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Spirituality and Abstract Art

by

Hao Zheng

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with the requirements for the

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Abstract

Through a close analysis of abstract art and metaphysics (ontological and psychical), the paper examines how metaphysics might be related to abstract art, as well as the early emergence of abstract art in diverse cultures around the world, and its development from the 19th to the 20th century in the modern art world. The paper conducts an examination of some modern abstract art pioneers, as perceived by general public, such as Wassily Kandinsky and Agnes Pilton, who experimented with the art form in the 19th and 20th centuries, and their intentions based on metaphysics: spirituality and mythology are included in these aspirations. In addition, the paper reviews a number of exhibitions which have arisen around the theme of metaphysical abstraction in recent decades.

Keywords: Abstract, spirituality, metaphysics, art, psychic, perception

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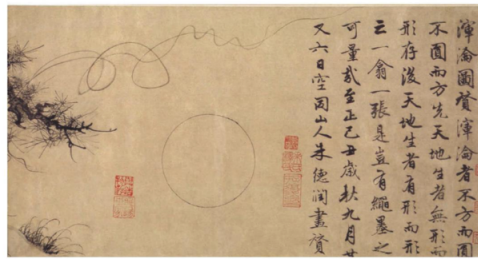


Fig. 1

Source:

https://www.metmuseum.org/art/metpublications/The_World_of_Khubilai_Khan_Chinese_Art_in_the_Yuan_Dynasty



Fig. 2

Source: <https://www.nytimes.com/2020/03/12/arts/design/agnes-pelton-review-whitney-museum.html>

Chapter 1: Introduction to the Concept of Abstraction

It is explored in this chapter what the origins of the word abstraction are, as well as how the term has been used in such fields as Philosophy and Mathematics to grasp the complicated meanings of this term. Additionally, metaphysical abstraction is introduced in order to gain a better understanding of its relationship to art.

Origins

Abstraction was originally used to describe something that had been separated, removed, or pulled away from something else that had been involved in it. In the original Latin version of the word, the Latin verb *abstrahere* was made up of a combination of two elements, namely the prefix *ab-*, which means “away,” and the verb *trahere*, which means “to pull.”

Abstraction in Philosophy

It is commonly recognized in philosophy that “abstraction is a distinctive mental process in which new ideas or conceptions are formed by considering the common features of several objects or ideas and ignoring the irrelevant features that distinguish those objects,”¹ based on a longstanding tradition in the philosophical study of psychology. The understanding of abstraction can be gained by taking into account the contribution of the philosopher Aristotle: “takes substantial forms to be abstract objects. Aristotle uses abstraction to explain how we can come to

¹ “Abstract Objects,” Stanford Encyclopedia of Philosophy, First published Thu Jul 19, 2001, substantive revision Mon Aug 9, 2021, accessed Dec 1, 2022, <https://plato.stanford.edu/entries/abstract-objects/#:~:text=According%20to%20a%20longstanding%20tradition,features%20that%20distinguish%20those%20objects>.

know universals from having sense perceptions...these explanations lie at the very core of Aristotle's thought. Abstraction lies at the very core of these explanations."²

In philosophy, there is much discussion about the nature and the existence of abstract objects, and this discussion is still ongoing today. Abstract object theory refers to a branch of metaphysics which studies abstract objects and is part of the field of metaphysics. The concept was originally developed in 1981 by the metaphysician Edward Zalta on the basis of mathematical platonism, which means "any metaphysical account of mathematics that implies mathematical entities exist, that they are abstract, and that they are independent of all our rational activities. For example, a Platonist might assert that the number pi exists outside of space and time and has the characteristics it does regardless of any mental or physical activities of human beings."³ According to the general definition from *Oxford Bibliographies*,

An abstract object is a non-physical, non-mental object that exists outside of space and time and is wholly unextended. For example, one might think that numbers are abstract objects; e.g., it is plausible to think that if the number 3 exists, then it is not a physical or mental object, and it does not exist in space and time. Likewise, one might think that properties and relations are abstract objects; e.g., it is plausible to think that if redness exists, over and above the various red balls and red houses and so on, then it is an abstract object—i.e., it is non-physical, non-mental, non-spatiotemporal, and so on. Other kinds of objects that are often taken by philosophers to be abstract objects are propositions, sentence types, possible worlds, logical objects, and fictional objects.⁴

It can be said that the term abstract refers to things that are neither concrete nor immaterial. An abstract object, in other words, is a "non-physical, non-mental object that exists outside of space and time and is wholly unextended,"⁵ as it has been described previously. Among the abstract objects that can be thought of are numbers, sets, propositions, and universals; as opposed to

² Allan Bäck, *The Concept of Abstraction*, (Binghamton University, The Open Repository @ Binghamton The ORB, The Society for Ancient Greek Philosophy Newsletter 3-24-2006), page 4.

³ "Mathematical Platonism," Internet Encyclopedia of Philosophy (IEP) (ISSN 2161-0002), <https://iep.utm.edu/mathplat/>.

⁴ Mark Balaguer, "Abstract Objects," *Oxford Bibliographies*, Last reviewed Sep 1 2022, Last modified Jan 15 2019, DOI: 10.1093/OBO/9780195396577-0384, <https://www.oxfordbibliographies.com/display/document/obo-9780195396577/obo-9780195396577-0384.xml>.

⁵ Ibid.

abstract objects, concrete objects, such as pens and trees, are different from abstract objects due to their tangible, physical, and materialized qualities and characteristics. In regard to abstract object theory, it has been pointed out that there is no universally accepted way of distinguishing between abstract and concrete objects in contemporary philosophy, according to the *Stanford Encyclopedia of Philosophy*. Based on the encyclopedia, It is generally held that abstract objects are those which are lacking certain qualities that can be attributed to paradigmatic concrete objects, according to the *way of negation*. Certain paradigm cases can be classified as abstract objects according to a consensus, such as numbers, and other objects of pure mathematics. However, there are also several concepts that do not appear to belong in either abstract or concrete categories, including holes, shadows, ghosts, Cartesian minds, fictional characters, immanent universals, or tropes.

Abstraction in Mathematics

Objects that originated from pure mathematics are often regarded as abstract, since in mathematical platonism, it is thought that mathematical objects are abstract, as mentioned in the previous paragraphs. Moreover, in the study of mathematical platonism *Plato's Forms*, *Mathematics and Astronomy*, professor Theokritos Kouremenos at Aristotle University of Thessaloniki, Greece, details the concepts:

...mathematical objects exist objectively, independently of our thought and neither in space nor in time...As the objects mathematics is really about, forms are best viewed not as universals but as abstract particulars. Geometry does not study a single square: it assumes an indefinitely or infinitely large number of copies of each of its objects...In view of the imagery of the cave simile, these are in each case multiple “shadows” cast by a unique form, which is approached by the mathematicians only via study of its “shadows”...Plato has Socrates locate the difference between mathematics and philosophy in the way each studies forms. Mathematics studies forms indirectly...Ideally, philosophy has no need for crutches and approaches the forms in themselves...

mathematics sees beings not in the state of wakefulness, as philosophy does, but as if in a dream.⁶

Furthermore, according to the *Internet Encyclopedia of Philosophy*, mathematical Platonism “enjoys widespread support and is frequently considered the default metaphysical position with respect to mathematics.”⁷ Thus, pure mathematics objects are generally perceived as abstract.

In addition, it is also possible to use abstraction in mathematics to describe the process of solving a mathematical problem which involves shifting from real-world examples to hypothetical and fictitious explanations by removing any dependence on real-world objects in order to determine the fundamental structure, properties, or patterns of a mathematical concept or object, as according to Moroccan Philosopher Hourya Benis Sinaceur’s “Facets and Levels of Mathematical Abstraction,”

Mathematical abstraction is the process of considering and manipulating operations, rules, methods and concepts divested from their reference to real world phenomena and circumstances, and also deprived from the content connected to particular applications. There is no one single way of performing mathematical abstraction. The term “abstraction” does not name a unique procedure but a general process, which goes many ways that are mostly simultaneous and intertwined.⁸

Also, in computer science, abstraction is similar to the mathematical abstraction in that it involves extracting relevant information from a larger set of data or information, in the same manner as generalization. As a consequence, developers are able to reduce complexity while increasing usability by providing an accessible and simple user interface, which facilitates precise and usable design and systems, and facilitates user interaction:

We’ve really been talking about abstraction all along. Whenever you find yourself performing several similar computations, such as

⁶ Theokritos Kouremenos, *Plato’s Forms, Mathematics and Astronomy*, Publisher: Walter de Gruyter, Publication Date: 2018.

⁷ “Mathematical Platonism,” the Internet Encyclopedia of Philosophy IEP, <https://iep.utm.edu/mathplat/>.

⁸ “Facets and Levels of Mathematical Abstraction,” Standards of Rigor in Mathematical Practice, *Philosophia Scientiae*, 18-1 2014, <https://doi.org/10.4000/philosophiascientiae.914>, <https://journals.openedition.org/philosophiascientiae/>, Abstract.

> (sentence 'she (word 'run 's))
(SHE RUNS)

> (sentence 'she (word 'walk 's))
n(SHE WALKS)

> (sentence 'she (word 'program 's))
(SHE PROGRAMS)
and you capture the similarity in a procedure

(define (third-person verb)
 (sentence 'she (word verb 's)))
you're *abstracting* the pattern of the computation by expressing it in a form that leaves out the particular verb in any one instance.

In the preface we said that our approach to computer science is to teach you to think in larger chunks, so that you can fit larger problems in your mind at once; "abstraction" is the technical name for that chunking process..⁹

Summary

The origin of the word abstract literally means that: something has been separated. In other words, by using the process of abstraction, one is attempting to eliminate some aspects of an entire entity or object, to focus on a few attributes and characteristics of it, and to omit a few details that relate to it. In philosophy, abstract objects are studied such as determining the difference between the concrete and the abstract. It is however very difficult to draw a clear line between the two. Abstract object theory is a branch of philosophy that deals with the problem that has been mentioned above. The abstract theory of philosophy is developed on the basis of mathematical platonism which establishes a common understanding that objects such as numbers in mathematics are purely abstract. Additionally, in a mathematical context, mathematical abstraction is a process of finding the fundamental structure of an object, a process by which one generalizes from the complexities of real-world occurrences to the underlying concepts that

⁹ Brian Harvey and Matthew Wright, *Simply Scheme: Introducing Computer Science*, 2/e Copyright (C) 1999 MIT, Part V.

explain them. Moreover, abstraction in computer science is a similar process by which data can be made easier to display in front-end systems by minimizing the data to make it easier to display.

Definition of Metaphysical Abstraction

It is common for metaphysics to refer to any fundamental principles or rules.

Metaphysics is sometimes used for mysticism, which is the study of phenomena beyond the material world and the supersensual. Additionally, the terms metaphysical and philosophical are sometimes used interchangeably. According to *Polskie Towarzystwo Tomasza z Akwinu* from *Polskie Towarzystwo Tomasza z Akwinu* (The Polish Society of Thomas Aquinas), metaphysical abstractions are objects of philosophical study and serve as a method of analyzing the properties and contradictions of reality:

The purpose of metaphysical abstraction is to form the proper object for philosophical knowledge. This object is form separated from matter as such, and the form indicates that by virtue of which a thing is what it is. Metaphysical abstraction lies at the basis of the distinctness of the philosophical sciences which have the role of “studying the properties of being as being and the contraries of being as being” (Met., 1061 b 4-5). Philosophical (metaphysical) studies differ from other studies in that individual and concrete things are studied “not insofar as each of them has some definite attribute, but [...] in so far as each of them is a being” (ibid., 1061 b 26-29). Aristotle arranges in a hierarchy the methods of abstraction that are the basis for forming the proper objects of the natural, mathematical and philosophical sciences. He constructs the hierarchy with a view to the scope of the knowledge gained in each. He distinguishes metaphysical abstraction and metaphysics as the first science, because the object of philosophy that is formed as a result of metaphysical abstraction is the most universal. It includes within its scope everything that exists. For this reason Aristotle remarks that “knowledge of nature and mathematics should both be regarded merely as a part of wisdom” (ibid., 1061 b 33-34), for these sciences study things either insofar as they are subject to change or under the aspect of quantity and continuity, but they do not study things insofar as they are being. Only first philosophy (metaphysics) is concerned with things “insofar as they are being and nothing else” (ibid., 1061 b 33), and therefore it alone merits the status of the first science... We may search for the foundations of the threefold division of Aristotelian methodic abstraction (physical, mathematical, and metaphysical abstraction)

in the Platonic conception of knowledge as noetic (contemplative), dianoetic (mathematical) and doxal (probable).¹⁰

The study of metaphysics leads to metaphysical abstraction through observation and investigation of individual objects. It has been argued by some scholars that mathematical and metaphysical abstractions are identical in that their concepts must arise from a state of illumination. In addition, some argue that mathematical abstraction is derived from geometry and arithmetic, whereas metaphysical abstraction is often rooted in imagination and is attributed to the humanities and arts. Accordingly, metaphysical abstraction is often used in the arts and humanities to describe the search for fundamental principles or rules that underlie physical reality.

¹⁰ Bożena Czerneck, “abstrakcja,” *Polskie Towarzystwo Tomasza z Akwinu*, Polskie Towarzystwo Tomasza z Akwinu.

Chapter 2: Abstraction and Art

A discussion of the relationship between abstraction and art (via art history) is presented in this chapter in order to gain a deeper understanding of the correlation between abstract art and metaphysics. Presented in this chapter is a survey of ways in which artists work abstractly across a range of different cultures. A closer look at some examples of ancient art, such as Islamic art and Chinese art, will be discussed later on in this chapter. Furthermore, as part of the chapter, a series of pioneers of modern art movements, such as Pablo Picasso, Wassily Kandinsky, Hilma af Klint, and Agnes Pelton will be examined and be used as an overview of the ideas of spirituality and abstraction in art.

Abstraction in Art: a Definition

In art, what does abstraction mean? Having examined the fundamentals of abstraction, as well as the scholars who contributed to its development. It may be possible to describe abstraction in art in these ways: artists have eliminated segments of components, or arranged and “schematized” objects, alluding to the abstraction process. Also, it can imply that artists have created art that is profoundly conceptual, with no visual source in the external world, i.e. abstract objects, and has no intention to suggest, indicate or depict anything from reality. Other definitions might also be present, for example, the distinction between concrete art and abstract art could be quite difficult to draw. In some ways, a number of academics argue that the nature of all art is abstract: art historian and director of Painting and Sculpture at the Museum of Modern Art Andrew Carnduff Ritchie writes in the catalogue of the exhibition named *Abstract Painting and Sculpture in America* (which took place at MoMA in 1951) for which Ritchie chose all of the modern abstract artworks, since a negative connotation is attached to the word abstract:

commonly, it means to remove, to take away. There is a certain degree of abstraction in all art. Ritchie's further description of abstract art-creating process can be found below: "However accurately in detail a painter may attempt to describe a portion of nature, inevitably some minute particle of reality will escape his observation; or he may consciously, or unconsciously, 'abstract' it from his representation in the interests of clarification," Ritchie goes on to note that Sir Joshua Reynolds, the British painter who was the first president of the Royal Academy, had devised the concept of a "science of abstract form" in regard to the abstraction process in the field of art:

That is to say, art. Flemish and German realist painters of the 15th and 16th centuries were artists of this kind. Renaissance Italians practiced another type of abstraction, a synthesis of abstracted forms in order to present an ideal face or landscape which was thought to be superior to any particular face or landscape in nature. This synthetic abstraction was an inheritance, in part, from the Greeks and since the Renaissance has been practiced by all artists trained in the so-called academic tradition. Sir Joshua Reynolds in the tenth of his Discourses went so far as to call this method the "science of abstract form."¹¹

Moreover, some arguments seem specifically related to painting. French artist Bernard Gortais argues in his journal "Abstraction and Art" that painting was always conceived through abstract methods: "the conception of painting has always involved abstract processes: '*la pittura è cosa mentale*'"¹², says artist Leonardo da Vinci, which can be translated from Italian to mean: painting is an extension of the mind. "before being a battle horse, a naked woman or some anecdote or other, a painting is first and foremost a flat surface covered with colours assembled in a certain order"¹³ says French painter Maurice Denis, and follows: "The word 'language' refers to the expressive function of thought and communication between human beings by means of a system

¹¹ Andrew Carnduff Ritchie, "What is Abstract Art," *Abstract Painting and Sculpture in America*, The Museum of Modern Art, 1951, Exhibition URL: www.moma.org/calendar/exhibitions/1989, Page 11.

¹² Bernard Gortais, "Abstraction and Art," *Philosophical Transactions: Biological Sciences* 358, no. 1435 (2003): 1241–49, <http://www.jstor.org/stable/3558216>, Page 1244.

¹³ Ibid.

of vocal signs (words) and possibly graphic signs (writing). The visual arts constitute a language based on forms, formats, colours, constructions, rhythms and lines.”¹⁴

Language, as defined by Gortais is: the means for thought expression and mutual understanding by employing spoken signs referring to words, and to a varying extent by employing visual signs referring to the written words. In similarity, the forms, formats, colors, and constructions that make up the language of painting are in fact a matter of abstract objects, and are not concrete constituents in the real world. Furthermore, former curator of the Getty Museum's Manuscripts Department and art historian Bryan C. Keene discussed the nature of painting by stating on Getty Iris:

Abstraction is not simply the opposite of naturalistic or representational art, however. It can also be an attempt to explain, depict, allegorize, or imagine the intangible with tangible ideas. Moreover, on a material level, the very art of painting—whether in a manuscript or on a modern canvas—can be understood as the act of creating or concealing form through the combination of strokes of paint in varying colors and layers.¹⁵

Overall, there seems to be no absolute demarcation line between the theoretical and the practical. One might even say that the abstract and the concrete can be thought of as two ends of a spectrum instead of two different disciplines. The focus in this essay is mainly going to be on abstract art that is considered more “purely abstract” and its connection with a dimension of spirituality as well.

From Paleolithic Art to Art Abstraction

Art history has always been a place for abstraction in some form or another, and art always involves abstraction in some way. As early as Paleolithic Art, the oldest known

¹⁴ Ibid.

¹⁵ Brian C. Keene, “The Middle Ages and Modern Abstraction,” Getty Iris, May 30 2014, <http://blogs.getty.edu/iris/the-middle-ages-and-modern-abstraction/>.

art-making in human history, had some form of abstraction as a component: “Abstraction is often considered a Modern invention,” says art critic Lance Esplund, “and certainly, abstraction was reborn in the early 20th century—and yet abstract art existed alongside representational art in Paleolithic caves.”¹⁶

Moreover, in many cultures throughout history, as in some ancient art of Sumer and Egypt art, of the Byzantine era in the Middle Ages, or of many other cultures, for example, there has been a sense of metaphor, a sense of abstraction, and a sense of alienation from reality in much of the art. In “Abstract Art Didn’t Begin with Picasso,” Esplund discusses the use of abstraction in some ancient artworks, based on what the art historian Wilhelm Worringer expresses early in the 20th century, in the following manner:

Throughout history, representation and abstraction have generally alternated as modes of artistic expression, based on how a society felt toward the outside world...Although Worringer’s book was the first serious assessment of what would become known as Modern art, it did not address Modern and abstract art per se. Worringer completed the text, as his doctoral dissertation, in 1906 (Picasso invented Cubism around 1907). Worringer was attempting to come to grips with why the artists of some cultures, such as ancient Greece and Rome, and some periods, such as the Renaissance, worked representationally, while others—the artists of ancient Sumer and Egypt, and of the Byzantine era and the Middle Ages, as well as of many primitive cultures—worked abstractly.¹⁷

It is evident that many artists in ancient periods and across different regions worked abstractly in a similar manner before the invention of modern abstract art, as stated by Worringer in his book, *Abstraction and Spirituality*. This paper investigates the shared abstract features and characteristics of these ancient works of art, as well as the reasons for these shared features and similarities. The book *Abstraction and spirituality* by Worringer will be discussed further in following sections.

¹⁶ Lance Esplund, “Abstract Art didn’t begin with Picasso,” Literary Hub, Published Dec 4 2018, <https://lithub.com/abstract-art-didnt-begin-with-picasso/>.

¹⁷ Ibid.

Ancient Sumerian Art

According to the introduction about Sumerian art from the Metropolitan Museum of Art, the invention of writing is one of the most important legacy left by the ancient civilizations of southern Mesopotamia: Around 3200 - 2900 BCE, as the fourth millennium B.C. came to the end, and the third millennium B.C. took place, the region saw the development of written language, first in the form of pictographs and later in the more abstract forms known as cuneiform. Proto-cuneiform refers to the tablet that was drawn in the clay with a pointed implement. Cuneiform tablets were created by Sumerian craft artists clay that had been dried to a firm consistency and fired in order to provide an excellent surface for writing, and held records permanently. Furthermore, the wedgy shapes were created by pressing a reed pen or stylus into a clay tablet. On the surface of cuneiform tablets, in addition to the pictographs, there were also circular impressions that stood for symbols of numbers.

More specifically, according to scholar and professor Joshua J. Mark, since the need for long-distance communication in trade, the first cuneiform tablets, known as proto-cuneiform, were pictorial and the topics they addressed were relatively concrete and visible (a king, a battle, a flood). In addition, there was no need for complex compositions because the information that needed to be conveyed at that time was simple, such as the information of the goods shipped: the price and the seller's name and address. By around 3200 BCE, phonograms (symbols representing sounds) had completely replaced these early pictographs in the city of Uruk. By the time of the Early Dynastic Period (2900-2334 BCE), cuneiform had evolved in complexity as people found more ideas they wanted to express and preserve for the future.

With regard to the development of Cuneiform, it was in the beginning a technique for describing things, items, and objects in a precise format, which is related to the process of abstraction. The system was eventually developed into a language system at a later stage. Scholar Paul Kriwaczek notes in *Babylon : Mesopotamia and the Birth of civilization* that:

All that had been devised thus far was a technique for noting down things, items and objects, not a writing system. A record of 'Two | Sheep | Temple | God | Inanna' tells us nothing about whether the sheep are being delivered to, or received from, the temple, whether they are carcasses, beasts on the hoof, or anything else about them. Yet for administration purposes this was apparently sufficient. Early Mesopotamia supported an oral society, in which memory was highly prized. All that was needed was a simple reminder, something as neutral as a sign of a left-pointing finger, which can be read as 'go left'... To be more precise would demand the use of real language, but for a long time the idea of representing actual speech in the form of marks on clay simply did not occur to anyone.¹⁸

Ancient Egyptian Art

French art historian Souren Melikian writes in “The Roots of Art in Ancient Egypt” an art review of the exhibition *Dawn of Egyptian Art* for the New York Times that ancient Egyptian artists had been exploring radically different avenues than representational art. *Dawn of Egyptian Art* at the Metropolitan Museum of Art in 2012 features ancient Egyptian art and according to Souren, abstract motifs can be seen as core elements of many ancient earthenware potteries from the exhibition. For example, according to Melikian, a stone jar was carved that demonstrates a remarkable skill in simplifying animal forms to the point of abstraction, with a surreal twist that foreshadows avant-garde art of the 20th century:

¹⁸ Paul Kriwaczek, *Babylon : Mesopotamia and the Birth of civilization*, Originally published: London : Atlantic Books, 2010, Page 91-92

A stone jar carved between 3650 and 3300 B.C. displays a stunning aptitude at reducing animal form to near abstraction, with a surreal twist that anticipates 20th-century avant-garde art. With its round eyes and curving tusks, it conjures the image of an elephant. The image conveys a distinct sense of hilarity. This comes out even more definitely in a gray stone palette shaped as an animal. To Ms. Patch, this is a lion. Others might be tempted to see it as a hippopotamus with its massive back and enormous head.¹⁹

Byzantine Art in the Middle Ages

According to Keene's introduction about Byzantine art and the Middle Ages, it has been argued that the 1,000-year Middle Ages came to an end on May 29, 1453, and the beginning of the Middle Ages can be placed, at the time of Constantine, in the fourth century AD, when Christianity became the state religion of the Roman Empire, or at the time of the deposition of the last Roman emperor: in the year 476.

In his opinion, various Byzantine art from that period shares the same features of abstraction. For example,

The image of King David Lifting His Soul to God (below) from one of the choir book volumes has a decidedly abstract quality that, to our eye, looks powerfully modern. the presence of Jackson Pollock's Mural at the Getty—displayed by perfect coincidence adjacent to a drawings exhibition called Hatched! Creating Form with Line—has provoked much discussion with my colleague Megan McNamee in the Manuscripts Department about the notion of abstraction in the Middle Ages. Pollock's seemingly veiled forms and colorful, rhythmic painted lines on a modern canvas, together with the diagonal, overlapping, or contour-hatched lines that artists routinely employed in drawing from the 15th to the 19th centuries calls attention to the idea of how artists create, conceal, or eschew representational form.²⁰

¹⁹ "The Roots of Art in Ancient Egypt," the New York Times, published June 15 2012, <https://www.nytimes.com/2012/06/16/arts/16iht-melikian16.html>.

²⁰ Brian C. Keene, "The Middle Ages and Modern Abstraction," Getty Iris, May 30 2014, <http://blogs.getty.edu/iris/the-middle-ages-and-modern-abstraction/>.

Some examples from the collection of the J. Paul Getty Museum are illustrated by Keene to define abstract in the Middle Ages that some medieval thinkers realized there was a difference between perceived reality and mental images, since one's thoughts, imagination, and visions cannot be made of the same material stuff as the object in the world. The examples include a work that appears to be composed of diagrams for assessing the cosmos, and a work that depicts a character bounding through a swirl of weird creatures.

Ancient Islamic Art

Islamic art, since its inception and having completely abandoned the traditional vacuum drawing and painting style as an artistic expression of the visible abstraction of its apparent physical dress, has taken a means of revealing the interior of that art and its spiritual, intellectual and social messages, This art has been able to create pure and abstract visual vocabulary capable of expressing its speech and message related to its spiritual aesthetic needs and social concerns as a meditative art combining sacred and mundane.²¹

The abstract philosophy is reflected in the art of traditional Islamic art, as stated in “Abstraction Philosophy and Semantics in Islamic Art.” In traditional Islamic art, the emphasis is not placed on depicting stereotyped representative images as much as it is on illustrating lines, patterns, colors, and forms of matter as a means of conveying spirituality, magic, and a sense of *ummah*. In the next section, the abstraction in Islamic art will be investigated from in a thorough manner within the research material.

It has been shown in “Abstraction Philosophy and Semantics in Islamic Art” that there are numerous engineering relationships in Islamic abstraction, which is a source of harmonious visual rhythms on abstract surfaces as well as their components, but also a source of meaning, intellectual connotations, and spiritual significance in these works. The viewer, in addition to

²¹ Mazen Asfour, Jihad Alameri, and Haifaa Ahmad Bani Ismail, “Abstraction Philosophy and Semantics in Islamic Art,” *Advanced Research & Studies Journal* Vol. 11 No. 6 2020, Abstract.

realizing the aesthetics of rhythm and visual harmony, has a direct or direct sense of spirit and intellectual cohesion between members of the ummah, a concept derived from the essence of the Islamic doctrine intended to achieve good and all that is for the nation as a whole. “Abstraction Philosophy and Semantics in Islamic Art” notes that the Muslim artist used the equal height of shapes, lines, and spaces to present this virtue, rather than relying on stereotypical images to portray it, by using an abstraction visual language. The geometrical lines and decorative motifs found in Islamic abstract surfaces add an abstract artistic value to the artwork, as mentioned in “Abstraction Philosophy and Semantics in Islamic Art”:

Since its inception, Islamic art has gained the advantage of making the components of abstract surfaces permanently full of motion and visual dynamism, through the distribution of pure geometric elements derived from plant shapes, inscriptions, star shapes, etc... Thus, these abstract formations require the eye of the viewer to move continuously or move and stop and then the movement to make the eye of the viewer roam in all the lobes of decorative magic (Aldraiseh and Abed Al Hadi, 2009b)... As the movement of open eyesight in all directions suggests the transitions of the material of energy, speed and light radiation confirms the concept of the unsteadiness and eternity... the Muslim artist has expressed all this through the formation of an abstract visual.²²

By using their own philosophical approach to artistic abstraction, full of connotations, derived from their faith and understanding of the deepest of religion, the Muslim artists were able to express his spiritual, intellectual and aesthetic ends, as a result of their own artistic abstraction philosophy:

The Muslim artist embodied the above values and meanings with pure abstraction visions and formulation... but a creative, spiritual and scientific transcendence, through which the Muslim artist wanted to discover the aesthetic and new means of artistic expression of this art consistent with... but is an art that interacts with the activity of the human thought moving and interacts with the spiritual and philosophical concepts upon which religion is based... but came from the spiritual, scientific, philosophical and intellectual richness.²³

²² Ibid., Page 188.

²³ Ibid., Page 187.

Moreover, in regard to qualities of geometry in mathematics and engineering, the article mentions,

Islamic art, with all its abstraction and architectural forms, was based on meditation and mathematical and engineering thinking as the main tools for shaping its artistic language and its hidden meanings, considering that the components of the universe, nature and things according to the Islamic concept as inspired by the verse 15 of Surat Al-Hajar: It is only a scientific and mathematical calculation that does not know randomness and chaos. It is a well-structured system and very calculated engineering relations (Ali, 2013). Thus, the scientific and mathematical concept was reflected in all the scientific, physical and artistic works of Muslims, including the art of Islamic abstraction, which abounds in these engineering relations, whose role is not only to generate harmonious visual rhythms in the abstract surface and its components, but in addition to the generation of meanings and intellectual connotations and spiritual. Beyond the engineering components behind that abstract surface, we review at the end of the study two prominent models, including: The Interconnected Engineering Networks to Express the Nation's Solidarity and Cohesion.²⁴

In other words, Islam considers spirituality to be a huge idea in the context of religion and sense of Ummah. A further element that is included in the art is movement, which is often compared with rhythm and hymns in music, thus evoking in the viewer a feeling of harmony and meditation. A concept of open text and visual multiplicity is explored along with the meanings inherent in geometric values in the art.

Ancient Chinese Art

Historically, abstract art in China can be traced back to ancient dynasties. For example, *Cosmic Circle* (Fig. 1), a painting by Zhu Derun dated 1349, is an abstract Chinese painting that reflects Daoist metaphysics, which views chaos and reality as natural processes in cosmos. On the left is a pine tree in rocky soil. Its branches are intertwined with vines that reach chaotically to the right. A perfect circle floats between the pine tree and Zhu's inscription, which is obviously drawn with a compass, based on *The World of Khubilai Khan: Chinese Art in the Yuan Dynasty*. On the right side of the circle, Zhu's inscription reads as follows: "Primordial chaos

²⁴ Ibid., Page 198.

[bunlun] is not square but round, not round but square. Before the appearance of heaven and earth there were no forms; yet forms existed. After the appearance of heaven and earth, Forms existed but became undefined, their constant expansion and contraction, unfurling and furling, making them beyond measure.”²⁵ (a translation after the art historian James Cahill in Yang Xin, et al.). In addition, Zhu's signature “Merged with the Void Mountain Man”²⁶ corresponds to the image, and expresses Zhu's idea of nature and emptiness.

The perfect circle represents Hunlun 混沌 (or primordial chaos), as notes by Cahill in the *Three Thousand Years of Chinese Painting*. Hunlun is described as the primordial entity as well as the tremendous undifferentiated mass from which the cosmos was developed, and Zhu's inscription, which can be interpreted as Daoist cosmology, demonstrates the work's intellectual significance.

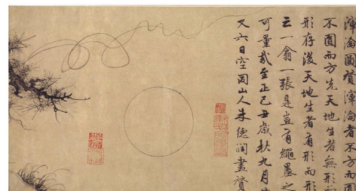


Fig. 1: *Cosmic Circle*

Interestingly, Zhu uses symbolic circles as a means of conveying a message whose roots seem to be derived from Daoism. Cahill explains in the chapter of “the Yuan Dynasty (1271 - 1368)” that Hunlun is neither square nor round, but both, since forms existed and did not exist before the earth was formed, and it is unable to be measured due to its continuous expansion and contraction, and unfurling and furling.

²⁵James C. Y. Watt, with Maxwell K. Hearn, Denise Patry Leidy, Zhixin Jason Sun, John Guy, Joyce Denney, Birgitta Augustin, and Nancy S. Steinhardt, *The World of Khubilai Khan: Chinese Art in the Yuan Dynasty*, Metropolitan Museum of Art, 2010, Page 224.

²⁶ Ibid., Page 225.

It is not just the circle that is symbolic, but also the objects in the painting that are symbolic and convey Zhu's idea about nature being transformed by the power of cosmos. Based on Cahill's description, the items in the painting could be interpreted as metaphors for various states of transformation, phases of development and decay: The soil and rock symbolize the extremely slow transformation of things; the pine tree symbolizes the moderately fast transformation; and the vine, depicted wind-blown and unfulfilling, represents the extremely rapid transformation.

It is interesting to note that this piece appears to be both a unique pictorial representation and an analytical diagram about the cosmos, according to Cahill: in the painting, a huge circle that could be interpreted as Hunlun's symbol can be seen to be extremely abstract on the right side of the painting, and it appears that the artist has abandoned strict realism for something more abstract and symbolic with the vines' contorted depiction. Likewise, with similar brushstrokes, Zhu's depiction of the bank, rock, pine, and grasses also shows his love of abstract style, as they appear to be depicted in a swift and loose manner by his brush, and it seems that the artist did not pay particular attention to depicting their realistic features.

Another Chinese artist and Buddhist monk, Bada Shanren, employed a relatively abstract style during the Ming dynasty. In fact, one might even say that his use of abstraction was unprecedented in China at the time, during the period of the Ming dynasty. The Asian Art Newspaper describes his abstract ink style as follows: "calligraphy and painting have the same origins' that he had subscribed to throughout, to fruition. By combining abstract, calligraphic brushwork and ambiguous spatial relationships in *Four Landscapes from a Combined Album of Painting and Calligraphy* (circa 1693-96), he achieved free self-expression."²⁷ And the

²⁷ "Bada Shanren (1626-1705): Art and Life," Asian Art Newspaper, June 6 2016, <https://asianartnewspaper.com/enigmas-the-art-of-bada-shanren/>.

Metropolitan Museum art explains his abstract technique in *Birds in a lotus pond*: “The scroll opens with the daringly abstract form of a torn lotus leaf that is precariously suspended from its bent stalk, which extends leftward above a cluster of half-hidden blossoms.”²⁸ Interestingly, Asian fine-art specialist Elisabeth Hammer at Christie’s compared Bada’s art to modern abstract art, saying that: abstract art has become so commonplace in recent decades that we no longer raise eyebrows when people see something that seems illogical. However, back in the early 1700s, this would have been quite a shock. Bada was undeniably ahead of his time, despite the fact that abstraction was used in Chinese painting before it was used in European art.

There are diagrams in ancient Chinese art that convey information, data, and algorithms that have symbolic meanings associated with them. Surely it has a quality of mathematical abstraction in my opinion, and it bridges the gap that is often found between science and art. In *Francis Bacon: the Logic of Sensation*, “[T]he diagram is thus the operative set of asignifying and nonrepresentative lines and zones, line-strokes and colour-patches. And the operation of the diagram, its function, says Bacon, is to be ‘suggestive’”²⁹, philosopher Gilles Deleuze details,

it is as if a Sahara, a zone of the Sahara, were suddenly inserted into the head; it is as if a piece of rhinoceros skin, viewed under a microscope, were stretched over it; it is as if the two halves of the head were split open by an ocean; it is as if the unit of measure were changed, and micrometric, or even cosmic, units were substituted for the figurative unit.³ A Sahara, a rhinoceros skin: such is the suddenly outstretched diagram...It is like the emergence of another world. For these marks, these traits, are irrational, involuntary, accidental, free, random. They are nonrepresentative, nonillustrative, nonnarrative. They are no longer either significant or signifiers: they are asignifying traits.³⁰

As an example of diagram art, there is an ancient Chinese diagram known as the Luoshu Square (Chinese Magic Square). Its usage in Chinese paintings provides a window into Chinese

²⁸ “Birds in a lotus pond,” the Met, <https://www.metmuseum.org/art/collection/search/49143>.

²⁹ Gilles Deleuze, *Francis Bacon: the Logic of Sensation*, Page 101.

³⁰ Ibid. Page 100.

geomancy and philosophy. “Luo Shu: Ancient Chinese Magic Square on Linear Algebra,” abstract, describes the Luoshu as follows:

Luo Shu [洛書], associated with the eight trigrams [八卦], being an ancient Chinese magic square, forms the foundation of the Compass School. The original Luo Shu, a 3×3 magic square, was not unique in ancient China but the extension of it to a total of 18 to 36 standard charts was unique, which are still used by all Compass School Feng Shui masters. In this article, modern linear algebra, developed only in the mid-19th century, is employed to prove that there is a strong coherence between the 36 charts if they are treated as 36 matrices and such correspondences conscientiously agree with ancient theories of Feng Shui. This article may help to form a scientific base for the systematic understanding, development, and further research of Luo Shu-related applications.³¹

In the following examples of dishes with Luoshu Square, Luoshu Square is illustrated as a metaphysical abstraction. The plate *A Chinese “magic Square” Saucer Dish*, which was auctioned at Christie’s in 2010, features red curvy patterns and lines with black inscription, and the plate *Qianlong Period Talismanic Antique Porcelain Plate*, which is displayed at Mayfair Gallery, features cobalt blue dot patterns, alternating red and white lines, and gilded inscriptions on the sides. They were made for exportation to Islamic marketplaces during the Qianlong era.

In Daoism, when placed in a Chinese context, the metaphysical abstraction could be referred to “Dao (Tao/道)”. A Chinese phrase, “Dao,” can refer to a way, route, or principle. It describes how things work in the universe naturally. It is a basic notion in Daoist philosophy, an ancient Chinese tradition that has had a considerable influence on Chinese culture and intellect. The art from metaphysical Daoism often involves investigation of body, physical, and universe and shows the ideas. Based on the Art Institute of Chicago archives, Tao transcends words and opposites. It’s commonly explained using paradoxical language:

The Way is like an empty vessel
That yet may be drawn from
Without ever needing to be filled.
It is bottomless; the very progenitor of all things in the world.

³¹ Albert Ting Pat So, et al., “Luo Shu: Ancient Chinese Magic Square on Linear Algebra,” Sage Journals, <https://journals.sagepub.com/doi/full/10.1177/2158244015585828>, Abstract.

(Chapter four of the Daode jing; translation by Arthur Waley)³²

Accordingly, early literature like *the Classic of the Way and Its Power* (Daode jing) eventually grew into China's principal indigenous religion. The ancient Daoism paintings from Song and Qin dynasties illustrate a series of transitions and transcendences in cosmology and view of the body. In the metaphysical paintings, ideas such as inner and outer, virtual and real, existence and nonexistence, as well as the object and self are explored. As an example of diagram art, a painting *Neijin Tu*, according to the Art Institute of Chicago archives, is one of a rubbing of a wood tablet formerly kept in the White Cloud Monastery, Beijing, and dated to 1886. It shows the internal torso of the human body as it is visualized during the practice of Inner Alchemy. Although the head is dominated by a chain of mountains representing yang energy, a stream flows through the mountains, suggesting yin within yang. The monk with raised arms and the old man sitting in the skull also represent yin and yang. The image shows the macro-microcosmic and metaphysical significance of the diagram.

Ancient Himalayan Art

In Himalayan Art, diagrams, such as Mandala, are used to depict propositions that are both aesthetically pleasing and spiritually meaningful. According to the Brown University Library's introduction about the art, Himalayan art, especially Tibetan art goes beyond illustration, creating figures and giving form to beings with no intrinsic form or tangible reality, as Buddhists teach, in order to represent abstract ideas or spiritual attainments, or conditions such as compassion or wisdom, without the presence of inherent, intrinsic form.

Tibetan art, uniquely, is an art that is fundamentally abstract, and partially uses figuration and representational images to embody abstraction, according to the Brown University Library.

³² "Introduction to the Exhibition," The Art Institute of Chicago, <https://archive.artic.edu/taoism/introduction.php>.

Unlike contemporary Western artists who use visual abstract elements of shape and color in an essentially personal code to communicate their concept or feeling about life, reality, or the divine, Buddhist artists do not express their feelings or views directly. Instead, they employ a code of standardized symbols that is legible to the local people and to which the people adhere to convey the common understanding. Tibetan art is not concerned with reproduction of the everyday world, but rather with the paradox of depicting that which is not seen. In summary, As fundamentally abstract or conceptual, Tibetan painting is meant to be used to achieve spiritual transformation.

Based on the research of the Brown University Library, the diagram mandala is conceptual art and a visualization of the nature of cosmic reality, as such sometimes called a cosmic diagram, and a means to spiritual transformation. In its simplest form, a mandala is a spherical circle. The circle is an ancient symbol of absolute completeness: in Vedic times, it represented the disk of the sun, to Hindus, it is a chakra or energy center, and to Buddhists, it signifies the wheel of life and the law: the symbol of the Buddha Shakyamuni teaching. The diagonal lines through it have been interpreted to symbolize the axis mundi (or Sumeru): the cosmic mountain at the center of the universe, and the human spinal column, the microcosm assimilated to the macrocosm.

Furthermore, in terms of Mandala diagrams' harmonic proposition, they serve as a means of achieving spiritual transformation, and they are also used as a teaching and a representation of non-duality and unity, thus order and harmony are intrinsic to its design. Mandala is considered a visual emblem of such harmony by the Buddhism practitioners, since harmony, order and serenity are the main qualities.

Abstract Art Movements of the Modern Era

A number of historical movements have been connected with modern abstraction, including Fauvism, Cubism, Digital Art, Hard-edged Painting, Geometric Abstraction, Minimalism, Abstract Expressionism, Color Field Painting, Bauhaus, and Neo-Dada. Due to the surge of independence provided to artists in the nineteenth century, avant-garde artists began to pursue abstraction instead of realism. The transition influenced and contributed to the creation of abstract painting. Thus, abstract art progressed drastically throughout the 20th century, giving rise to the movements mentioned above.

Modern Abstract Artists and Their Abstract Creation Myths

Pablo Picasso

There has always been an argument of what is art abstraction. Pablo Picasso, who was considered the pioneer in modern abstract art movement Cubism in the art world, was famously skeptical of abstract art: “There is no abstract art. You must always start with something.

Afterward you can remove all traces of reality.”³³ Moreover, according to an article from Artsy,

In a 1928 interview, Picasso declared: “I have a horror of so-called abstract painting... When one sticks colors next to each other and traces lines in space that don’t correspond to anything, the result is decoration.” The floodgates had opened; in 1935, the painter opined: “There is no abstract art. You must always start with something. Afterwards you can remove all trace of reality. There’s no danger then... because the idea of the object left an indelible mark.”³⁴

and Yve-Alain Bois, a professor of art history at the Institute for Advanced Study in Princeton, New Jersey:

Pablo Picasso did not speak often about abstraction, but when he did, it was either to dismiss it as complacent decoration or to declare its very notion an oxymoron. The root

³³ Lan Monroe, “The Trouble with Shapes,” *Juan Bolivar*, High Voltage (2017), Quote from Pablo Picasso, Page 9.

³⁴ Abigail Cain, “When Picasso Almost Invented Abstract Painting,” Artsy, Published Oct 27, 2017, <https://www.artsy.net/article/artsy-editorial-picasso-invented-abstract-painting>.

of this hostility is to be found in the impasse that the artist reached in the summer 1910, when abstraction suddenly appeared as the logical development of his previous work, a possibility at which he recoiled in horror. But though he swore to never go again near abstraction, he could not prevent himself from testing his resolve from time to time.³⁵

Pablo Picasso believes that the particular category of pure abstract art is actually non-existent. Therefore, the fact that his work had been labeled as such was a source of horror for him. The following is a description of Picasso's creation myth as it is expressed in the book "Picasso and Appropriation," a book that examines the origins, development, and application of Picasso's appropriation methods: "Picasso subsequently assimilated this idea of appropriation into his art to give form to his fears, to exorcise them, and to regain control over what he termed the 'unknown hostile forces' of nature and man."³⁶ In other words, the act of appropriation was an essential component of Picasso's standard procedure for producing works of art, as indicated by Timothy Anglin Burgard: Picasso holds a strong belief that art is, as he describes it, "a form of magic," a strong personal identification with both the primordial artist and God the Creator, and the belief that the appropriation of works by other artists would result in a magic transfer of artistic power. As Burgard explains in more detail in his book, Picasso seems to have adopted appropriation in response to a number of key events that occurred in his life: when his artist-father decided to give up painting and hand over his brushes and palette to his son; after the death of his sister Conchita in 1895; after the suicide of his friend Carles Casagemas in 1901; and finally, when Picasso visited the Musée d'Ethnographie du Trocadéro in Paris in 1907:

When I went to the Trocadéro...I understood it was really important: surely something was happening to me... I understood why I was a painter. All alone in this dreadful museum, with masks, redskin dolls, dusty manikins. "Les Demoiselles d'Avignon" may well have happened that day, but not at all due to the forms...I wanted to get out fast, but

³⁵ Yve-Alain Bois, "Picasso and Abstraction," IAS, Published 2016, <https://www.ias.edu/ideas/2016/bois-picasso>.

³⁶ Timothy Anglin Burgard. "Picasso and Appropriation." *The Art Bulletin* 73, no. 3 (1991): 479–94. <https://doi.org/10.2307/3045817>, Abstract.

I stayed and studied. Men had made those masks and other objects for a sacred purpose, a magic purpose.³⁷

As a matter of fact, Picasso has faced numerous criticisms for appropriating non-western art, but it is important to point out that Picasso certainly felt “bewitched” by the African art as he described to Andre Malraux when he wandered into the Musée d’Ethnographie du Trocadéro in Paris in June 1907. It was as if he felt a magic power that was beyond the realms of reality when he was watching the African art. According to French journalist Judith Benhamou-Huet’s exhibition review of *Picasso Primitif*, which was curated by Yves Le Fur, the director of Department of Heritage and Collections at Musée du quai Branly - Jacques Chirac, there was a magical relationship he had with these non-western art pieces. Picasso’s daughter even suggests the artist was scared of the Tiki. Françoise Gilot, who was Pablo’s partner in the 1940s and 1950s, employs the same word used by Picasso who discovered the true significance of art as his primitive predecessors: “a form of magic that stands between the hostile universe and ourselves. The day I understood that, I knew that I had found my path.”³⁸ Further, on the exhibition leaflet for *Picasso Primitif*, the focus of the exhibition is explained as follows: “The Ids” in the second part of the exhibition, “Face to Face,” which is organized through a thematic approach to show the relationship between Picasso's work and that of other non-Western artists, in relation to the id in Freudian terms:

The numerous variations of the figure include disfigurement, destruction, many mask-like forms, and hybrid and ambivalent figures. By dislocating the figure, the inner character itself of the person is reached, enhancing the dramatic plasticity...that is taken to the extreme in some of the figures in non-Western arts. Picasso twists and kneads faces and bodies as if they were magic entities permeated with forces and impulses with which he forms a profound connection. These impulses of life and death are at the origin of the id,

³⁷ James D. Balestrieri, “Through the eyes of Picasso,” *Antiques and the Arts Weekly*, Published Feb 20, 2018, <https://www.antiquesandthearts.com/through-the-eyes-of-picasso/>.

³⁸ Judith Benhamou-Huet, “Pablo Picasso: an exhibition reveals his bewitching primitive statues,” *Judith Benhamou Reports*, <https://judithbenhamouhuet.com/pablo-picasso-an-exhibition-reveals-his-bewitching-primitive-statues/>.

taken in the Freudian sense of the psychic energy that circulates unconsciously, and which the artistic process brings to the surface...by means of rituals and exorcism.³⁹

According to Murrell, Matisse and Picasso played pivotal roles in popularizing African-influenced modernism among American avant-gardists. After moving to Paris in 1905, American artist Max Weber studied under Matisse. Weber visited Picasso in his studio in 1908, and he may have seen Picasso's extensive collection of African art at one of the Sunday evening salons hosted by Gertrude Stein and her brother Leo. In his letters to photographer Alfred Stieglitz after his return to the United States, Max Weber discussed the African influences he had seen in the work of Picasso and other Paris-based modernists. Weber's own paintings featured mask forms rendered in an increasingly abstract style. Stieglitz later organized the first American exhibition of Picasso's work, which was held at his 291 Fifth Avenue gallery; he also collaborated with Mexican artist Marius de Zayas to stage an exhibition of African sculpture in 1914, making it one of the earliest such exhibitions in the United States. Picasso's paintings and African sculptures were first shown together in a 1923 exhibit at the Whitney Studio Club, the forerunner of the Whitney Museum in New York.

In summary, Picasso was known for being a pioneer of Cubism art and was given credit for inspiring other modern abstract artists, yet he was known for being skeptical of the category of abstract art or of how abstract art can be classified. According to him, abstraction is the act of deconstruction and the act of expressing something that is beyond the realm of reality. As a modern abstract artist, he was noted for his appropriation of non-western art and this is related to his belief that the transfer of magic power and psychical connection is what helped him to create abstract art in the first place.

³⁹ "Picasso Primitif - Exhibition Leaflet," Musée du quai Branly - Jacques Chirac, <https://www.quaibranly.fr/en/exhibitions-and-events/at-the-museum/exhibitions/event-details/e/picasso-primitif-36915/>.

Wassily Kandinsky

Many scholars consider the Russian painter and art theorist Wassily Kandinsky as the founder of abstract art. Kandinsky was born in Moscow in 1866 and studied painting in Munich in 1896. He then ultimately became a professor at the Academy of Fine Arts.

Kandinsky's work was profoundly affected by his interest in spirituality and features strong, abstract shapes and vivid colors. According to "Early Abstract Art as the Visual Embodiment of an Idea," Kandinsky was the first to fully embrace the idea of pure abstraction. In 1912, Kandinsky published his seminal book, *Concerning The Spiritual In Art*, which laid out the philosophy guiding his search for a purely abstract art.

Kandinsky believed that previous generations had mostly focused on communicating with themselves and expressing the personality of their time. Abstract artists should seek to express the essential similarities each human being has to all other human beings. He called these similarities humanity's "inner sympathy of meaning." The source of this meaning was the human soul, or the "Inner Need," based on "Early Abstract Art as the Visual Embodiment of an Idea." He felt the inner need could be expressed through pure artistry. Moreover, according to Kandinsky, art is "one of the mightiest elements" of the "spiritual life," as he believed in the "prophetic power" of art. He thought that art in itself contains an element of spiritual insight. Therefore, what is represented must be coming from within the artist, and the practice of painting such as "a crucifixion by a painter who does not believe in Christ" needs to be abandoned. The measure and the principle manifesting "the spiritual in art" for Kandinsky is the "principle of internal necessity." He states that the basis of any painting is the internal, whereby the internal also refers to color handling and artistic composition.

In regard to music, Kandinsky believed music was the art form most adept at communicating “emotions beyond the reach of words.” He called paintings compositions, and recommended artists carefully construct their compositions through reasoned choices. He simultaneously called on artists to leave room in their compositions for improvisation, which he called the “spontaneous expression of inner character.” According to Kandinsky’s book *Concerning the Spiritual in Art*,

A painter, who finds no satisfaction in mere representation, however artistic, in his longing to express his inner life, cannot but envy the ease with which music, the most non-material of the arts today, achieves this end. He naturally seeks to apply the methods of music to his own art. And from this results that modern desire for rhythm in painting, for mathematical, abstract construction, for repeated notes of colour, for setting colour in motion.⁴⁰

In other words, Kandinsky argues that modern people want paintings to have rhythm, to be built in a mathematical, abstract way, to use the same colors over and over, and to make colors move.

Kandinsky considered geometric forms so important for the expression of “internal necessity” that he referred to them as “beings”. He wrote: “The form, even when it is fully abstract and geometrical, has its own internal sound, and is a spiritual being whose features are identical to the form...Harmony of the form can only be based upon the principle of purposefully touching the human soul.”⁴¹

According to research, Kandinsky reduced colors to the basic palette; they are “material states of the soul”, so he believes in the “spiritual action of colors”, whereby green represents balance, yellow is “typically terrestrial”, and blue “typically heavenly” The choice of properties added to colors indicates the connection of color with natural phenomena, which means that Kandinsky believed in the existence of universal manifestations.

⁴⁰ Wassily Kandinsky, *Über das Geistige in der Kunst (Concerning the Spiritual in Art)*, 1912.

⁴¹ Ibid., Page 46.

Wassily Kandinsky is universally hailed as the forefather of abstraction. Many specialists in the field have analyzed his development from *Improvisation XIV* (1910) to *Composition V* (1911). For the latter, Kandinsky coined the term “absolute art,” and it was featured in the inaugural Blaue Reiter exhibition that same year.

Once he published *Concerning the Spiritual in Art* in 1912, Kandinsky essentially anointed himself as the apostle of abstract art. Using the idea of psychic effects and the spiritual vibrations emitted by the canvas, Kandinsky rethought the entire basis for and interaction with the work of art for the human subject. He thought artists could serve as spiritual leaders if they created art with intention rather than simply being inspired by it.

Hilma af Klint

In the field of modern abstract painting, Hilma af Klint was one of the early avant-garde artists. She was born in 1862 and passed away in 1944. Af Klint was a member of the Royal Academy of Fine Arts in Stockholm. In her early 20th-century abstract paintings and sketches, she often expressed her belief that art can and should be used for enlightenment and self-discovery.

As a member of the spiritualist group The Five (a group of Swedish spiritualists, and the technique was developed by them to engage in automatic drawing via psychic transmission. Thus, organic and botanical forms are prominent in af Klint's early works), she painted abstract works influenced by her spiritual beliefs, and the abstract, multicolored geometric shapes in her paintings often represent spiritual quest, according to writer Cindi Di Marzo in “With Great Force, Swiftly and Surely.”

The paintings of Af Klint were not well known during her lifetime, but have become increasingly popular in recent decades and are now considered significant in the development of modern abstract art.

The topic of spirituality and abstract art surged in the recent decades as women artists such as Hilma af Klint were recognized now as pioneers of modern abstract art through exhibitions, such as a *Hilma af Klint: Paintings for the Future at the Guggenheim Museum* in 2018. However, her strong belief in spirituality as a way of making art led art critics such as Kramer to question whether her art could be considered early avant-garde in the modern art movement since it is all about her faith. Additionally, her abstract style made her relatively unknown during her lifetime. Moreover, af Klint, and many of the early modernists, such as Mondrian and Kandinsky, shared the theosophy that these artists practiced. Later in the chapter, the subject will be discussed.

Agnes Pelton

Agnes Pelton (1881-1961) was an American painter best known for her vibrant abstract floral still life paintings and landscapes. After a childhood spent in New York City, where she would later study art and launch her career, her family relocated to Germany. Pelton returned to the United States and eventually settled in California, where she became active in the Los Angeles Modern Art Society and the California Arts Club in the early twentieth century.

Inspired by the European Impressionists and the American Tonalists, whose work emphasized muted colors and subtle tonal shifts, Pelton created a unique style all his own. She developed a signature and emotionally charged style by fusing together representational details with abstract forms and bold color (Fig. 2).



Fig. 2: *Orbits*, 1934

Based on “Agnes Pelton: Desert Transcendentalist,” Pelton studied Theosophy, and influenced by both Theosophy and Kandinsky: after reading *Concerning the Spiritual in Art* by Kandinsky, Pelton came to embrace abstraction as a means of expressing his inner, spiritual life. Moreover, Agnes Pelton attained in her dreams and meditations inspired her to use abstract forms and shimmering veils of color to depict these experiences.

In general, Pelton was recognized for her role in fostering the development of modern art in the United States, and her works were featured in museums and galleries across the country. Her paintings are in prestigious collections and continue to receive praise for their aesthetic value and innovative spirit.

Modern Art Abstraction, Ancient Art, and Spirituality

“Abstract art is often seen as carrying a moral dimension, in that it can be seen to stand for virtues such as order, purity, simplicity and spirituality.”⁴² lecturer Adam J Sacks writes in “The Spiritual Origins of Early 20th Century Abstract Art” that abstract art in the early 20th century had spiritual roots. This style of art represents a radical departure from the earlier modernist innovations of Impressionism and Expressionism, to an extent not fully realized by informed observers. Moreover, according to “Spiritual Abstraction,” (a lecture given by Michael Zakian, director of the Frederick R. Weisman Museum of Art at Pepperdine University's Malibu

⁴² “Abstract Art,” Tate, <https://www.tate.org.uk/art/art-terms/abstract-art>.

campus) Zakian spoke to students about the spiritual roots of abstract art: he explained in his talk that the pioneers of abstract art were religiously motivated creators who felt a calling to share their message with the world. Abstract art pioneers at that time considered the art made by the realists of the 19th century are too concerned with the material world, thus they sought to create a new school of painting that is more focused on the spiritual dimension. The chapter aims to broadly investigate the emergence of modern art in the late nineteenth and early twentieth centuries, and in particular its inspiration from both abstract ancient art and spirituality.

Abstract and Empathy by Wilhelm Worringer

Wilhelm Worringer was a German art historian and cultural theorist. His seminal 1908 book *Abstraction and Empathy* was considered influential in the development of modernist art and architecture. He helped bridge the gap between the traditional and avant-garde in the early 20th century given that the book was finished one year prior to Picasso's creation of *Les Femmes d'Alger (O.J.)*, a work with which *Abstraction and Empathy* shares similar interests regarding non-western art abstraction.

In *Abstraction and Empathy*, Worringer states

The psychic presuppositions for the urge, which stands at the beginning of every art, to abstraction within the evolution of art: We must seek them in these peoples' feeling about the world, in their psychic attitude toward the cosmos. Whereas the precondition for the urge to empathy is a happy pantheistic relationship of confidence between man and the phenomena of the external world, the urge to abstraction is the outcome of a great inner unrest inspired in man by the phenomena of the outside world; in a religious respect it corresponds to a strongly transcendental tinge to all notions. We might describe this state as an immense spiritual dread of space... Tormented by the entangled inter-relationship and flux of the phenomena of the outer world, such peoples were dominated by an immense need for tranquillity. The happiness they sought from art did not consist in the possibility of projecting themselves into the things of the outer world, of enjoying themselves in them, out in the possibility of taking the individual thing of the external world out of its arbitrariness and seeming fortuitousness, of eternalising it by approximation to abstract forms and, in this manner, of finding a point of tranquillity and

a refuge from appearances. Their most powerful urge was, so to speak, to wrest the object of the external world out of its natural context, out of the unending flux of being, to purify it of all its dependence upon life, i.e. of everything about it that was arbitrary, to render it necessary and irrefragable, to approximate it to its absolute value. Where they were successful in this, they experienced that happiness and satisfaction which the beauty of organic-vital form affords us; indeed, they knew no other beauty, and therefore we may term it their beauty.⁴³

As art critic Lance Esplund summarizes Worringer's reference to empathy and abstraction:

people tend to want to idealize and recreate their appearance and three-dimensional space in artworks when they are at ease with their surroundings, as people were in ancient Greece, Rome, and the Renaissance. People tended to create things that objectify joy in themselves. In contrast, as in ancient Egypt, the European Middle Ages, and the Modernist era, when people experience discomfort, uncertainty, and anxiety in the world, they tend to abstract from it by producing works of art that honor their inner unrest while repressing the appearance and space of their surroundings. These eras result in a feeling of alienation that they could call "an immense spiritual dread of space."

Using a new approach, Worringer connected the dots between the abstract art before the nineteenth- and twentieth-century, and modern art abstraction. The concept immediately captured the attention of many readers, and the book sparked a lively debate among rebel abstract artists whose work focuses on modernism shortly after its publication. Art critic Hilton Kramer claimed that Worringer was completely unaware of the modern abstract art movement at the time it was occurring, but I think Worringer's concept of art and spirituality was really refreshing at that time, questioning the prejudice against "primitive art." As an example, Wassinger challenges the antiquated claim from Austrian art historian Alois Riegl in *Stilfragen* that geometric style is the best form of art, but that it occupies the lowest place on the scale of values. Overall, it can be

⁴³ Wilhelm Worringer, *Abstraction and Empathy*, 1907.

said that there are a number of ways in which Worringer inspires people to think about the notion of abstraction throughout history and in various cultural traditions.

Spirit of African Art

It would appear that Worringer's interest in the spirituality and abstraction of ancient non-western art was shared by a number of modern abstract art pioneers during the early 20th century. According to curator Denise Murrell, a sculpted head from a Fang reliquary ensemble and a reliquary by a Mbete artist demonstrate how modernist artists were drawn to African sculpture for its sophisticated approach to the abstraction of the human figure: The Mbete style reliquary sculpture was once owned by the renowned Paris dealer Charles Ratton and then by Pierre Matisse, son of the artist, and the Fang sculpture was part of the collection of London-based sculptor Jacob Epstein, who had Vorticist associations and was a longtime friend of Picasso and Matisse.

In African art, abstraction conveys the spirit of the ancestor and the sacredness. Based on Murrell's description, there was already a centuries-old tradition of abstraction in African art, and the Fang sculpture is a great example of this: the sculptural element, which was mounted to the top of a bark vessel containing the remains of the most significant members of the extended family, can be seen as the embodiment of the ancestor's spirit. Since this is not a realistic depiction, the art style is abstract. In addition, The abstract form of the Mbete style reliquary sculpture is more than just a pretty face; it actively helps the piece perform its intended function. The figure's torso is hollow and prolonged since it was aimed to serve as a container for sacred artifacts from the past.

Murrell states that African aesthetics were often imitated and appropriated by modernist artists, and many modern abstract artists' depiction of mask-like face with exaggerated features and lack of expression are prime examples: before leaving for North Africa in the spring of 1906, it's likely that Matisse saw some African sculptures at the Trocadéro with fellow Fauve painter Maurice de Vlaminck. Matisse returned from his trip that summer and painted two versions of *The Young Sailor*. In comparison, the second one features a more stylized and abstracted motif with a face similar to a mask, and the first one is more naturalistic in appearance.

At the same time, Picasso finished his portrait of American novelist Gertrude Stein, painting her face after many re-paintings in a rigid, mask-like style which simulates an ancient sculpture. In regard to the ancient sculpture, according to Murrell, when visiting Alice B. Toklas in the fall of 1906, Matisse stopped at a gift shop and bought a small African sculpture, which has been identified as a Vili figure from the Democratic Republic of the Congo, and Matisse had shown the sculpture to Picasso because the artist was there at the time. Moreover, Picasso made important visits to the African collections at the Trocadéro beginning in June 1907. He claimed that the African sculptures had shown him that his job as a painter was not to merely amuse with pretty pictures, but rather to serve as a bridge between objective reality and the boundless imagination of the human mind, allowing him to overcome his natural resistance to the unknown by giving it concrete form. After that, Picasso finished his pioneering painting *Les Femmes d'Alger* in 1907. The painting is often credited as the starting point of Cubism and a formative influence on modern art throughout the twentieth century due to its depiction of various bodies from numerous angles and mask-like faces. In addition, major works from his Cubist period include *Bust of a Man* from 1908, *Head of a Woman* from 1909, and *Woman in an Armchair* (1909-10), all of which feature mask-faced figures composed of fragmented geometric shapes.

As a summary, many modern abstract artists, similar to Wassinger, shared a similar interest in abstract non-western forms and spirituality at the beginning of the 20th century. Ancient African sculpture, for instance, often conveys the spirit of an ancestor as well as a sense of sacredness, and mask-like face is one of their most unique features. By visiting the African collection at the Trocadéro and viewing African sculptures by other artists, Picasso was inspired by African art at that time. As a result, he created many influential artworks characterized by rigid faces and geometrical shapes. Moreover, Matisse may have also seen African sculptures at the Trocadéro and painted art with mask-like faces.

Anthroposophy

There were many modern abstract pioneers who were greatly influenced by the concept of spirituality, and some were also influenced by the Anthroposophical movement that swept across Europe in the early 1900s. According to art critic Michael Brenson,

The spiritual sparks that helped inspire the pioneering abstract art of Vasily Kandinsky, Piet Mondrian, Kasimir Malevich and Frantisek Kupka flew out of spiritualism and the occult. They were generated by such ventures into mysticism as Theosophy, Anthroposophy, Rosicrucianism, Eastern philosophy, and various Eastern and Western religions. Spiritual ideas were not peripheral to these artists' lives, not something that happened to pop into their minds as they stood by their canvas. Kupka participated in seances and was a practicing medium. Kandinsky attended private fetes involved with magic, black masses and pagan rituals.⁴⁴

Early in the 20th century, the Anthroposophical movement was founded by Austrian occultist Rudolf Steiner in Europe. (Steiner, who had been the director of the German section of the movement, However, broke with the wider movement to redouble his focus on culturally specific ideology symbols and discourses, and to develop a methodical focus on practical

⁴⁴ Michael Brenson, "Art View; How the Spiritual Infused the Abstract," the New York Times. <https://www.nytimes.com/1986/12/21/arts/art-view-how-the-spiritual-infused-the-abstract.html>.

applications of ideology ideas.), based on the research of lecturer Adam J. Sacks' article "The Spiritual Origins of Early 20th Century Abstract Art."

As Brenson points out, Mondrian was a member of the Dutch Theosophical Society and lived briefly in Paris. He said once that he "got everything from the Secret Doctrine" of Theosophy, which was an attempt by its founder Helena Petrovna Blavatsky to read, digest and synthesize all religions. In his 1910-11 painting "Evolution," he defines the ascending stages in a Theosophy journey through which he later hoped to guide the public in his abstract art. Moreover, Sacks points out that Artist and Theosophist Piet Mondrian paved the way for the abstract movement. Upon his passing in 1944, his apartment at the Theosophical Society's Paris headquarters was searched, and all the books and papers found there were related to Theosophy.

It seems that at that time, af Klint was also a supporter of anthroposophy. Based on "Inspiration and Influence: The Spiritual Journey of Artist Hilma af Klint" from the Guggenheim Museum: "In July 1908, soon after she had completed this remarkable time of creative productivity, af Klint met the Austrian philosopher Rudolf Steiner...sought Steiner's response to her work, turning to him as one of the most prominent spiritual leaders of the time. However, Steiner did not understand the message of her work, and questioned her way of painting and her mediumistic role." Additionally, according to Sacks, Steiner once refused an appeal from Af Klint for her paintings for his Anthroposophical world headquarters: the Goetheanum, located in Dornach, Switzerland that was completed in 1925. Even though he refused this offer, there is a striking similarity between the foundation stone for this building, and af Klint's paintings of this period.

In summary, several studies have shown that spirituality played an essential role in the emergence of modern abstract art, and many modern abstract pioneers have supported

Anthroposophy, however, it should be noted that the movement's principles are the subject of many criticisms at present.

Curation of Spirituality and Modern Abstract Art

There has been a rapid rise in the number of exhibitions devoted to spiritual abstraction over the past few decades. According to “Post-Spiritual Abstraction,” the revival of spiritualism can be traced back to the 2018 Guggenheim exhibition of Hilma af Klint, which broke attendance records and pushed the timeline for pure abstraction back to 1907.

In 1987, *The Spiritual in Art: Abstract Painting 1890-1985* exhibition was seminal: curated by Maurice Tuchman at the Los Angeles County Museum of Art, the exhibition highlighted at that time unrecognized women artists like Klint and Pelton and brought the attention of the general public. According to historian from the Los Angeles Times in regard to the catalogue,

The presiding genius behind the book and the exhibition, is followed by 17 essays on different periods, countries or groups of artists, all concerned with the spiritual and the abstract in art. The more than 250 works in the exhibition, representing approximately 100 artists--ranging from such earlier figures as Maurice Denis, Paul Gauguin, Ferdinand Hodler to contemporary painters such as Craig Antrim or Joseph Beuys--are listed...though the categories used in the installation--cosmic imagery, duality, vibration, synesthesia, sacred geometry--are mentioned by Tuchman in his introductory essay...Scholars have generally known of the role of spiritual movements in the late-19th and early 20th centuries as a background ethos in the emergence of abstract art; that is, art in which the traces of the visible world as we know it began to disappear. Never before has that role been documented so extensively as in this work. Since the spiritual movements and their major figures...alchemy, anthroposophy, cabala, fourth dimension, hermeticism, mandala, mysticism, Native American art, Neoplatonism, the occult, Rosicrucianism, spiritualism, Taoism, thought-forms, Theosophy, Zen Buddhism, as well as figures such as Helena Blavatsky, Jacob Boehme, Robert Fludd, Paracelsus, Rudolf Steiner and Emmanuel Swedenborg. In the essays themselves, all of these movements and individuals receive appropriate further attention.⁴⁵

⁴⁵ John Dillenger, “The Spiritual in Art: Abstract Painting 1890-1985 by Maurice Tuchman et al (Los Angeles County Museum of Art and Abbeville,” The Los Angeles Times, Feb 22 1987, <https://www.latimes.com/archives/la-xpm-1987-02-22-bk-5047-story.html>.

In summary, more than 250 works were displayed in the exhibition, representing approximately 100 artists. The categories used in the installation, such as cosmic imagery, duality, vibration, synesthesia, sacred geometry, are mentioned by Tuchman in his catalogue, as well as the spiritual movements and major subjects, such as alchemy, anthroposophy, cabala, fourth dimension, hermeticism, mandala, mysticism, Native American art, Neoplatonism, the occult, Rosicrucianism, spiritualism, Taoism, thought-forms, Theosophy and Zen Buddhism.

Regarding Worringer's notion of spirituality and abstraction,, *Abstraction and Empathy* is an exhibition curated by Carmen Giménez (the Twentieth Century Art Curator at the Solomon R. Guggenheim Museum in New York) which features works that embody an aesthetic divide similar to that described in Worringer's book. About a hundred drawings and prints by Joseph Albers, Michael Buthe, Blinky Palermo, and Thomas Schütte form the backbone of the exhibition. Moreover, Albers and Palermo's interest in the effects of color and geometry on the picture plane is analogous to Worringer's understanding of abstraction. And the more gestural, representational styles adopted by Buthe and Schütte that speak to the presence of the human body in lived space are more in line with Worringer's concept of empathy. In addition, paintings by Philip Guston, Paul Klee, and Piet Mondrian, among others, are on loan to supplement these artists' works and provide a glimpse into the trajectory of Worringer's influence.

Conclusion

Abstraction refers to the removal of information from something in order to focus on its defining features. Furthermore, The distinction between concrete and abstract is studied extensively in philosophy, yet it is difficult to define the difference between them. Abstract object theory addresses the issue outlined above. Furthermore, according to mathematical

platonism, numbers are abstract, and the purpose of mathematical abstraction is to simplify complex real-world problems by reducing them to their fundamental concepts.

The term rule or principle is sometimes used interchangeably with metaphysics, as well as the study of non-physical, extrasensory phenomena and mysticism. Additionally, metaphysics and philosophy are synonymous terms. The study of metaphysics has led to the conclusion that it is an abstraction of concrete things, and some academics have argued that mathematical abstractions and metaphysical abstractions are similar because both require illumination. Further, while metaphysical abstractions have their roots in the humanities and the arts, mathematical abstractions are derived directly from geometry and number theory, and metaphysical abstraction refers to the pursuit of unifying principles or rules which underlie physical reality.

The second chapter explores the relationship between abstract art and metaphysics through the lens of art history. The chapter examines abstract art from various cultural perspectives, including ancient Islamic and Chinese art. In addition, the chapter analyzes the works of Pablo Picasso, Wassily Kandinsky, Hilma af Klint, and Agnes Pelton to understand the history and influence of abstraction in visual arts.

To achieve an abstract effect, abstract artists often eliminate details or "schematize" their objects. This term can also refer to works of art that are entirely devoid of any reference to the real world and consist solely of abstract objects. However, it is difficult to define the difference between concrete and abstract art, and some scholars believe that all art is abstract to some degree. Rather than two separate fields, the abstract and the concrete can be seen as opposite ends of a spectrum, and this essay examines the spirituality of abstract art that is "purely abstract."

Abstraction plays a crucial role in the history of art and in the development of art. There is a theory of abstract art originating in the Paleolithic period. A lot of art throughout history has been metaphorical and abstract, including ancient Sumerian and Egyptian art, Byzantine in Middle Ages, and other cultures. Many ancient artists abstracted their work in a manner similar to that of modern abstract art.

With regard to modern abstract art movements, a number of movements can be traced back to modern abstraction, including Fauvism, Cubism, Digital Art, Hard-edged Painting, Geometric Abstraction, Minimalism, Abstract Expressionism, Color Field Painting, the Bauhaus, and Neo-Dada. Abstract art developed rapidly during the twentieth century, giving rise to the aforementioned schools. Furthermore, Worringer is the one who made the connection between abstract art from before the 19th and 20th centuries and contemporary abstract art, and a heated discussion emerged after the book was released among avant-garde abstract artists. Generally, Worringer encourages people to consider abstraction across time and space, and many early abstract artists shared Worringer's interest in spirituality.

In particular, many of the early 20th-century modern abstract artists looked to non-Western cultures for inspiration, and their work often featured abstract forms with spiritual overtones. For example, sacredness and a connection to the past are often conveyed in ancient African sculpture through mask-like faces. The African collection at the Trocadéro, as well as the African sculptures of other artists, served as a source of inspiration for Picasso at the time. Many of the works he produced featured geometric shapes and expressionless faces.

In addition, the spiritual movements, such as Anthroposophical movement of the early 1900s influenced many abstract pioneers, and many of the abstract movement's early pioneers were strong Anthroposophists. The guiding principles of the movement, however, are being

challenged. In general, numerous academic investigations have established the importance of spirituality in the development of contemporary abstract art.

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