Leonardo Da Vinci Notebooks influence on Western Civilization

Introduction

Leonardo Da Vinci is a legend who is defined by his works of art, architecture, innovations and inventions. He is considered the ultimate Renaissance man who lived in the fifteenth century. Born in 1452 as an illegitimate son to a notary and a peasant girl, Leonardo held on to art more as a pastime, as opposed to craft. His unsocial characteristics such as notebook recordings and his ‘mirror image’ handwriting made him stand out in a period when great men such as Machiavelli and Michelangelo lived. His travels throughout Italy during his lifetime made him famous for his art and inventions. This is evident in both his complete and incomplete works, not forgetting his world-renowned painting of Mona Lisa. However, the point of note in the development of renaissance art was in the sixteenth century when the works of Michelangelo and Leonardo Da Vinci incorporated the Florentine perspective with the venetian mastery of coloring and oils.

Da Vinci’s life began by being cut off from society since he was an illegitimate child, and so he did not receive any type of formal education. However, he wanted nothing more than to prove that his artistry was equal, if not superior to his socially schooled superiors. In his notebooks, he confessed that he was fully conscious that he was not being a literary man would be blamed that he was not a man of letters. In addition, he continued to defend himself stating that even the best painting, much as education was based on the subtle observation of nature. His close observation made his works such as those in the scientific field unique. It was Da Vinci’s analytical observation that had the greatest of influences on his contemporaries.

The birth of Da Vinci coincided with the Gutenberg printing press’ invention, which led to the explosion of communication. One irony of the life of Leonardo is that his extraordinary ideas and inventions, which were written in his notebooks, remained buried for more than 150 years before any of them found their way in the world. One of the most outstanding characteristics of Leonardo was his handwriting that ran from right to left, with letters reversed do that they could only be read using a mirror. His creativity, love for nature and art as well as thinking for himself gave him room to think, to research, to paint and to draw. His unfinished works still remained an indication of the immensity and the dramatic efforts of his paintings.

In 1482, Leonardo’s life took a twist and he began making waves in Milan where he had moved as a result of a growing need to work on the Vatican as was requested by Pope Sixtus IV. This move to Milan was the turning point of his life and for western civilization, as we know it. His genius in many fields earned him recognition, fame and wealth throughout his life after his move to Milan. For example, Duke Ludovico Sforza became Leonardo’s patron after he demonstrated his skills in the area of military engineering. In addition, Sforza occupied Leonardo with painting work, sculpting and designing several court festivals. However, Sforza kept Leonardo working on designs of buildings, weapons and machinery. Therefore, Leonardo’s contribution to the world was mainly in the areas of flying machines, geometry, advanced weapons, canals, architecture, mechanics, and municipal construction.

Leonardo was notoriously known for leaving work undone because of his interest in many things (Letze and Thomas, 116). His desire to achieve perfection on the projects he was working on made sure that he spent time working on a single project. For this reason, some of his work was left half finished while others were just left at concept stages. However, upon his death, Leonardo is believed to have left the most number of completed and incomplete works in history (Malley, Donald, and Saunders, 228). After leaving his work to his heir, there was considerable loss of works by Leonardo ranging from his writings to his paintings. Modern scholars believe that about three quarters of the work of Leonardo Da Vinci were either lost or stolen. However, the remaining works prove great insight in shaping the modern world. He was a man who saw into the future, even at the time when it did not seem likely.

Painting was Leonardo’s first love. He was passionate about painting given that he did not receive any formal education (*Nationalgallery.org.uk*). To this day, Leonardo is considered one of the greatest painters of all time. Others say that he is the most diversely talented person to have ever walked on this earth. He is mostly known for both his paintings; the Mona Lisa and The Last Supper. Both paintings are the most famous, most reproduced and most parodied paintings of all time. The painting of Michelangelo’s Creation of Man only approaches the fame of the Mona Lisa. In 1466, when he was only fourteen years old, he was introduced to the best artist at the time; Andrea di Cione, also known as Verrocchio (L*egacy.mos.org*). His workshop guaranteed young Leonardo an education in the humanities. His talents were so great that it is rumored that when he helped Verrocchio paint the Baptism of Christ, Verrocchio never painted again as a result of the amusement of the young boy’s talent.

Leonardo’s paintings have revolutionized the way art is perceived and his love for perfection has increased the inspiration for quality (*Leonardodavinci.net*). Art has continued to be a great form of communication and expression. For instance, Leonardo paved the way for other great painters like Picasso whose works have continued to marvel. Western civilization takes pride in art since it traverses cultural, racial and religious discrimination (*Da-vinci-inventions.com*). Art is also a source of history because it depicts the times of the artist and the social, religious or political atmosphere. Leonardo’s paintings have also influenced the western world in the sense that they have become the object of parody for many years as well as replication. Leonardo Da VInci's work has been a source of entertainment for many years because painters have tried to make fun of the paintings (*Italian-Renaissance-art.com*). Their replication has brought forth a competitive nature in the art world that strives to push the limits of painting.

Leonard’s work on perspective painting is the product of Brunelleschi’s invention, which he perfected (*Engineering.com*). Such perfected works include the Adoration that remained unfinished, but highlighted a strict Albertian grid that lay on the pavement of the painting. Another illustration of perfection in perspective painting is The Last Supper that is placed in the Convent of Santa Maria Delle Grazie, Milan. Here, the vanishing point of the painting is placed on the right eye of Jesus Christ. Painting was, therefore, portrayed as a medium of expression and a rich source of recording events. An event such as the last supper is very significant among the Christians and such a painting helps to understand better an event as important as this.

Creativity was heightened at the time of Leonardo Da Vinci because of the intent for perfection and the need to paint more (*DCS*). On the other hand, the introduction of the French way of painting and a merger with the Florentine way promoted sharing of ideas, which has been a pivotal point for painters throughout history. Western civilization has flourished on the basis that people can learn from the predecessors and work to better their own work. The western culture has taken pride in the motion picture and the works of Leonardo have been pivotal its promotion. For example, a 2003 bestselling novel; The Da Vinci Code by Dan Brown was later made into a movie that sent ripples all around the world. The modern entertainment industry must have had had its share of Leonardo Da Vinci being in movies as well as video games like Assassin’s Creed, which have garnered massive support. Therefore, Leonardo’s work as a painter has helped change the world.

Leonardo’s interests and work in human anatomy have shaped the world that we live in (*ISSUU*). Although created in the 15th century, the works of Leonardo Da Vinci are still in use to this day. Thanks to his notebook known as The Anatomical Manuscript B, it is clear that His interest in anatomy of the human body began in the late 1480s. The first inscription of his works on human anatomy was dated 2nd April 1489, when he was still working as a court artist for Ludovico Maria Sforza who was the ruler of Milan at the time. At the time, accessing human material was hard because dissecting human corpses was looked down upon and shunned. Therefore, his work on the human anatomy had to take a break before he could find human material to work with. For this reason, he moved to other things like painting the Last Supper because he felt frustrated. His vast curiosity could not allow him to wait for a human corpse to show up. He felt that there was plenty more to do before times could change and the study of the human body could be looked at with awe.

The enthusiasm for human anatomy resurfaced in 1504, and by this then, he had become a public figure with enough influence to be allowed to conduct post mortem examinations (*Pasiraint*). His main source of human corpses was from executed criminals. This was a period of a major turnaround because he turned from a painter who did a little science, to a scientist who did a little art. Because his sudden interest was that there had been an explosion in investigative anatomy towards the end of the 15th century. The church was not against dissecting bodies as long as it was conducted with respect and the remains buried together. During his studies, he was trying to be pin-point accurate on the drawings he made as well as the information he wrote down. For this reason, he dissected about thirty corpses, averaging about two per year. His notebook is full of exclamation points which show that he was amazed by the human anatomy that he was studying.

His exquisite talent as a sculptor allowed him to fill cavities like the brain with wax and later made plaster casts of them (Kemp, Martin, and Marina Wallace, 202). This was done purposely to establish the true shape and for this reason, he became the first man to show the right shape of both the spine, as well as the tilt of the pelvis. One of the most famous anatomical drawings that Leonardo made was that of the unborn child in the womb, and perfectly attached to the umbilical cord. Although it is believed that the drawings of the female placenta were from animals, Leonardo tried his best to make it as detailed as possible. Because the lacking was that there was little or no access to female corpses at a time.

It is believed that Leonardo was literary 100 years literate ahead of his time because his drawings on how the human heart works and how blood flows were only validated in the 1620s (Kemp and Margaret, 112). The complete works of Leonardo Da Vinci in the field of human anatomy are very relevant in the western world today. Surgeons use imaging techniques such as MRIs and CT scans to see the details of the spine before surgery can commence. Leonardo made detailed descriptions of muscles and was accredited as being the first to show how the human spine works. Although the field of microanatomy was beyond his reach the time, it is believed that he anticipated progress in such areas. These advancements came five hundred years after his time on earth ended, and they still prove to have been inspired mainly by the works of the great Renaissance man. Had the works of Leonardo been published at the time of his life, then they could have been the most influential work ever produced on the human body. His works have shaped western civilization on the front of medicine and surgery. Even in the 21st century, his works are still referred to by scholars and medical practitioners, the world over.

Leonardo Da Vinci contributed greatly to the fields of architecture and math and his studies are of great importance to scholars in the 21st century (Hills, 3). Even without any formal education, he had a grasp of mathematics. Much like Einstein, Leonardo learnt the language of mathematics at an advanced level later in his life, but he still chose to use geographical shapes for computation. The use of geographical shapes was greatly influenced by his love for art. In mathematics, his main exploration was the realm of proportionality as well as spatial mechanics. He proposed that pure mathematics excluded the inexplicable qualities presented by reality, and which are better replicated via drawings. Therefore, he used drawings as a primary tool for studies in proportionality as well as spatial awareness that were later used in his engineering designs. It is also probable that ancient civilizations calculated their mathematical precisions during constructions by drawing the mathematics. Such an example would be the Egyptian pyramids.

His mastery of architecture led him to be involved in the official construction of the church of San Giovanni (Heydenreich, 13). This church later became a place of cultural significance for the Florentines. The sculptors for Renaissance Florence were regarded highly and so there was competition for architectural mastery. Later on, he devised a scheme for transporting the entire building once it had been completely built. He wanted it to sit on a marble base, which would make it more divine as well as being more authoritative. Most of his works in architecture included plans for entire cities, and cathedrals. His understanding of architecture enabled him to work on city buildings with the intent of making people’s lives better. However, some of his plans like that of lifting the church were well ahead of their time and it was not feasible to lift a church of that magnitude with the technology at the time. A notable work of architecture by

Leonardo was a design he made for a palace that had multilevel porticoes (*METMUSEUM*). It had more than common number of windows and porticoes, which would ensure proper air supply. The palace was narrow much like the streets of Milan. It is believed that this incredible design, if implemented, would have saved lives from the plagues that swept almost a third of Milan’s population between the years 1484-1486. When he blended architecture with painting, he developed the concept of vanishing points. This was best described in the Last Supper where the vanishing point is well above the viewer’s eye such that it remains in the same position no matter where the viewer stands. Although he had a rule of perspective, he defied it and still came up with a masterpiece.

Leonardo Da Vinci had interest in geometry and in turn, architecture became second nature to him (*ASCE*). In his notebooks, he laid out detailed plans as to how geometry can be used as a basis of stability in structures. Another use of geometry in his architecture was an underlying organizational structure of church plans. His insight in the construction of domes has revolutionized the world of architecture and it was not possible until a few decades ago. During his time, structures were constructed in cube-like forms but his inspirations and insight into the circle made it possible to have structures like the Madison Square garden today. Had it not been for his incredible insight and detailed analysis, it is still unclear if such structures would exist in our civilization today.

Leonardo Da Vinci was greatly mesmerized by flying birds and how much grace they used to glide over the atmosphere without falling or losing control (Duvernoy, 83). His interests in engineering began in 1502 when he was working for Cesare Borgia as a military engineer. This position offered him a unique position to continue with his engineering studies as well as to be more creative in this field. Primarily, Da Vinci was interested in ornithopters or machines that could imitate the characteristics of birds. His interest in flight paved the way for engineers in centuries that followed which led to the birth of helicopters that we know and love today. His insight into aeronautics paved the way for hand gliders and parachutes. However, being a genius at what he set his mind on made him literally a few centuries before his time. These concepts of flying machines were not tested until the early 1900s. His interests in engineering did not stop with flying machines, but he kept on going. Later, he moved on to concepts of warfare while serving under the Duke of Milan, Sforza.

Leonardo’s concepts in military tanks, catapults and submarines, have been of great influence to the modern scene of warfare (Clayton, 73). Western civilization has benefited immensely from his works in military concepts. He had previously studied the classical as well as the contemporary works of military engineering as he wrote in detail to the Sforza. In his letter, Leonardo wrote that he was proficient in the following areas; new weaponry, bombarding machines, bridging and trench draining. During the renaissance, firearms were inaccurate and they fired very slowly. This led him to design the first multi-barreled cannon on 1481 whose purpose was to overcome the slow rate of firing. Today, the multi-barreled canon is the machine gun that is widely valuable during warfare.

His interest in hydraulics made his work garner fame as well as considerable income (Dibner, 48). His many notes indicate that his work in hydraulics was a result of observation and presentation (Chastel, 52). He noted that before he proceeded (when he started his work on hydraulics), he would first conduct some experiments. Milan had several canals that had been constructed before him. However, there was one particular canal that Leonardo concentrated most. This was the Naviglio Grande or the Grand Canal. The canal earned 125 thousand ducats for Milan in revenue and it measured 71.4km in length and 12m in width. In 1506, he was commissioned to construct a new home for Milan’s governor, Charles d’ Amboise. This opportunity gave him the opportunity to study both the Fontelunga and Nirone waterways where he was able to perfect his concept by building small canals for the governor’s ‘garden of delights.' His fascination for hydraulics was only matched by his fascination for water where drawings can be found in his notebooks regarding water. His fascination of enabling man to breathe under water led him to designing buoys and breathing equipment, while at the same time thinking about how boats could move faster. He made a few drawings that were meant to have boats designed in the form of fish and made suggestions of how paddles could be operated using machines. When it came to warfare, he made a hydraulic that was meant to flood the Isonzo valley in case the Turks would launch warfare.

In conclusion, Leonardo Da Vinci was among the greatest men that ever walked this earth. His incredible mind, alongside his numerous talents, has gained him the title ‘the great renaissance man’ that is well deserved. His works in the 15th century continue to be relevant today, six centuries after he departed. Although he is famously known the world over as the original painter of the Mona Lisa, as well as the last Supper, his contributions to the world have continued to amaze and awe generations. He was a man of insight and peculiar character that afforded him the right to work on his own.

Although he did not complete many of the works that he started, those that have been made available created a blueprint of modern civilization. For example, his influence on the design of the helicopter propelled man to a height that would have been impossible to conceive. His works on human anatomy were so detailed that modern day scientists can only achieve such perfection with the aid of computers. He is a man of whom inspiration should be drawn because he worked so hard to understand the nature and to bring beauty to the world through his paintings and designs for houses and cities. He will always remain a great man for generations to come.

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