a shipment of African slaves sent directly from Africa to Portugal.1441: A civil war between the Tutul Xiues and Cocom breaks out in the League of Mayapan. As Leonardo Bruni defines Middle Ages and Modern times.1443: Abdur Razzaq visits India.1443: King Sejong the Great publishes the hangul, the native phonetic alphabet system for the Korean language.1444: The Albanian state is set up and lasts until 1479.1444: Ottoman Empire under Sultan Murad II defeats the Polish and Hungarian armies under Wadysaw III of Poland and Jnos Hunyadi at the Battle of Suzdal.1446: Mallikarjuna Raya succeeds his father Deva Raya II as monarch of the Vijayanagara Empire.1447: Wijaya Parakrama Wardhana, succeeds Suhita as ruler of Majapahit.[11]1449: Saint Srimanta Sankardeva was born.1449: Esen Tayisi leads an Oirat Mongol invasion of China which culminate in the capture of the Zhengtong Emperor at Battle of Tumu Fortress. Angkor, the capital of the Khmer Empire, was abandoned in the 15th century.1450s: Machu Picchu constructed.1450: Dayang Kalangitan became the Queen regnant of the ancient kingdom of Tondo that started Tondo's political dominance over Luzon.1451: Bahlul Khan Lodhi ascends the throne of the Delhi sultanate starting the Lodhi dynasty1451: Rajasawardhana, born Bhre Pamotan, styled Brawijaya II succeeds Wijayaparakramawardhana as ruler of Majapahit.[11]1453: The Fall of Constantinople marks the end of the Byzantine Empire and the death of the Byzantine Empire and the first battle in European history where cannons were a major factor in deciding the battle.1453: Reign of Rajasawardhana ends.[11]14541466: After defeating the Teutonic Knights in the Thirteen Years' War, Poland annexes Royal Prussia.14551485: Wars of the Roses English civil war between the House of York and the House of Lancaster.1456: Joan of Arc is posthumously acquitted of heresy by the Catholic Church, redeeming her status as the heroine of France.1456: The Siege of Belgrade halts the Ottomans' advance into Europe.1456: Girishawardhana, styled Brawijaya III, becomes ruler of Majapahit.[11]1457: Construction of Edo Castle begins. The seventeen Kuchkabals of Yucatn after The League of Mayapan in 1461.1461: The League of Mayapan disintegrates. The league is replaced by seventeen Kuchkabal.1461: The city of Sarajevo is founded by the Ottomans.1461: The city of Sarajevo is founded by Wales.17 February Second Battle of St Albans, England: The Earl of Warwick's army is defeated by a Lancastrian force under Queen Margaret, who recovers control of her husband.4 March The Duke of York during war of the Roses.29 March Battle of Towton: Edward IV defeats Queen Margaret to make good his claim to the English throne (thought to be the bloodiest battle ever fought in England).28 June Edward, Richard of York's son, is crowned as Edward IV, King of England (reigns until 1483). July Byzantine general Graitzas Palaiologos honourably surrenders Salmeniko Castle, last garrison of the Despotate of the Morea, to invading forces of the Ottoman Empire, along the Niger River, conquers Mali in 1483).1462: Sonni Ali Ber, the ruler of the Songhay) Empire, along the Niger River, conquers Mali in the central Sudan by defeating the Tuareg contingent at Tombouctou (or Timbuktu) and capturing the city. He develops both his own capital, Gao, and the main centres of Mali, Timbuktu and Djenn, into major cities. Ali Ber controls trade along the Niger River with a navy of war vessels.1462: Mehmed the Conqueror is driven back by Wallachian prince Vlad III Dracula at The Night Attack.1464: Edward IV of England secretly marries Elizabeth Woodville.1465: The 1465 Morocco Abd al-Haqq II.1466: Singhawikramawardhana, succeeds Girishawardhana as ruler of Majapahit.[11]1467: Uzun Hasan defeats the Black Sheep Turkoman leader Jahn Shh.14671615: The Sengoku period is one of civil war in Japan.1469: The marriage of Ferdinand II of Aragon and Isabella I of Castile leads to the unification of Spain. The renaissance king Matthias Corvinus of Hungary. His mercenary standing army (the Black Army) had the strongest military potential of its era.1469: Matthias Corvinus of Hungary conquers some parts of Bohemia.1469: Birth of Guru Nanak Dev. Beside followers of Sikhism, Guru Nanak is revered by Hindus and Muslim Sufis across the Indian subcontinent.1469: Reign of Axayacatl begins in the Aztec capital of Tenochtitlan as the sixth tlatoani and emperor of the Aztec Triple Alliance.1470: The Moldavian forces under Stephen the Great defeat the Tatars of the Golden Horde at the Battle of Lipnic.1471: The kingdom of Champa suffers a massive defeat by the Vietnamese king L Thnh Tng.1472: Abu Abd Allah al-Sheikh Muhammad ibn Yahya becomes the first Wattasid Sultan of Morocco.14741477: Burgundy Wars of France, Switzerland, Lorraine and Sigismund II of Habsburg against the Charles the Bold, Duke of Burgundy.1478: Muscovy conquers Novgorod.1478: Reign of Singhawikramawardhana ends.[11]1478: The Great Mosque of Demak is the oldest mosque in Java, built by the Wali Songo during the reign of Sultan Raden Patah.1479: Battle of Breadfield, Matthias Corvinus of Hungary defeated the Turks.1479: JagatGuru Vallabhacharya Ji Mahaprabhu was born[12]The Siege of Rhodes (1480). Ships of the Hospitaliers in the forefront, and Turkish camp in the background.1480: After the Great standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the Great Standing on the Ugra river, Muscovy gained independence from the G auto-da-f.1481: Reign of Tizoc begins as the seventh tlatoani of Tenochtitlan and the emperor of the Aztec Triple Alliance.1482: Portuguese navigator Diogo Co becomes the first European to enter the Congo.1483: The Jews are expelled from Andalusia.1483: Pluto moves inside Neptune's orbit until July 23, 1503, according to modern orbital calculations.1484: William Caxton, the first printer of books in English, prints his translation of Aesop's Fables in London.1485: Henry VII defeats Richard III at the Battle of Bosworth and becomes King of England.1485: Ivan III of Russia conquered Tver.1485: Saluva Narasimha Deva Raya drives out Praudha Raya ending the Sangama Dynasty.1486: Sher Shah Suri, is born in Sasaram, Bihar.1486: Reign of Ahuitzotl begins as the eighth tlatoani of Tenochtitlan and emperor of the Aztec Triple Alliance.1487: Hongzhi Emperor ascends the throne, bringing Confucian ideology under his administration.1488: Portuguese Navigator Bartolomeu Dias sails around the Cape of Good Hope.View of Florence, birthplace of the Renaissance, in a 1493 woodcut from Hartmann Schedel's Nuremberg Chronicle1492: The death of Sunni Ali Ber left a leadership void in the Songhai Empire, and his son was soon dethroned by Mamadou Toure who ascended the throne in 1493 under the name Askia (meaning "general") Muhammad made Songhai the largest empire in the history of West Africa. The empire went into decline, however, after 1528, when the now-blind Askia Muhammad was dethroned by his son, Askia Musa.1492: Boabdil's surrender of Granada marks the end of the Spanish Reconquista and Al-Andalus.1492: Ferdinand and Isabella sign the Alhambra Decree, expelling all Jews from Spain unless they convert to Catholicism; 40,000200,000 leave.1492: Christopher Columbus landed in the Americas from Spain.1493: Christopher Columbus landed in the Americas from Spain unless they convert to Catholicism; 40,000200,000 leave.1492: Christopher Columbus landed in the Americas from Spain unless they convert to Catholicism; 40,000200,000 leave.1492: Christopher Columbus landed in the Americas from Spain unless they convert to Catholicism; 40,000200,000 leave.1492: Christopher Columbus landed in the Americas from Spain unless they convert to Catholicism; 40,000200,000 leave.1492: Christopher Columbus landed in the Americas from Spain unless they convert to Catholicism; 40,000200,000 leave.1492: Christopher Columbus landed in the Americas from Spain unless they convert to Catholicism; 40,000200,000 leave.1492: Christopher Columbus landed in the Americas from Spain unless they convert to Catholicism; 40,000200,000 leave.1493: Christopher Columbus landed in the Americas from Spain unless they convert to Catholicism; 40,000200,000 leave.1493: Christopher Columbus landed in the Americas from Spain unless they convert to Catholicism; 40,000200,000 leave.1493: Christopher Columbus landed in the Americas from Spain unless they convert to Catholicism; 40,000200,000 leave.1493: Christopher Columbus landed in the Americas from Spain unless they convert to Catholicism; 40,000200,000 leave.1493: Christopher Columbus landed in the Americas from Spain unless they convert to Catholicism; 40,000200,000 leave.1493: Christopher Columbus landed in the Americas from Spain unless they convert to Catholicism; 40,000200,000 leave.1493: Christopher Columbus landed in the Americas first known design for a helicopter.1494: Spain and Portugal sign the Treaty of Tordesillas and agree to divide the World outside of Europe between themselves.1494: Spain and Portugal (reigns until 1521).14971499: Vasco da Gama's first voyage from Europe to India and back.1499: Ottoman fleet defeats Venetians at the Battle of Zonchio.1499: University "Alcal de Henares" in Madrid, Spain is built.1499: Michelangelo's Piet in St. Peter's Basilica is made in Rome1500: Islam becomes the dominant religion across the Indonesian archipelago.[13]1500: in an effort to increase his power. Bolkiah founded the city of Seluronglater named Maynila, on the other side of the Pasig River shortly after taking over Tondo from its monarch, Lakan Gambang.[14]1500: Around late 15th century Bujangga Manik manuscript was composed, tell the story of Jaya Pakuan Bujangga Manik, a Sundanese Hindu hermit journeys throughout Java and Bali.[15]1500 Charles of Ghent (future Lord of the Netherlands, King of Spain, Archduke of Austria, and Holy Roman Emperor) was born.1500: Guru Nanak begins the spreading of Sikhism, the fifth-largest religion in the world.1500: Spanish navigator Vicente Yez Pinzn encounters Brazil but is prevented from claiming it by the Treaty of Tordesillas.1500: Portuguese navigator Pedro lvares Cabral claims Brazil for Portugal.1500: The Ottoman fleet of Kemal Reis defeats the Venetians at the Second Battle of Lepanto. The Yongle Emperor (13601424) raised the Ming Empire to its highest power. Launched campaigns against the Mongols and reestablished Chinese rule in VietnamUlugh Beg (13941449) Timurid sultan who oversaw the cultural peak of the Timurid Renaissance Johannes Gutenberg (14001468), German inventor who introduced printing pressSkanderbeg (14051468), who led the Albanian resistance against the Ottoman EmpireIvan III of Russia (14401505), Grand Prince of Moscow who ended the dominance of the Tatars in the lands of the RusKing Henry VII (14571509), the founder of the royal house of TudorSee also: Science and inventions 15th centuryRenaissance affects philosophy, science and art.Rise of Modern English language from Middle English.Introduction of the noon bell in the Catholic world.Public banks.Yongle Encyclopediaover 22,000 volumes.Hangul alphabet in Korea.Scotch whisky.Psychiatric hospitals[clarification needed].Development of the woodcut for printing between 14001450.Movable type first used by King Taejong of Joseon1403. (Movable type, which allowed individual characters to be arranged to form words, was invented in China by Bi Sheng between 1041 and 1048.) Although pioneered earlier in Korea and by the Chinese official Wang Zhen (with tin), bronze metal movable type printing is created in China by Hua Sui in 1490. Johannes Gutenberg advances the printing press in Europe (c.1455) Linear perspective drawing perfected by Filippo Brunelleschi 14101415Invention of the harpsichord c.1450Arrival of Christopher Columbus to the Americas in 1492.^ Crowley, Roger (2006). "The Conquestof Constantinople and the end of empire". Contemporary Review. Archived from the original on 22 August 2009. It is the end of the Middle Ages)^ Encyclopdia Britannica, Renaissance, 2008, O.Ed.^ McLuhan 1962; Eisenstein 1980; Febvre & Martin 1997; Man 2002^ Harvey 2005, p.14.^ Nanda, J. N (2005). Bengal: the unique state. Concept Publishing Company. p. 10. 2005 ISBN978-81-8069-149-2. Bengal [...] was rich in the production and export of grain, salt, fruit, liquors and wines, precious metals and ornaments besides the output of its handlooms in silk and cotton. Europe referred to Bengal as the richest country to trade with. ^ Winstedt, R. O. (1948). "The Malay Founder of Medieval Malacca". Bulletin of the School of Oriental and African Studies; 726729. doi:10.1017/S0041977X00083312. JSTOR608731.^ "An introduction to the Ming dynasty (13681644)". Khan Academy. Asian Art Museum. Retrieved 29 September 2018.^ Modern interpretation of the place names recorded by Chinese chronicles can be found e.g. in Some Southeast Asian Polities Mentioned in the MSL Archived 12 July 2012 at the Wayback Machine by Geoffrey Wade^ "Thousands in China are descendants of an ancient Filipino king. Here's how it happened". Filipiknow. 24 March 2017. "New Sulu King research book by Chinese author debuts in Philippines". Xinhuanet. 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