

J. Appl. Environ. Biol. Sci., 4(3s)46-51, 2014

© 2014, TextRoad Publication

ISSN: 2090-4274 Journal of Applied Environmental and Biological Sciences www.textroad.com

The Role of Sensory Perception in Plato's Aesthetics

Maryam Bahmanichahestani and Pooran Poodat^{*}

Farhangiyan University, Bandar Abbas, Iran

Received: May 13, 2014 Accepted: July 6, 2014

ABSTRACT

Analyze and reflection on the beauties, like the categories of philosophy and humanities, has been dating very long time. The ancient Greeks have had major participations in its development. Applying aesthetics term to these writings contains negligence to some extent. But the works and reflections of human thinkers on the concept of beauty cannot be denied, and their deep and diversified viewpoints and theories cannot be ignored. This article attempts to investigate the concept of aesthetics in the works of Plato and the role of sensory perception in his aesthetics. For this purpose, indicators such as love and art have been evaluated in his works. Plato was a philosophical theorist and regard to the fact that his conception of beauties and his concentrations on aesthetics is undeniable; in this study they have been analyzed.

KEYWORDS: Sensory Perception, Aesthetics, love, Art, Plato

1. INTRODUCTION

Pondering over the beauty and elegance truth, like other matters of philosophy and humanities has a long history and is several thousand years old, so that the ancient Greeks - as it is inferred from Plato's great Hypas theses (The Hypas-Pistas) and Aristotle's Poetics - have had major participations in its development [1]. However, applying aesthetics term to these writings contains negligence to some [2].

In terms of aesthetics, the first and principal question is that what the nature of beauty or elegance is. That is to say, how beauty and elegance can be defined and as logicians say, what is the genus and separation of beauty? In other words, which category does beauty fit? Is it some kind of essence? Is elegance within the category of quantities or qualities or it is a kind of passiveness (reaction)? Regardless of their analytical components, in terms of existence and objectivity they include which elements? Can knowledge extent and sides be defined for it? Finally, in terms of epistemology what is the relationship between beauty and love?

Plato, whose name shines on the apex of Greek philosophy as the founder of a philosophical system and most of philosophers after him to date are affected by his thought, has ideas and the theories in dimensions of epistemology and aesthetics. Thus, the significance of Plato is not just for presenting reminder theory. The deep, comprehensive and satisfying understanding of any one of these theories requires understanding of governing system on his thought. But in this article what is intended to investigate is the role of sensory perception in Plato's aesthetics.

Plato's Aesthetics

Love: Love in Plato reflections is introduced as being embraced by philosophy. It means that in his thought system the man's ability to perceive love and in a more apparent word "The ability to fall in love" represents the ability and competence to achieve knowledge. Hence in Plato's thought, the one who is deprived of love is derived of philosophical understanding [3].

In Plato works, there are many texts and evidence in support of the bond of love and philosophy. For example, in Plato's Republic book in stating the reason for philosophy loneliness, companionless and disgrace he writes: "A group of strangers who have heard nothing of love, have approached philosophy and have brought it into disrepute sinkhole". In Symposium book he writes: "Eros is a philosopher". In Phaedrus, when claiming for Phaedrus, Plato asks Eros to lead him to dedicate all his life to philosophy and love [3].

Symposium book: In Greek Philosophy, Guthrie [3] says: "In terms of the subject, Symposium book is the most closest one to Phaedrus and it is almost no doubt that it is written before Phaedrus".

From the introduction of Symposium conversation it can be inferred that Plato himself is not present at the quoted flows text, and Taylor believes that Plato does not want to completely confirm the historic accuracy of the quoted contents.

Plato in Symposium book, by adducting the evident that love seeks beauty and elegance and the seeker of something could not possess it, denies the thoughts of all speakers before himself, who had described love beauty in the symposium, and concludes that love is neither nice, nor tender [4]. He also notes that it does not mean that love is bad and ugly. Just as in Plato's epistemology, virtue is the mediator of knowledge and ignorance, there is

also a mean between beauty and ugliness that Eros is one of them. Therefore, Eros is neither good nor beautiful, but it does not mean that he is ugly and bad. He is something between them.

Plato concludes that, unlike most people's illusion, Eros is not god, because all gods are beautiful and fortunate. Of course, Eros is not an extant but is an intermediate between gods and mortal beings [4].

Eros the Great Daemon and other Daemons are mediators among gods and mortal beings. Somewhere else, Plato in the statement of Eros task writes:" He is an intermediary between gods and humans. He brings men's prayers to gods and gods' commands to men. So as it can be seen Eros is positioned between gods and the human and he fills the distance between them, and because of his existence blessing all the world joins together to form a unit. All the priests and fortune tellers have predictions and impact arts from Eros. Gods never have a direct relationship with men, and any relationship between god and man, whether awake or asleep is set up with the help of Daemons and anyone who is aware of this secret has Daemon's power, while all other sciences and arts are ground and secular forces. Daemons are countless and have different types. Eros is one of them" [2].

The last statement of the quoted words indicates that being Daemon is a common matter between love and other kinds, so it is as genus. Now it should be investigated that what is the discriminator of love from other kinds? On the following of the dialogue Plato by substituting goodness for beauty, (The substituting is controversial because on Hypas, he rejects the beauty and goodness sameness) writes:

The concept of love in general is any attempt to achieve goodness and happiness and this is the highest aim of every man. But the word is not applied to those who follow the aim through various ways, for example gaining wealth or education or philosophy. Only those who follow a particular way to achieve the desire are called lovers [4].

Then, Plato states that the human beings not only want goodness, but also they want to own it for always and he concludes that:

Love is the desire to possess the goodness forever.

But it should be clear that what is the particular way the followers of which are called lovers in the proper meaning of the word (not the general meaning that was mentioned above)? Then, Plato answers: "The tendency for beauty and the believe in making something beautiful, whether that beautiful is the body or the soul. The love discriminator from other efforts is achieving goodness", and he explains his words so that "the natural desire to generate enthusiasm is the eternal and godly aspect of mortal beings and as the gods are compatible only to beauty and generation is possible only in harmony and compatibility, producing ugliness and placing descent in it is not possible. Therefore, beauty is a goddess that leads the birth and assists the birth giver [5].

Someone whose nature is disposed to fertilize because he achieves beauty, a crazy desire to produce (this insanity is called love) takes him and he tries to put his descent in beauty bed. Since the end of love, as previously mentioned, is having goodness for ever, love at the same time seeks goodness and immortality, and as the immortality of the mortal beings is achieved only through reproduction, it can be said that love end is reproduction and beauty production, not beauty itself. But it is important to see whether there is inconsistency in the Plato's words? Shortly before he had explicated that love cannot be beautiful because it seeks beauty and goodness. But now, he introduces the end of love as reproduction and beauty production. The one who reproduces beauty undoubtedly must take advantage of beauty, because the creator of the object cannot, but the beautiful love can have reproduction of beauty. On the other hand, from Plato's point of view the lover is located in a higher rank in terms of beauty and understanding towards other humans, and has reached puberty and fertility of beauty. In Plato's thinking system, loving is the only dignity of the philosopher, and as already noted Eros is a philosopher and in Plato's class structure philosopher is located at the highest level. So, how the philosopher - lover who is beauty producer, cannot enjoy the beauty!!!

Understanding this point and grasping adaptation of Plato's thought on the issue of love requires an understanding of the dialectical structure of his thought system. Plato's dialectical process, which means the transition from the lower stage to the higher stage, is the idea that regardless of its consideration, explanation of any question of Plato philosophy is not possible.

Accordingly, love and beauty have stages, and Plato in Phaedrus and Symposium book with two different explanations, states this problem. So regardless of what the identity of beauty is (Plato in The Great Hypas, trying to lighten it, ultimately asserts that beauty is difficult), it is no doubt that it is subject to stages and in terms of Islamic philosophy it is a matter of doubt and at its highest level, it is an example of beauty and to the extent that human beings have power to perceive truth, are able to perceive beauty [5].

So, when Plato says, love is not beautiful, he means that love is not beauty itself or lover is not the virtuous beauty himself because he wants it. But this does not mean the lover deprivation of beauty, because, as previously mentioned, a second time it is denied in terms of the beauty. But if the issue is this, it should be clear that what the lover wants to achieve by loving the beloved who has less actual soul beauty? Plato's dialectical process, within which the role of sensory perception in the issue becomes clear, answers the question. In Symposium book, Plato writes: the person who wants to follow the right way to achieve the ultimate goal of love, must fall in love with beautiful bodies in youth. If he is lucky and an experienced leader guides him, he first falls in love with a beautiful body and strives to give her the hidden descent inside himself through beautiful words, and fosters it with her help. Then he finds out that the beauty of one body is the same as the beauty of the other bodies and all the beauties are of the same antecedent. So he says to himself that if I'm fascinated by beauty of body, there is no reason to prefer one body to other bodies. With the emergence of this identifying, he falls in love

with all beautiful bodies and gives up the attachment towards one body, so that he despises the attachment. When he reaches this stage, he can see the soul beauty well. Then he finds out that the beauty of the soul is very higher than the beauty of the body. Now, if he finds a youth who has a beautiful soul, although she does not have so much beauty, he falls in love with her and looks for words and ideas that can train her with the help of them.....

But he does not stay on this stage and willy-nilly steps on a higher stage and sees the beauty of ethics, etiquettes, traditions and laws and he perceives their uniqueness and familiarity. So, he despises beauty of body and neglects it. Then the leader should turn his spirit towards knowledge and arts to see their beauty as well. When he becomes acquainted with the various manifestations of beauty, then he will not adhere to a single manifestation and he will not be the captive of youth or mental or practical beauty. He will sail on the beauty endless sea and he will see at a glance all the bandwidth and meanwhile he will create a lot of beautiful words and deep thoughts and he will achieve the unique certain identify whose subject is particular aesthetic by the help of their force.

So love has a dialectical process through which the lover philosopher is evolving in terms of existence and knowledge.

Dialectic of love begins with sensory beauty and without attachment to earthly beloved in the early stages, achievement of higher levels are not possible.

Beauty is in the category of creation rather than exploration. It is very important that Plato, in the last lines of the quoted paragraph as well as in the expression of the ultimate love in Symposium Book indirectly refers to it. Plato says: "the fact that the end of love is not beauty itself but is reproduction in beauty, does not mean that producing beauty is anything other than beauty itself, but beauty is essentially the same as beauty creation. The lover philosopher makes himself more beautiful by creating beauty, so that as the effect of strive and endurance of love suffering, he deserves discovering the true and virtues beauty. In this regard, Plato exactly says:

The one who has passed all the stages in the love way, and has experienced plenty of beauty as it was mentioned, in the end of the way will face an astonishing beauty whose nature is other than the nature of other beauties. This particular beauty, dear Socrates, is what all the efforts and the journey have been made to achieve it. Firstly, this particular beauty is an everlasting existent that neither is created nor it becomes larger or smaller. Secondly, it is not in some terms beautiful and in some other terms ugly, or sometimes beautiful and sometimes not beautiful. It is something in itself and for itself that always stays the same and never transforms. Every beautiful thing is beautiful because of the interest it has enjoyed it, but the efficiency is not so that the creation and destruction of those things lead to any profit or loss for it [5].

Phaedrus Book: Phaedrus Book that is considered as one of the most important books of Plato represents a variety of topics such as love, immortality of the soul and its identity, and reminder. What is used from this book in the present article is the definition of love in Plato's point of view. Although this book has been evaluated from various aspects, according to the present study it will have a new direction.

Most of scholars believe that after Republican, Symposium and Phaeton, Phaedrus Book is very important. The book is a two-person conversation between Socrates and Phaedrus. At the beginning of the book Phaedrus presents a speech of Lousias in blaming love that Socrates does not like it and he himself presents another lecture on the same subject. Then a divine voice warned him that he has blasphemed. So, he gives another piece of lecture in praise of true love,, the love that raises spirit to its true and eternal status [6].

In the first speech, Socrates introduces love as an irrational desire to achieve beauty, the desire that dominates true recognition faculty. Patient mind of the lover seeks to keep his beloved tractable. He keeps his beloved away from promoting familiarity with philosophy and calls her to perversity. The lover considers the beloved's parents, friends, family and marriage as barriers to his joy and he even hates her wealth. As the beloved loses her freshness, the lover leaves her and forgets the good promises for which the beloved had yielded......

Socrates terminates his speech by reciting a verse of a poem and suddenly he stops. A divine voice decrees him that before leaving the place he must purify himself according to the letter. Thus, Socrates gives another lecture in the description of love and states that the love is God and what Lousias has done is profanation.

So Socrates acknowledges that what has been said about the madness of love is true when madness is always bad. But there are God-Given insanities that are the origin of the greatest bless. Then he expresses different kinds of virtuous and worthy insanities and says if we consider the art of prophecy, the frenzy kind of it is much higher than the art of conscious prophecy using the signs and divination. The second type of insanity can rescue individuals or families who have suffered the effects of some sins by prayer and worship and ritual purification. Third is the madness of science and art gods and other kind of insanity is love. So, the divine love is insanity that can be beneficial to both the lover and the beloved. In the containing dialog, Socrates tries to prove the fact that love is a divine frenzy, and he proofs it through the definition of soul-identity and by presentation of the myth of the spirits flow. In the definition of soul he says that soul is an animated fact and leads to the animation of inanimate objects, and therefore soul is an immortal and eternal fact. Nature of soul can be compared by the unifying force of a pair of winged horses and their charioteer. The horses and charioteer are the good gods and have good compatibility. But non-gods have a mixed mode. One of the horses is good and the other one is bad, and this puts heavy lifting on the charioteer. The spirit circulates in the world and maintains the lifeless creatures until he is complete and winged, and flying above the earth. But when he loses his wings, he falls down. Until he reaches a solid thing and finds an earthy body and resides in it. After that, it seems that the body moves itself and the combination of both creatures is called mortal creatures [4].

On the continuing Plato represents the popular myth of the spirits flow and says: among the physical facts, wing has the most profit of divine facts. Because it draws what is heavy to place where the gods live. Therefore, beauty, knowledge and goodness that are divine facts strengthen the wings of the spirit and enfeeble their contrasting. Gods and Daemons move in eleven categories. Each of the gods is the leader of one category. While Zeus is the head, and Hestia (goddess of hearth and home) has not been outside. Every soul that has power can follow them and can observe full of blessing effects in the rolling sky. They ascend to sky coast on the hospitality day. The elevation is possible for the sky god, but it is difficult for others. Their heavy and bad horses try to lower them to the earth. The souls that are considered as immortal climb to the roof of the sky, and the sky turns them into his path, and they are amazed at the things that are out of the sky. Reality, reasons and invisible principles that only wisdom is able to percept it is in that region. The gods, who are fed by pure wisdom and knowledge, are enforced and refreshed by observing realty. While completing the circulation they manage to visit justice, self-control, knowledge, and so on. The knowledge is not the one which has different states in different things and we call it real, but the true knowledge of the true existence. After being entertained in the light of reality, they will return to their homes. Among other spirits, the best of them in the circulation will follow them, while the charioteer's head is located out of the sky rolling. Although horses bother him, he can just barely see the truth [3].

Others occasionally raise their heads and sometimes pull inside and sometimes they are drawn into the dome. So just some of them can see the realities and the others cannot reach the peak and in the meantime they are making strives they trample each other. Many people are injured in the course of this effort. Their wings are broken. They lose the light of reality and they start the trip to be fed up by the beliefs. The meadow where the wings of the spirits will heal grows in the truth plain. Plato describes the fate of spirits and says:

The spirit who has followed the gods, and has observed anything of the truth passes the course without any damage. But when he cannot follow them and is hindered from seeing the truth, as the result of misfortune he becomes forgetful and incompetent and he loses his wings and falls to the ground. The first body of him is in the form of a human being and he will be placed in the body of one of the nine categories who were classified by the amount of truth they have met:

- 1. Followers of knowledge, beauty, culture or Love
- 2. Rulers or commanders of war
- 3. Politicians, managers or businessmen
- 4. Athletes, coaches, physicians
- 5. Fortune tellers and experts in religious rituals
- 6. Poets and other imaginative artists
- 7. Artisans or farmers
- 8. Sophists or the demagogues
- 9. Tyrants

Those who take up good life at this stage will have a better destiny after death. No soul can return to his original state before elapsing 10,000 years, except for philosophers and philosophy lovers that will regain their wings after passing this way 3 successive times. Other spirits are tried and as a result they are sent to the basement to be punished or they are headed to a place in heaven and after 1000 years they choose their second life. This time they will be in the form of an animal or human. Plato goes on to note that among the kinds of divine insanities the fourth kind (Love) is superior to all, because in this state sighting beauty in this world reminds the person the real beauty and his wings begin to grow. However, he still can not go up, but always looks forward to heaven. The reminder is not easy for everyone. Some has met reality just for a blink, and some have involved in crimes and have forgotten what they had seen sometimes. Recognizing the spiritual virtues such as justice, self-control, and wisdom, is more difficult through their worldly manifestations. But beauty can be perceived by the strongest sense power (vision).

After the statement of the above topics, Plato expresses the difference between love servants (who have met the reality more than others in the spirits circulation) and the ordinary individuals who have less ability to acquire knowledge and writes:

The one whose reminder talent has become weak or has been affected by corruption cannot remind the beauty by watching what is called beautiful in the world and he will not be drawn to the virtuous beauty. As a result he is not inclined towards worship; rather he is intended to seize it and like beasts, he falls into the trap of lust and involves in meeting physical needs and he does not shy of being at the control of capricious desires against the nature. But the one who has met beauty in heaven a few times and still has not lost innocence and joy, as soon as seeing an appearance like the face of gods or an organ in which a beautiful image is visible, first he feels a quake in himself and the intimidation that had entered in his heart when viewing the "beauty itself" will overcome on him. Then he bows down the worship head for it, as if he has seen the image of God or God himself [4].

Every soul loves the state in which he has accompanied the god of that state, in his heavenly journey and he looks for a human who is compatible with that state and tries to create that god in her more and more. Thus, a person who is a follower of Zeus looks for a human who is naturally philosopher or leader. Hera follower seeks the one who has royal temperament as well and each try to enhance the quality of their interest in him. He will also find that characteristic in himself and will be captivated of his god.

Finally, according to Plato and myth of the sprits flow, the difference between philosophers and other people is exactly in the fact that philosophers can have dialectical transition from earthly beauty to example beauty and other people, due to the lack of such power, just stop in the earthly beauty.

The role of sensory perception on art in Plato's thought

Logical relationship between sensory perception and art is absolute public and private. That is any absolute of art work necessarily belongs to any sensory perception and not vice versa because each work of art (both in the creation and discovery) must necessarily pass through one of the five senses. For instance, music and poetry belong to sense of hearing and painting belongs to senses of sight [6].

The top difference between two categories of the art and love aesthetic is that according to Plato, love belonging can be a supra-sense factor. In Plato's dialectic stages in love, the love with the rational and the examples is presented that is never sensory. In addition, another difference between the two categories which can be identified is that in the art, reality is the source of artwork creation and therefore reasonably is prior to the existence of the artist. But in love, the lover person is involved in the production and creation of beauty in the external world. The difference between sensory perception in art and sensory perception in knowledge is that art possesses an aesthetic background that knowledge lacks it [5].

Plato's viewpoint on art

In Plato's viewpoint on art, we can clearly distinguish the two types of approaches:

First approach: the exclusion of art and denouncing it

Second approach: the acceptance of art and encouraging it

For each of these two approaches there are evidences in Plato's Epistles. Some of them are mentioned below and then in the final conclusion Plato's point of view is investigated.

First approach: rejection and denunciation of art

Plato in his Republic writes: the painter does not make copies of the objects easily and exactly, because he is the imitator of the appearance and manifestation and not the imitator of reality. The artist, who paints a bed, is painting just at one perspective. That's to say as it appears to his senses. Poet also describes health, war, etc. without any real knowledge of things about which he is speaking. Thus the mimic art is very far from the truth [3].

In Republic, Plato excommunicates poets of the Republic and he states the reason for rejecting them and their mimic poems and says mimic poem is a deadly poison to those who are incapable of knowing the nature [3].

Plato in the tenth book of Republic mentions three existence ranks of face, its natural partial covers and artists' covers. He writes: "artisan makes a lot of beds, but each of them is an attempt to achieve a single goal, that is creating the complete face of bed in material. But in the third rank that is a painting that the artist has painted out of bed, it's just a manifestation of it and no one can make the bed real. Similarly, the dreamer poet also makes some manifestations that are far from reality. So an artist can for example paint a shoemaker while working, without any understanding of his craft, as a poet can do so. Only the user of a tool has cognition of it therefore he can determine which tool is perfect but the imitator has no real knowledge of the goodness or badness of what is portrayed. He is considered as an ignorant that writes for himself. That is why poetry in Plato's society in a broad sense, is not allowed [6].

Plato in Republic, compares the protest towards tends to the poem (after understanding the poem pest) with the acting of a lover after he realizes his love has no benefit for him and tries to resist against his feelings.

Second approach: acceptance of art and encouraging it

In Eon, Plato writes: beautiful works of poets is neither human artwork and nor they are a kind of human work. It is a work of god and the poet is an unintentional translator and instrument of the god speech that is placed within him.

In other words in Eon book he states that:

The great epic poets do not create their eloquent poetry with the support of their art and they are not aware of its existence, but the lyrics are borne by the rapture they will experience. Sonneteer poets are also subject to this rule.

Plato in Republic says that: "we are ready to acknowledge that Homer is the greatest tragedy writers and is the most excellent poet. But we must recognize that in our Medina only those poetries are accepted and allowed that are based upon praising gods worshiping goodness. If poetry and other arts confirm their eligibility for admission in a well-ordered country, we will be pleased to accept them, because we're very talented and ready to accept their beauty and attractions, but the reality must not be betrayed for the sake of this" [6].

Plato in Rules treatise says that those who are searching for the best type of music or song, should seek for what is true, not what brings pleasure and good music has a mimicking truth. He also notes that the only music that has real advantage is the music that is an imitation of goodness [6].

Regardless of Plato's views and direct statements about art, his very artistic way to set up his epistles is a testament to his tendency towards art.

2. CONCLUSION

We have seen that Plato to explain the role of sensory perception in aesthetics using his dialectical method proposes two alternatives of the problem. Based on his particular attitude, he rejects one of them and chooses another. The first explanation of the problem is the equality of knowledge and sensory perception. We discuss this issue based upon Theai Tetous treatise. A treatise that is well-known for the negative design of knowledge subject.

At the beginning of the treatise he tries to provide a description of the nature of sensory perception. Plato has assumed the teachings of scholars before himself. He reviews and investigates them so that he achieves the most accurate explanation.

Assumptions in this course are two dialectical doctrines of Protagoras (man is the measure of all things) and Heraclitus (everything is constantly changing and moving). Through expurgation of extreme elements of both doctrines, he presents a specific explanation of the nature of sensory perception.

Plato applied Heraclitus Lessons to explain the features of sensory perception belongings. Plato's aim for presenting this doctrine is to attribute Sirurt to all objects of tangible world. But he refused to accept unconditional extreme Heraclitusians that things are always changing. This promise makes knowledge impossible. He used Protagoras teachings to explain the relative nature of sensory perception (presenting arguments against Protagoras) that sensory perception is not equal knowledge.

Finally, Plato shows his critique of sensory perception being knowledge and says that sensory perception cannot be total knowledge, because we understand the things that we obviously perceive that they are not obtained from feeling.

Finally he makes his argument focused on the meaning of existence, and says as every promise included the concept of existence and this concept does not come through sense, so knowledge is unique to sensory perception.

Plato considers dealing with tangible and having the knowledge necessary for the sensory perception. However, his desired end is example universe and achieving intelligibilities, but he thinks that it is impossible without knowledge processing. Sensory perception is the first stage of passing this hierarchy, the hierarchy where the refuse in it is never permissible.

The final point is that not only the philosophy of Plato, but every philosophical system, if wants to claim for being realistic, should accept the position of sensory perception as an unmatched condition, because the sensory perception is the first bridge between the human and the outside world and therefore it is the only criterion for distinguishing truth from illusion. This position is very important for the acquisition of knowledge as well as in the issue of the taste of love, because taste issue has aesthetic value and credit when it has a benefit from knowledge. That is to say it is a taste of discovered reality.

REFERENCES

- 1- Khorasani Sh., 1998. Aristotle, Metaphysics. Tehran: Hekmat Publications.
- 2- Ganjur M., & Imam Jomaah, S. M. 2010. Philosophical aesthetic and the analysis of the theory of " beauty authenticity" in the Holy Wisdom, Islamic studies, philosophy and theology, Forty-second year, consecutive number 84/2, Spring and Summer, 125-146.
- 3- Guthrie, W. K. C. 1998. History of Greek Philosophy, translated by Ghavam Safari M. and Fathi H., Fekere Ruz.
- 4- Kaileston, D. 1983. History of Philosophy, translated by Mahnivi S. Tehran: Cultural and Scientific Publication.
- 5- Werner Ch. 2003. The Wisdom of Greece, translated by Naderzadeh B., Tehran: Cultural and Scientific Publication.
- 6- Comports, Th. 1996. Greek scholars, translated by Lotfi M. H., Volume One, Tehran: Kharazmi Publication.