

# Astrology and Astronomy in Renaissance Works

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**Abstract.** The Renaissance period was characterized by several events and factors that made a central part in the transformational era. The scientific study of stars has significantly changed over the years and it has been a critical part of the evolution and transformation in the history of Europe. One of the things that flourished greatly during the Renaissance was the science of astronomy which involved the study of the stars and other astronomical bodies in space. This study was part of the period because of the role it played in the predictions and making future projections on the cultural, political and economic events and the situation in the transitional era. This paper focuses mainly on explaining the relationship between astrology and astronomy and how they all connect with the Renaissance period. The focus is also widened to capture the greater issues of the artifacts of the Renaissance era and how they have embraced astrology and the study of the planets and stars at large.

**Keywords:** Renaissance period, Europe, astrology, astronomy, artifacts.

## 1. Introduction

### 1.1. Astronomy and Astrology in Renaissance

The Science of stars is divided into two branches: Astrology and Astronomy. Astrology-the science of how the stars and planets affect and influence the world and mankind Astronomy- the study of the heavens, chiefly plotting the positions of the stars and planets and charting their movement. Renaissance can be defined as the period that marked the beginning of a transition in the history of Europe from the ancient middle age era to the new era of modernity that is characterized by several elements. The history of humanity and the general transition in different eras have taken shape gradually over the years [1]. Technology advancement and educational changes have taken place in various aspects of human history. One of the major disciplines that have been at the center of modernity is technology and how it relates to the various astronomic elements. One of the most effective ways that can be used to understand humanity is to look into how the relationship between various events and relationships has taken place in the history of humanity. Over the years the relationship between the science of stars has come out to be a key pillar in the history of Europe and how it has changed significantly through various years. Studies have established that one of the branches of the science of stars that flourished in the Renaissance was astrology.

During that era of transition, people were keen on having a clearer idea of what the future held for them. Anything that existed and was in a position to give them any glimpse of the future was treated with a lot of care. It is this idea and ability of Astrology to give people the ability to make predictions that made it flourish. Despite the fact that it lacked some elements of perfection and was in some way uncertain, they still remained relevant to the then society and the history of that time tend to favor astrology. The understanding of how the science of this feature affected mankind was paramount and there was the need to find out more about the whole idea of the future and the direction humanity would take with the introduction of modernity. When Europe was gradually moving from the then era to what has come to be termed as modernity, there was a need to have some well-calculated move and that is the point when the concept of astrology came in. It helped bring surety and some elements of the accuracy of what was to be expected. Renaissance astrologers were quite effective in making projections and they were also keen on ensuring that they had every form of accuracy in making predictions [2]. The scope of prediction was quite wide as it varied from the factors that would define the future, to the risks associated with investments and the general weather conditions. There was a

need by society and the people who were working on the new era and the element of modernity to have some clarity and avoid any repercussions that would come as a result of the changes in the societal, physical, environmental, and technological changes in scope in Europe. Astrologers and other scientists that studies nature and connected them to humanity in Europe focused on the critical factors that were supposed to shape society. They were keen on the analysis of the various elements and components in the world and society. They dealt with countless clients. And the various people in the society that would help them have an accurate picture of how the modern era would look like.

The connection between the science of stars in its branches of astrology and astronomy and how it actually came out in the Renaissance era would be greatly important in defining society. This study would be important in getting clarity between the various elements that shaped society and redefined Europe and even the world at large in the Renaissance era.

## **1.2. Astronomy Sat in the Renaissance Map of Learning**

Astronomy is a very wide field and when connecting it to the ancient world it is important to have clarity on the connection between the concepts. There is enough evidence that even in the learning of the renaissance map, the concept of astronomy took a center stage. Renaissance focused on the things that saw the change from the ancient to the modern era and astronomy interestingly focused on space and the things in it. Despite the renaissance having taken place and witnessed on the planet, it had astronomy as its major defining element. Astronomy is considered to be one of the oldest fields of science that was critical in defining humanity. When looking into the chronology of events in the history of astronomy, it comes out that Renaissance was actually part of it between (1500 and 1700 AD). Modern science seems to have incorporated both Astronomy and astrological concepts.

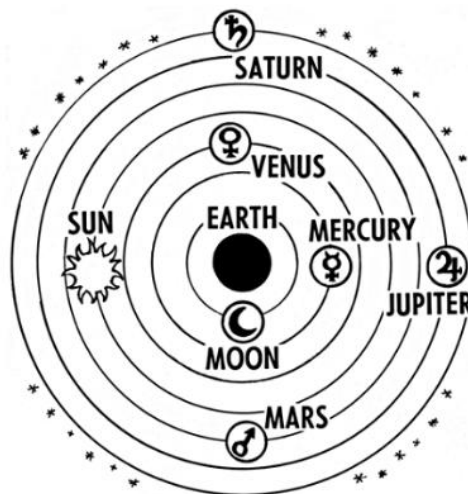
One of the reasons that make it easy to build the conclusion that astronomy sat at the center of the renaissance is because of some inventions and even scholars that were at the center of these concepts. One of the main instruments that have been used over the years to study more innovation the other related discoveries in the field of astronomy is the telescope. It is also the Renaissance era that brought about the issue of discoveries made by people like Sir. Isaac Newton [2]. One of the things that have been associated with the Renaissance was the rediscovery of classical literature, art, and philosophy. It is at this point that the element and even the study of astronomy came in. The events that transpired between the 14th and 17th centuries and the impact they made clearly resonate with the ancient eras and also connect to modernity.

The Renaissance Maps of learning had several elements and among them was the age of exploration which basically gave the timelines that could be used also in explaining more about the era. The age of exploration went shortly after it began and that is from 1492 going all the way to the end of the era. European powers like Spain highly valued the maps as they got their scope of operation and power from the maps. One of the main elements that showed the connection between astronomy and this era and made astronomy come out at the center of the renaissance was the Mercator's Projection. Mercator between 1512 and 1594 created what was later known as the Flemish cartographer. It is what showed the first indication that From the world map, people could actually build a connection between the various elements of the society and how they shaped the other materials or bodies in the space.

## **1.3. Planets in Renaissance Astrology**

The study of the stars covers several areas of nature and the physical features that exist in space. Apart from the stars, the solar system also has planets among them being the earth on which the scientists who study astrology live. The Renaissance philosophers were also very keen on defining the universe and the planets as well. One of the things that stand out about the universe is the fact that the planets have different properties and the era of modernization brought the urge of wanting to find out more about the differences. The planets made a difference and they were central in defining the different worlds [3]. There was the Celestial world, there was the issue of the divinity world that also had the angels and the intelligence that is seen in the material worlds. The Planets were originally

seven in number and it is from that point that the different scholars in the era of transition came up with the definition of the various scopes and the language that defined the various groups. One of the individuals whose name comes up with the various history of the concepts that surround the planets is George Penczs and who described Mercury and how it related to the other planets. The geocentric of the universe took the shape shown in Figure 1 [4].



**Figure 1.** Diagram with planets circling the Earth [4]

Initially, the earth was seen to be pretty close to the sun, unlike the others which were later changed with the changes and the discoveries that relate to modern technologies and the transition eras [5]. The understanding of the various eras of modernity brought significant change in society and redefined geography.

## 2. Artists Who Studied Astronomy and Astrology in Renaissance Age

### 2.1. Albrecht Dürer

The study of astronomy and astrology in the Renaissance age saw the rise of several artists one of them being Albrecht Durer. Durer was one of the most prominent artists in that period and his prowess varied from being a painter, a paint maker, and even an important theorist in that great era. He was born at a time when the history of the renaissance was gradually taking shape and Europe was slowly transitioning to the new or modern era. Albrecht actually made a mark in the field and his work can actually be considered to have created a link between the various groups and how they were carrying themselves [1]. His extensive corpus of work includes copper engravings, a number of portraits and self-portraits, altarpieces, and religious artwork. In contrast to the rest of his work, his woodcuts, such as the Apocalypse series (1498), have a stronger Gothic influence. He wore many hats and it is these that actually explained who he was in society and the relationship bet was able to create when it comes to the practice and its relevance to society.

The one thing that stands out in the history and the work of Albrecht was the fact that he was able to create a map that linked the various eras and the concepts that redefined math. The astrological article and Chart were great and they played a key part in the history of astronomy. His planetary domains are among his major works of painting and how he linked science to history in a tremendous way. Astronomy brought out the study of the stars and the solar system at large. Albrecht Durer brought what was later termed as the dominant planets. He brought out something that he described as the 9 planets out of which he distinguished the dominant and the others.

### 2.2. Hans Holbein the Elder

Hans Holbein the Elder painted *Portrait of Niklaus Kratzer*, 1528, oil on panel. He is the next painter that played a central role in the Renaissance style and embraced its type of art. His principal

artwork was altar paintings and the history of humanity and the field of artwork in Germany. His work mainly incorporated several concepts and ideologies that not only focused on science but also had more to do with religion [6]. He was a key figure in the history of the Renaissance and how it actually showed the era of transition the one thing that comes out is that the various events that he foresaw actually came out to be pretty accurate in the art. His painting was also clearly connected to the art that was at the center of the history of the various groups and the various scope of the faith of the groups.

Hans was among the ones or individual artists that made the connection between astronomy and the renaissance come out a little clearer in the history of the various groups and eras. The dynamics of the history of Europe were mainly dependent on the individual groups and the various approaches that were taken by the astrologers and the scholars together with the ideas presented in various pieces of art. Art and the individuals who created them like Hans were central in defining the direction of the era and how the groups were actually able to make society understand the projections.

### **3. The Application of Astronomy in Artifacts**

#### **3.1. Albrecht Dürer and Johannes Stadius, Imperial Astrolabe, 1515, Woodcut with Hand Colouring**

Astronomy as a discipline has been central in defining humanity and also outlining the various factors that played a central role in the history of artifacts. It came out to be used or applied in the field of art and most of the artifacts embrace it as some form of beauty. Before looking into the general application, there are astronomical artifacts that one should also know how they relate to the ancient era and the science of stars. Evolution could help one build a proper understanding of the same idea and concept. Basically, Astronomical art objects are those artifacts that have been constructed mainly by an antic civilization that focused more on relating the conjunction of the celestial bodies.

Being used as part of the beauty in society both past and the contemporary generation has come out to be one of the major applications of astronomy in the field. The artifacts that have been created on the basis of astronomy have been used to decorate houses and workspaces among others. An example is a situation where the art that presents the solar system is used to define the whole practice and how it has come out over the years [2]. The beauty parts are not only used in society and the general practice that is embraced by the religion or cultures, but it is also actually seen to be used even at the individual levels.

The historical and political backgrounds of the painting have been applicable in explaining the prowess of the various societies, countries, and even groups. The astronomical artifacts have been applied in making the critical elements that define the society and how they actually resonate with the ability to concur the various spaces. The art is used to define the various plans and even the direction the various political wings would want to take in the future. The overall civilization that was at the center of the construction of these monuments put them in place for several purposes. They included being used in religious events and the ceremonies that were conducted in the social domains and in society. The history of these monuments had so much to do with the direction the society took when dealing with various social religious and cultural issues. The artists wanted to bring or create relevance or a link between the various time periods when they were creating the artifacts. The application of these arts has significantly dominated decoration and the beauty aspect of the people and society at large. So, despite science being at the center of growth in society, it also realigned the practice and also outlined the emotional element that brings with it beauty and decoration in society.

#### **3.2. Melencolia I, 1514, Copperplate Engraving**

The melencolia painting also played a central part in explaining the application of astronomical artifacts in society. The historical and political background of the painting defines one of the critical scopes of the society and the German political realm that the society in this case was mainly referring

to and the art was created as a reflection of the society [7]. This art embraced the idea that the belief in a given art and its relevance to society start with the individual perception and view. The lie or the falsehood about a piece of art exists in the mind of the individual.

For nearly 500 years, audiences have been moved and provoked by Albrecht Dürer's mysterious *Melencolia I*. *Melencolia*, or melancholy, is the engraving's obvious subject, as inscribed on the parchment that a flying bat-like creature is spreading out. However, there is still disagreement as to what Dürer meant when he used the phrase and how the print's enigmatic characters and puzzling objects add to its significance. *Melencolia* is a testament to Dürer's tremendous intellectual ambition and creative imagination because it simultaneously invites and resists interpretation.

### **3.3. Hans Holbein the Elder, The Ambassadors, 1533, Oil on Panel**

This image honors two successful, intelligent, and influential young men. French ambassador to England Jean de Dinteville, age 29, is pictured on the left in 1533 [8]. Georges de Selve, a 25-year-old bishop of Lavaur who has served as an ambassador to the Holy See, the Venetian Republic, and the emperor numerous times, is standing to his right. Additionally, it is customary to depict educated persons with books and equipment [9]. A portable sundial, a celestial globe, and other tools for studying the heavens and telling time are among the items on the upper shelf.

### **3.4. Francesco Pesellino Astrology from the Seven Liberal Arts ca.1450, Tempera on Panel**

This is one of the arts that greatly described the history of society and how it comes out in the astronomical dimension to explain the success of society in presenting various issues in art. Francesca was among the greatest in the field of art and his work was paramount in defining society and making projections of what is to be expected in society. The frame and the overall presentation of the art basically had the history of the people and the transformation in the science of stars.

In this artwork, the literal eye was the initial instrument used by early astronomers, who relied on what they could see with their own eyes to determine the motion of the stars and planets and to anticipate how they would move in the future. People have been observed to be interested in stargazing from some of the earliest records; in fact, cave drawings have been discovered that show the night sky [10]. The sundial, which used sun shadows to gauge the time of day, was one of the first gadgets to be created. Another ancient tool that was created in the second century BCE was the astrolabe.

## **4. Conclusion**

Astronomy and astrology are two concepts in the field of science that have shown a clear connection with the transformation of the history of Europe from the historical times to the modern era or what is witnessed in contemporary society. Astronomical factors have been seen to be at the core of the 14th and 17th centuries that were witnessed and seen in various parts of the world. The science of stars has been seen to be incorporated into the artifacts and the art culture that is embraced by various scholars, theories, and philosophers. Astronomical objects are constructed with religious, scientific, and cultural meanings encrypted in them. The arts are normally created with the aim of embracing beauty or decoration at various levels. Astronomy has been seen to be at the center of a renaissance in various eras and generations.

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