

Zoriana Lotut

Uniwersytet Warszawski

The Use of Blue in the Middle Ages and Beyond

Abstract: This article deals with color symbolism in the Middle Ages, starting with historical facts about the technical side of color production, and then tracing a range of major colors – white, black, red, gold and blue – and their use in medieval visual art and cultural clichés. The article focuses on a change in the symbolic meaning and the cultural function of blue which took place during the period. It is demonstrated how the blue color started to establish its popularity in the Middle Ages. Examples of selected visuals and literary descriptions of garments and other varicolored objects and their implications are provided. It is also shown how medieval color symbolism is borrowed and reinterpreted in further epochs up to the creations of contemporary artists and fashion designers as well as objects of social and cultural usage.

Keywords: blue, color history, color symbolism, mediaeval culture and literature

Color perception is located on the intersection of physical, physiological, psychological and cultural data. This logic is admitted by most scholars who research the phenomenon of color; for example, it is observed in the structure of Goethe's treatise on color, where he first discusses the visible and tangible aspects of colors and follows with chapters on the invisible effects of colors on human psyche and culture. This approach is indispensable in any research on color because very often physical colors do not coincide with cultural ones, so much so that physiological colors, the ones that we see and how we see them, may vary from one person to another depending on individual experience, and some physiological conditions prevent people from completely seeing some of the colors from the visible spectrum. On the other hand, it must be admitted that the material and the mental levels on which the notion of color manifests itself are sometimes interrelated and influence each other. In order to be able to understand the meaning of cultural color codes and how they evolved and functioned in a given historical period and geographical location, we will consider a number of cultural, historical, economic, and social factors. This article aims at tracing the emerging popularity of blue and some accompanying shifts in cultural color coding which occurred with the establishment of Christianity as the dominant religion and ideology of mediaeval Europe. This shift is to be investigated through a selection of texts, starting with the Bible, where blue still plays a rather marginal role, and proceeding to mediaeval religious and secular literature, where the color not only moves to the mainstream but where also one of its hues – the ultramarine blue – receives a high-rank connotation, related to the spiritual and the divine. Finally, some examples of contemporary art and life will be given to demonstrate that this mediaeval color-code shift continues to evolve nowadays.

Blue in the Bible and the Antiquity

Blue is now one of the most favorite and most widespread colors in the Western world but there were times when blue was socially and culturally ignored, avoided, or even tabooed. The transition from blue as an outcast to blue as one of the most loved colors in Europe occurred during the Middle Ages and it took centuries of effort, lucky coincidences and even royal patronage to promote the color to its current mainstream status. But before giving the details of this glorious voyage of blue, let us start from the point in history when blue is almost inexistent in European culture and people's consciousness. It is no coincidence that linguistic terms for blue were very ambiguous and blurred in many languages of the ancient world and in some of them this color was linguistically ignored for a very long time. For example, in ancient times we often find words that denote the coloring substances that produce a certain tint rather than the abstract notion or cultural idea of color. Or else, words that stand for mental phenomena are often synonymous with certain colors, which are culturally associated with given emotional state.

In the Bible we encounter a clear linguistic reference to three colors only: white, black, and red. However, in most cases, these color names also describe abstract notions, as manifest in subsequent translations of the Bible into Latin, Greek, and vernacular languages. For example, where we have a Hebrew word for *bright*, the Latin often opts for *candidus* (white), or even *ruber* (red); the Hebrew word for *dirty* or *dark* turns into the Latin *niger* or *viridis* and vernacular *black* and *green*; the Hebrew for *pale* turns into the Latin *albus* or *viridis* and vernacular *white* or *green*. The word for *red* in Latin and vernacular translations often replaces a vast scale of phenomena in the original Hebrew or Greek texts, associated with this color: the notions of wealth, power, prestige, beauty, love, death, blood¹, and fire are often translated as *purpureus*, i.e. red. (Pastoureau 2000: 19)

Whether this is a coincidence or not, the three Biblical colors are also the most widespread and available pigments on earth, as Phillip Ball points out while referring to early prehistoric paintings such as the Lascaux cave murals, whose palette consists of these three basic colors (84). However, it looks like this chromatic triad is also a cultural and psychological one because, technically speaking, the ancient world was familiar with many more coloring substances and could obviously afford a richer palette. The three cultural primary colors seem to serve as the archetypal color pattern that has remained unchanged throughout history. Their mental and cultural nature persists and re-emerges in various artistic forms in further epochs. For example, the triple color code is present in numerous fairy tales, as in the story of Snow White, where the main character's absolute beauty consists in her skin being "white as the snow", her hair "black as the ebony", and her lips "red as the blood".

The same color scheme is present not only in literature and not only in the Western world, but also for instance in Hinduism, where the Trimurti of Brahma, Vishnu and Shiva is described in terms of, respectively, red, white and black. The triad of colors is

1 This particular connection between *blood* and *red* in the context of the Bible has a very obvious linguistic explanation as the Hebrew words for *red* and *blood* are etymologically related: "מִרְדָּה" (red) has two root consonants in common with "דָּם" (blood).

characteristic of Christianity as well. For example, it appears in the visions of mediaeval mystics. Hildegard of Bingen, in particular, repeatedly makes use of these colors in her *Liber Vitae Meritorum* as well as *Scivias*, when she envisages the souls of sinners to be tortured with, respectively, black, red, and white flames for the sins of infidelity, bitterness, and trickery and mockery, or when she describes a giant Being appearing from the abyss and blowing a trumpet, with the three winds of red, white, and black coming out of it. Hildegard explains this vision as the Word of God blowing Words of Life and producing the triple creation, where the red represents the fire of the Creator's Love, white – the cosmos originating from the Divine Light, and black – the sinners and evil spirits (Hildegard von Bingen 2007: 44).

In the ancient world, blue was certainly not popular and widespread and did not have the unanimously positive connotation it enjoys today in the Occident. A positive meaning was attached to blue back then only in the case of light blue, which could stand for the firmament or air, the celestial spheres, and even paradise, depending on the cultural tradition and location². Dark blue, on the other hand, when used in ancient visuals almost always signifies negative concepts: the underworld, death, monsters, etc., probably due to the fact that the darker tint of blue was visually synonymous with black in ancient cultures and all the negative attributes of black were consequently projected onto it.

In the Roman Empire blue was strongly connected with the barbarians coming from Germanic or Celtic tribes, and thus with the uncivilized, danger and evil, so that even its presence in human appearance, for example in the form of blue eyes, was not seen as aesthetically attractive. Additionally, blue did not function as the color code for water as we know it today and in the antiquity the sea was believed to be either green or brown. Also, it is obvious that in many European languages the vocabulary for blue often belongs to the linguistic and cultural sources in which this color was more functional and popular, i.e. to either Germanic or Arabic languages. Latin did not have its own word for blue apart from presumably *sirus*, which turned into *ciel* (*sky*) in contemporary French, probably because of the above-mentioned cultural tradition to link light blue with the sky, firmament, and heavens. Most contemporary European languages make use of either Germanic *blau* or Arabic *azur*, or both.

Finally, speaking about the Biblical vocabulary for blue, one must mention the word *tekhelet*, which is believed to denote it, though with much uncertainty and disputation. Some argue that the Biblical *tekhelet* does not stand for the blue color as such. Technically, *tekhelet* can be any hue of blue, green, or violet. Besides, few of the colorants used in Biblical times gave a stable and precise color, and even in fabrics the color continued to slightly change its hues in time. Additionally, there is no historical continuity that could serve as evidence of the connection between this linguistic term and the existing dye that is precisely blue in color as the practice of textile coloring in *tekhelet* that existed in Biblical times was interrupted.

2 It is interesting to note that some languages preserve this linguistic differentiation between dark and light blue in their vocabularies. For example Ukrainian language has *синій* for dark blue and *блакитний* for light blue. Another interesting example is the Polish vocabulary for this color, which not only differentiates between dark and light blue but names one of the hues with the word etymologically connected to the word *sky*: *niebieski* (intense blue) and *niebo* (sky).

Blue in the Middle Ages

When the Earth was first seen from outer space, it turned out that blue prevailed in its coloring and the name the Blue Planet was coined. However, objects or substances containing blue pigments are scarce on the surface of the Earth, so people had to be very inventive to get them. Apart from the natural sources of blue, an artificial pigment of blue is known to have been created on the basis of calcium copper silicate in ancient Egypt, hence its name, Egyptian blue. It was produced by melting sand together with copper minerals and chalk. In the Roman Empire this kind of blue was called *caeruleum*, but in the Middle Ages its production was abandoned, and it was completely forgotten. Furthermore, according to Philip Ball, even though ancient Greeks and Romans were familiar with Egyptian painting techniques, which had developed quite a vibrant palette by that time, they deliberately opted for a four-color scheme of black, white, red, and yellow or ochre, accentuating thereby the classical ideal of form over color, as opposed to the sensuousness and vibrancy of Oriental art (102). The choice of the black-white-red-yellow/ochre scheme had been motivated by yet another cultural peculiarity of ancient Greece, where the process of mixing paints by the artist was compared to the process of harmonious mixing, or *harmonin mixante*, of the four elements – earth, water, air and fire – in nature (Gage 2008: 11). All of this changed during the Middle Ages, though.

Mediaeval culture developed its own cultural concept of colors. As described by Umberto Eco in his book on mediaeval aesthetics, art, and beauty, the period's chromatic tastes were characterized by immediacy and simplicity; much attention was given to mathematical harmonies; and, most importantly, attempts were made to obtain the maximum intensity of color with that intensity of light that passes through and floods it (78-80). The stained glass of Gothic cathedrals is probably the best manifestation of this idea.

Speaking of pigments, among the natural types of blue colorants that could be found on our planet were stones, minerals, and plants. For example, the ultramarine deep blue tint was obtained from lapis lazuli, which was the most expensive and most highly reputed among pigment sources on account of its stability and richness of color. In the late Middle Ages and early Renaissance the lazuli stone was brought from a distant province in Afghanistan. The creation of a ready paint from the stone was laborious and time-consuming so its price was at times higher than that of gold. It must be stressed that this pigment had been known to people long before and was mostly used in Asia. Lapis lazuli was also known to Egyptians but they used it mostly as a gemstone in jewellery, not for a pigment. Prior to the Middle Ages, the technique applied to obtain the blue colorant from lapis lazuli consisted in merely grinding the stone, which did not produce the fascinating luminous color subsequently to be known as ultramarine blue. When lapis lazuli is simply mechanically ground, it turns into a greyish powder and has no extraordinary coloring properties, which are believed to have been obtained only around the beginning of the 12th century by a groundbreaking technique which is considered a purely mediaeval invention (Ball 2010: 343).

Luckily, a book survives from the turn of the 14th and 15th century, written by a Florentine painter Cennino Cennini, which gives us a detailed account of the conventional painting techniques of the time, including the recipe for ultramarine pigment extraction from the lapis lazuli powder. The problem with this semi-precious stone is that apart

from its major component, the lazurite mineral, which gives it its distinguished deep blue coloring, the stone may also contain irregular “veins” of either white (calcite) or metallic yellow (pyrite), the latter being often mistaken for gold because of its visible resemblance to the precious metal. Thus, when ground, the lazuli stone turns into a dull bluish powder very distant in color from the bright ultramarine hue. In order to remove the impurities and extract the pure pigment, according to the instructions given in *Il Libro dell'Arte* by Cennini, one has to mix the lazuli stone powder with bee wax, resin, and mastic gum, which are supposed to glue all the components of the powder except the pigment. Pure pigment can then be easily washed away with warm water, while the wax glues all the impurities (37-38). Contemporary researchers have tried out Cennini's method and found it to work perfectly well (Ball 2010: 345).

Alternative to the luxurious pigment of lapis lazuli were less expensive pigments extracted from plants. Among the plants yielding blue colorants the two most popular ones were woad (*Isatis Tinctoria*) and indigo (*Indigofera Tinktoria*). The former, less expensive, was cultivated in Europe and, notably, contributed to the economic flourishing of the Toulouse, Albi, and Carcassonne area in the 15th and 16th centuries, which became a center of the cultivation woad for obtaining the blue dye.

Because of this hierarchy in the value of pigments, the actual application of coloring substances of different origins was also subordinated to a certain cultural and artistic hierarchy. The status of the depicted person or object was expressed by the quality and price of the material and pigments used in the depiction. Thus, in one and the same image by Fra Angelico three different types of blue pigment are used for the three appearances of blue in the picture. Lapis lazuli, the most expensive of all existing pigments of blue at the time, is used to color the garment of the Virgin Mary, who is the dominant figure in the image. To color the sky, the blue pigment obtained from azurite is used. Moreover, the architectural elements are colored with blue produced from herbal pigments, the less expensive ones.

Even though at this point in history blue was still a very rare color both culturally and socially speaking, with its usage often restricted to narrow areas of human activity, during the Middle Ages the color gradually started to increase in popularity and influence, especially as a cultural code. Among cultural peculiarities concerning the use of blue is, for example, the fact that the color of water in the Middle Ages was still conventionally green. It was only in the 16th and 17th centuries that there appeared the tendency to conceptually depict water as blue. This change led to the practical advantage of better distinguishing waters from forests in the later cartography. Nevertheless, in the early Middle Ages the main colors that still dominated the intellectual and aesthetic spheres were the three colors of the Bible, the primeval triad of black (the color of humility, but also of death, mourning, repentance, etc.), white (associated with purity and the divine, thus often used in the context of celebrations of holidays connected with Christ and the Virgin Mary), and red (associated with the Holy Cross and especially the Holy Spirit). In the early Middle Ages blue was even less popular than green and yellow.

In the later Middle Ages blue started to change its status and gain terrain in the cultural and social life of the Occidental world. One of the first steps to popularize blue was the artistic representation of the Virgin Mary, who, it must be noted, did not “wear” blue before the 12th century and was mostly depicted in dark colors that were supposed

to accentuate her mourning for Jesus. Nevertheless, at the beginning of the 12th century there occurs the tendency to replace the darker tones of the garment in Marian depictions with blue. The cult of the Virgin increases approximately in this same period in Europe, which contributes enormously to the popularization of the blue color, which is now an integral part of the image of the Mother of God. However, the use of blue is limited to iconography, while the liturgical color of the Virgin Mary remains to be white. Later on, in the Baroque, her iconography becomes “gilded”.

By way of imitating this new tendency in depicting the Queen of Heavens, royalty started to wear blue garments and increasingly use blue in their heraldic symbolism. Thus, statistically speaking, the frequency of azure in coats of arms across Europe is about 5% in the year 1200, but then goes up to about 15% within just some five decades, and by the year 1400 it reaches about 30% (Pastoureau 2000: 49). For example, King Philippe II of France of the Capetian Dynasty introduced into his heraldic symbolism the golden fleur-de-lis on the ultramarine background. This choice is likely to be related to the homage the king wished to pay to the Virgin Mary, who was believed to be the protector of the kingdom of France in general as well as the Capetian dynasty in particular. Due to all of these circumstances, the end of the 11th and the beginning of the 12th centuries can be regarded as the turning point at which blue begins to widen its presence both in quality and quantity in the European culture and society.

Philippe II of France was not the only royal personage to exploit the aesthetics of blue, which also comes to be presented as the color of the legendary king Arthur. Color codes are a central issue in Arthurian stories and chivalric romances on the whole. For example, the red knight is often the one with bad intentions, the black one is somebody who prefers to conceal his identity, the positive connotation is attributed to white knights, who often play the role of friends or protectors, and finally green in the code of chivalry is usually attributed to younger knights or those whose behavior is likely to cause disorder. Blue is completely absent from the color symbolism in literary texts up until the middle of the 13th century. Afterwards, when we find images of the legendary king Arthur, he is depicted wearing blue, or his coat of arms is said to be three golden crowns on the blue background, which visually closely resembles the golden fleur-de-lis on blue of the French monarchy.

The combination of blue and gold is not a coincidence. The case of the coat of arms of Philippe II brings forward one more aspect of blue, concerning its symbolism in combination with gold. The latter was treated as the color of the divine light in medieval visual art. Gold as a literary and cultural symbol carried an allusion to the possible transmutation of human nature analogous to the one that alchemists searched for within earthly substances in their attempts to turn those into gold. Gold was a kind of spiritual alchemy of transformation of humans via God and in the name of God.

For some reason these two colors, blue and gold, seem to have fascinated people both on the aesthetic and the conceptual level. In the early Christian iconography gold is often used as a background representing the metaphysical space of heavens. Gold is valued not only because of its price but also for its visual qualities. Due to its luminosity but also its opaqueness, it creates the impenetrable wall of the golden light of the Garden of Eden. Furthermore, gold in visual art was valued also for its unique property to reflect light like no other painting material. Mediaeval icons were destined to be looked at in the

candlelight, and when the flickering light of the candle played on the surface of the icon covered with gold leaf, it created mesmerizing effects that fascinated people.

Blue, on the other hand, is in sharp contrast with the warmth and brightness of gold. Nevertheless, in the Middle Ages there occurred an innovation in the depiction of Biblical scenes and blue became an alternative to gold in visual symbolism. The interchangeability of gold and blue in the depiction of theological Heavens and the symbolic proximity of the two color codes may have occurred for a number of reasons, one of them being the equally high material value of gold and ultramarine blue. The strong conceptual connection of color and light in mediaeval culture could be another reason for which this exact kind of blue, the ultramarine, with its extraordinary luminosity, played such a crucial role in iconography and competed with gold, previously the only *lux*, or divine light, in visuals. It was not just any blue but the ultramarine blue that was given the honor of being associated with the divine in Christian iconography in mediaeval Europe. Cennini described this blue pigment as “noble, beautiful and more perfect than any other”, adding that “only thanks to this color we could reach magnificence” (38).

In Middle English literary works the medieval color code of blue is manifested, for example, in *Pearl*. As observed by Lucy D. Anderson, colors in this dream-vision poem serve as the *ductus*, that is, they direct and guide the reader from the “terrestrial-natural”, through the “terrestrial-supernatural”, up to the “celestial-supernatural”, and depending on which of these environments is depicted, different synonyms of one and the same color are used, which creates a peculiar semantic hierarchy, similar in its logic to the one that was characteristic of mediaeval paintings, like Fra Angelico’s aforementioned *Annunciation*. This hierarchy is especially observed in the poem’s use of blue. When the color first appears in line 27, in the context of a mundane garden, the word *blwe* is used to describe earthly flowers; in line 75, a different synonym of blue, *ble of Ynde*, meaning indigo, is employed to visualize the tree trunks of earthly Paradise; finally, in line 421, when blue is associated with the divine, the word for the color is *hevenes blwe*.

Julian of Norwich, an English visionary of the 14th century, also made use of blue. In chapter 51 of her *Revelations of Divine Love* she describes the Lord’s clothing as being “blue as azure”, and further in the chapter she explains the meaning of the color: “The blueness of the clothing betokeneth His steadfastness”. This passage illustrates the positive connotation of blue, which is loaded with strong spiritual significance as it is attributed to God. On the other hand, in chapter 16 of Julian’s book, blue is imbued with negative connotations as it is used to describe the changing color of Christ’s face as He is dying on the cross: “I saw His sweet face as it were dry and bloodless with pale dying. [...] and then turned more dead unto *blue*; and then more *brown-blue*, as the flesh turned more deeply dead”. In these two different contexts Julian uses additional color references, of *azure* and *brown*, respectively, presumably to locate *blue* more precisely on the cultural color scale. In her text blue is connected to a hierarchy of phenomena: the death of the Son in His humanity and the divine steadfastness. By adding brown in the description of the death scene Julian visually darkens the blue, while the azure hue in the description of the Lord’s clothes visually lightens the color. This usage is very similar to the differentiation between dark and light blue that had existed long before the Middle Ages, when dark blue was associated with death and the underworld, and light blue with the heavens.

Blue Beyond the Middle Ages

The famous *Book of Kells* created around the 8th century on the island of Iona by St. Columba contains four different varieties of blue, which is not less than some of the most refined manuscripts of the 15th century, like *The Book of Hours of Duke de Berry*. However, it is not the quantity and quality of blue as color or pigment that underwent changes during the Middle Ages, but rather its cultural and social function. The status of this color changed from being secondary and peripheral at the beginning of the period to the color in vogue, aristocratic, royal, and privileged over others. This change gave blue the chance to grow even more in popularity and influence through the coming epochs and to establish itself as the most widespread color of today.

In our times an interesting allusion to the color codes of blue and gold can be found in works of French painter Yves Klein, famous for his experiments with the blue pigment. Because Klein wanted to achieve the “pure pigment” effect, he collaborated for years with Parisian chemist Edouard Adam in order to find a medium that would be able to hold pigment to the canvas but at the same time not obscure the brightness and depth of the ultramarine. Klein succeeded in this and created a series of monochrome paintings. A peculiar instance in his artistic career are portraits of his friends, the series which Klein started to execute in January and February of 1962, and which consisted in applying pigment on the relief copy of friends’ bodies attached to the canvas covered in gold. By depicting his friends in ultramarine blue on the golden background the artist created images of his friends in sync with the iconographic representations of the divine in the European Middle Ages. Far from being an intuitive coincidence, this was a result of thorough thinking and intentional inspiration by mediaeval culture. Spiritual and artistic quests were inseparable for Klein and culminated in the less known *ex voto* that he offered to the monastery of Santa Rita de Cassia, devoted to Saint Rita, whom he considered his patron saint. The votive offering was a box of Plexiglas divided into sections, which contained gold leaves, red pigment, and the now famous International Klein Blue pigment, thus visually forming the three contemporary conventional primaries: red, blue and yellow, the last one being replaced by its visual synonym, gold.

Picasso’s “blue period” also manifested the meditative quality of this color. What is more interesting, in this series of paintings Picasso made use of Prussian Blue, one of the darkest pigments of blue. Indeed, this pigment, invented at the beginning of the 18th century, is visually so dull and somber as to have been recommended to artists for depiction of night landscapes and sky. For Picasso, it was certainly the best choice for an artistic expression of sorrow caused by the tragic loss he experienced at that moment. Furthermore, Karl Jung, who studied Picasso’s “blue period” closely from the psychoanalytical perspective, believed that this particular choice of color was provoked by the archetypal dark blue, the one Egyptians associated with death. Blue as a color code for the spiritual was clearly articulated in the artistic movement *Der Blaue Reiter*. Finally, French fashion designer Jeanne Lanvin (1867-1946) also admitted that the iconic blue of her brand was a mediaeval inspiration which she experienced at a temporary exhibition of Fra Angelico’s masterpieces in Paris.

Today blue is one of the most popular colors. Its presence in both quantity and quality is incomparably bigger to that of other colors in the Occidental world. It is the logo

color of influential international organizations, just as the United Nations, UNESCO, and Council of Europe. The European Union flag was inspired by the Blessing Madonna of Strasbourg cathedral's stained glass, wearing an azure-blue cape and crowned with twelve golden stars, symbolizing abundance and perfection by the color scheme of mediaeval Marian iconography. The choice of colors was meant to contrast with the yellow stars on red background and sickle and hammer, the symbols on the flag of the Soviet Union. Blue in everyday life usually carries the meaning of neutrality and peace: it often signifies what is allowed, open, and accessible, as opposed to the restrictions and prohibitions expressed by red. All of this agrees with the symbolism of blue in the later Middle Ages. Finally, by serendipity, as in the case with Prussian blue almost two centuries earlier, a new pigment for blue was discovered in Oregon State University in 2009 when a chemist, Mas Subramanian, was experimenting with materials suitable for electronics manufacturing and noticed a sample's bright blue color. Based on its main components of yttrium, indium, and magnesium, the new pigment was already baptized YInMn and sent to artists to be tried out.

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