

Broken of Bravery to the Invention of Rifle: A View on Project Technology Context of Creativity and Mastership

Assoc.Prof.Dr. Mehtap DEDE KODAMAN

Trakya University, Educational Faculty, Division of Fine Arts Education, Painting Education Department

Edirne/TURKEY

mehtapkodaman@trakya.edu.tr ORCID ID: 0000-0003-2051-6621

ABSTRACT

The aim of the study is to bring a critical perspective to the use of projection and copy technologies, which have become widespread and degenerate by developing technology, in the art of painting. The data were evaluated by methods such as literature review, sample analysis, observation and experience. Projection technologies and the history of the camera obscura were examined. The effects of technologies on the art of painting have been questioned: reflection technologies such as photography, video, projection; printing technologies as blueprints and digital printing. The technical process on the basis of reproduction by projection consists of tracing the image and its repetition. Thanks to the printing technologies, this is not even necessary. This method which undermines the creative process, weakening hand-brain-eye coordination, perception development, imagination and composition design; can bring impersonality and uniformity. Wide range of uses and causes of projection technologies, concept confusion and discourses, the dimension that threatens creativity and mastery , encouraging use to support creativity; the subject has been interpreted on the basis of art ethics and aesthetics. One of our most important problems as a country is that we cannot be productive and creative enough to compete with the world market. The origins of the gradual decrease in the importance given to art and creative thinking and the loss of inventive ability can be found in the wrongness of education and cultural policies. We need research and studies that try to bring creativity and inventiveness to the fore, not imitation, and prioritize creativity in art and education through art.

Keywords: Painting Art, Camera Obscura, Projection Technologies, Copy, Creativity, Art Education

"Rifle was invented, manhood broke" Köroğlu

INTRODUCTION

If we look at the sky after the rain, we observe the rainbow formed by the light reflected from the water. With the same logic, Newton discovered the laws of color, which passed the light through prism. The first projectors are made up of these simple laws of nature, it consisted of light, its transmission, glass prisms, spheres, mirrors, water, etc.. The development of optics -astronomy and the projection technologies are parallel. Reflection technologies have been used in various ways and purposes throughout the history. Projection technologies, like any technological development, can be diverted from its purpose.

Nowadays, handcraft have been replaced by ready-made productions; pure art has been replaced by more articulated, genetically modified, art-like products. As a result of the fact that the technological tools are getting more between the artwork and the artist, ready-made presentations have increased, which makes difficult the separation of aesthetic object and artwork. In the article, the threat of copy, projection and printing technologies at the center of these problems and their use exceeding the purpose, were questioned.

Art is the act closest to person's own essence. As the artist moves away from the purpose of existence and spontaneity, she moves away from the arts. How should be shaped Art Education on the basis of originality, creativity and craftsmanship?

THE STUDY

The data were evaluated by methods such as literature review, sample analysis, observation and experience. Projection technologies and the history of the camera obscura were examined. The effects of technologies on the art of painting have been questioned: reflection technologies such as photography, video, projection; printing technologies as blueprints and digital printing.

FINDINGS

Projection Technology History

Shapes reflected in shamans' drums with the help of light and shadow; perhaps it was the first projection



drawings. It is possible to see old traces of reflection techniques from shadow theater to sun temples such as Abu Simbel temple where the light is specially dropped from a cone or hole on certain days. The concept of contemporary painting is based on the canons of the philosophers and artists of Ancient Greece and Rome, and the Renaissance, which is its revival. Gombrich (1951: p.56; 1998: p.57) says that we are all the pupils of the Greeks, and the Greeks are the pupils of the Egyptians.

"According to Pliny, this art was carried into Egypt by the Lydian Gyges, who, standing near a fire, and observing his own shadow, instantly sketched himself on the wall with a piece of charcoal" (Vasari, 1855, p.12; Vasari, 2013, p. 27).

Al-Kindi who was probably born late in the eight century in the city of Al- Kufa was the first major philosopher of the Islamic world to study optics. It is to bring criticism to the Greek philosophers' theories about vision, the propagation of light from the object and the eye (Lindberg, 1981, pp. 18-33). Ibn al Haytham (Alhazen) was born in Basra in 965 (Hogendijk, 1985, p. 53). "We have no evidence so far, or knowledge, of image projection via a Pinole in a camera obscura prior to Ibn Al Haytham." (Russell, 2019, p.663).

"The two words are "retina" and "lens" – in Arabic, al-shabakiyya, and al-'adasa. Their absence signals that, for the author of the book, the organ of sight, al-başar, rendered in the Latin thirteenth-century translation as visus and oculus, is not to be understood as a pin-hole camera (as, e.g., in Leonardo) or a lens camera (as, e.g., in Kepler)... However, whether intentionally or otherwise, in I/6, Alhazen does lay down the principle of the pin-hole camera..." (Sabra, 2007, p.53).

"If a white body with a pitch black section is seen from afar, that section maybe judged to consist of darkness so it will be concluded that right where that section maybe judged to consist of darkness behind[the surface of] that body seems to show." (Alhazen & Smith 2001, p.609).

"In November 2001, David Hockney's Secret Knowledge. Rediscovering the Lost Techniques of the Old Masters was published with great fanfare. It made the claim that many artists from the Renaissance on used a now antique technology, the camera obscura, to make their paintings... If Hockney is correct, then many revered artists could now be thought to have 'cheated' by copying an image produced by a device, a sort of drawing-by-the-lines approach taken as 'inauthentic' by the art crowd who implicitly favored hand and brush." (Ihde, 2008, p. 383).

It was not a crime to seek help to capture the curiosity, secular realism, analogy anxiety and objective realism that led great artists to these discoveries. At that time pictures photo function and one-on-one analogy was very important.

"Leonardo da Vinci (1452-1519) mentions the camera obscura in his Codex Atlanticus and Manuscript D giving detailed accounts of the camera obscura effect, diagrams, observations, and explanations of its principle. He, like many scholars before and after him, tried to solve one of the outstanding optical puzzles - how the eye works. But it was not him but Kepler who made the most significant step for our understanding of vision since Alhazen. Being in the position to compare the eye to the optical camera obscura rather than to the pinhole camera, he developed a convincing understanding of the role of the eye's lens and retina. If the back layers of the eye were to be peeled back, there could be seen the inverted image normally cast on the retina. This experiment was actually carried out with an ox eye by the Jesuit scholar Kaspar Schott in 1657...René Descartes (1596-1650) compared the eye to the camera as well, stating that the retina was the same as the screen of the camera obscura...The scioptric ball or "ox-eye lens" was developed in 1636 by. Daniel Schwenter. The movable lens-ball in the aperture of the scioptric ball allowed the artist either to draw or to paint panoramic views...Reinerus Gemma-Frisius (1508-1555), observed an eclipse of the sun with a camera obscura at Louvain on January 24, 1544... Galileo was one of the first to make serious studies of sunspots (1610)... John Flamsteed (1646-1710), reports this use of a camera obscura during the solar eclipse of July 2, 1684... Christopher Scheiner (1575-1650) used his "Pantograph" or "Helioscope", a portable camera 22 metres in length, equipped with a telescope to view sunspots. With this instrument, ..., he was able to project the surface of the sun onto a piece of paper." (Wenczel, 2007, p. 24-29).

The hey-day of the optical camera obcura was between 1600 and 1800(Lefevre, 2007,9). Human beings have been interested in visual games and perspective for about five hundred years (Keleşoğlu & Uygungöz, 2014, p.8). Two names stand out in the invention of photography: In 1827, Joseph Nicéphore Niépce was the first to



stabilize the camera's image; In 1839, Louis-Jacques-Mandé Daguerre improved the exposure and stabilization processes within the camera obscura with chemical processes (Davenport, 2000: p.6-8). All recording and printing processes owe the invention of photography. Thanks to reproduction, Benjamin (2005, p.13,15,21) says of loss of the authenticity and the aura; he claims that it has been freed from the ritualist structure of art. If we expand the meaning of magic and ritual here, actually the art has lost its inspiration. Girgin (2018, p.35) approaches the subject more functionally: "After the first world war, the paintings created with different meanings in the Pop Art and New Realistic approach tried to integrate the popular culture on the one hand and the elite on the other".

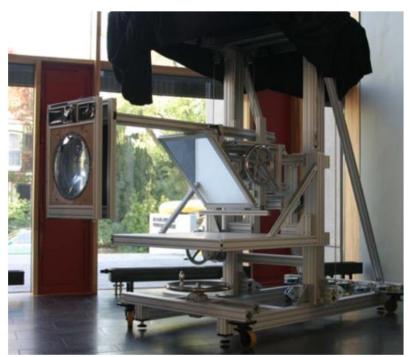


Figure 1 The Experimental Historical Camera Obscura Max Planck Institute Berlin

Projection systems are much more advanced than yesterday. Although it is difficult to transfer colors and details in the past, nowadays two-dimensional, three-dimensional color images can be projected and printed on the canvas. Freezing and transferring motion images is no longer a problem. Painting can be done on the canvas or on the wall with robo-technology.

"Peter Weibel took the critical approach in his essay Transformation of Techno- Esthetics (1991). All key concepts used to define art over the past two hundred years by philosophers such as Kant, Hegel and Heidegger, according to Weibel, fall flat as a result of what he calls techno-art... It not only undermines our faith in the image as a representation of reality, it declares the image to be irrelevant... Techno-Art emancipatory because it is aimed at overthrowing the power concealed in the classic concept of art. Techno-art according to Weibel is an anti-force, an anti -art." Mulder and Post (2000: p.117-118)

Here, there is some shifting of meaning and confusion. Technology has been shown to be anti-power, in fact, technology is in the hands of hegemony. Moreover, by saying that power determines what is true and spiritual, he transfers the concepts of creativity and inspiration and human nature to robo- technology and defines it as freedom. Our belief in reality was not undermined by robo technology, but was already undermined by physical advances and modern painting. Besides, in the manifesto of v2 (1987) exemplified by Mulder and Post (ibid), the statement "Art should be both destructive and constructive" was already the essence of modern art. What we are against here is not the use of technology for art. It is the dimension that replaces human nature, ignores creativity and inspiration.

Development of Copy and Projection Technologies

Although copy has been seen as an educational tool throughout history, copying and its types have increased today. We can summarize the causes of copying and proclivity to copy materials as follows:

- 1. Academic understanding that objective realism is dominant
- 2. Objective realistic power of photography



- 3. Habit from student period
- 4. Shortening of time
- 5. Increased interests
- 6. The development of technology
- 7. Speed
- 8. The complexity of the environment
- 9. Dense population
- 10. Unemployment
- 11. Increased interest in art
- 12. Misperceptions and judgments about art
- 13. Art market
- 14. Ease of convenience and easy way to get results
- 15. Fatigue
- 16. Herd mentality
- 17. Not knowing the value of originality
- 18. Not knowing the value of labor
- 19. Unqualified increased demand
- 20. Some jury and art consultants do not have enough knowledge, cannot reach technological speed, do not have universal perspective.
- 21. Using projection technology as an auxiliary tool in the creative process: The artist's own, hand, computer etc. Transferring the drafts and drawings of the prepared visuals to the canvas and other surfaces with projection or other copy material.

The phenomenon of copying can be examined in seven dimensions according to its purpose:

- Copy for Restoration Purpose: Perhaps it is the most justified reason of using projection and copying techniques. It is the renewal of the work in accordance with the original without damaging by providing exact copying and simulation.
- Copy for Traditional Arts: Altough Copy methods are thought to be compulsory for Traditional Arts, can not be made progress without transformation and development. However, computer programs offer numerous advantages in operations such as symmetry, asymmetry and rapport.
- Master Copies: Trying to learn the painting in academic understanding by experiencing the techniques of color, brush, and composition of the famous painters, usually in the classical period and after, for learning purposes from the masters. There is a reproduction of the pictures here. There are also relatively few copies of comments. These are sometimes humorous and in the style of nazire. Sometimes famous artists also make reference copies to important paintings.
- Imitating the teacher: In the master apprentice relationship or academic environment, it is usually the imitation of the student's teacher. There are four reasons for this: The first is to model and repeat to learn the technique. The second is admiration, the third is: taking refuge in the safe harbor of the accepted and relatively successful style, thus trying to impose himself, and the fourth is trying to compliment the teacher: this is an imitation for profit made without believing. The imitation status also likes sometimes by teacher because the imitations keep alive the origin. This situation, which is somewhat acceptable until it learns, threatens the uniqueness of the student over time.
- Copy for profit: While reproduction (replica-copy) is generally done for learning purposes, reproduction of old paintings for sales purposes has increased. We owe this to projection technologies. Just like the prints can be intervened with the brush technique or it can be painted over the projected image. It seems that a legal regulation has not been made yet. Ethical, cultural, social etc. the results are more frightening. The pictures are not claimed to be original here. Reproduction can also be made to order, and there are galleries in the market that deal with this business. These can be a tool for fraud.
- Copying his own work: Sometimes it is the artist's presenting his old works with little change or the same as a result of the problem of creating, sometimes not being able to risk. The reason for this may be misrepresentation, inability to see the old acceptance and fear of failure. In general, it is expected that a series will not decline after reaching a certain maturity and evolve into a new dimension. In series that have not been fully realized and have not reached maturity, there may be returns.
- Theft imitation: this type of imitation can also be diversified within itself:
- 1. Deliberately imitating an artist is different from being affected and benefiting, plagiarism is partly or almost a copy, but not a reproduction. It is intellectual and technical copying.
- 2. The second imitation for theft and fraud: to try to copy and sell for profit, the picture including his signature of an artist who died or lived. The difference from the idea and technical copy is the claim that the painting is original.
- 3. Another type of theft imitation is self-appropriation. Here, the person copies a piece of work that has not seen



by anybody in another country, in a remote land, but this time he makes his own signature as if he was the creator of the work. It is emerging in a short time today.

Throughout history, copy types have evolved from simple to complex. However, depending on the environment, older copying techniques can also be used.

Copy Types of Technically

- 1. A natural or artificial light source, tracing paper, parchment, sketch paper, etc. Copying with the help of, copying with stamp technique, copying with carbon paper, drilling method and buffering with coal dust.
- 2. Copying based on its original or reflection, reproduction from mirror, direct or square etc. (Figure 2)
- 3. Doing the same by looking so on Imitation by catching understanding of technique and ideas.
- 4. Reproduction with print types photo, offset, digital, and blueprints.
- 5. Copying from the digital image with a graphic tablet again. (Figure 6)
- 6. Sticking adhesive stickers with digital printing and other copy types on the painting surface.
- 7. Transfer prints
- 8. Marufle (marouflé Fr. Mounted. You can use a picture that has been copied on the painting canvas cloth on another surface many times, usually when the previous surface is old, the picture is decoupled and taken to another place.
- 9. Decupe process is to separate or paste only the desired area from within an image. Sometimes it can also be used with photoshop operations.
- 10. Templates prepared with original print types can be in citations prepared from their own creative works as well as quotations belonging to someone else. You can copy many times and repeat the same figure in different contexts. Reuse of sections taken from original prints, creating prints with a surface such as glass, paper and collages, canvas, spray, sponge from negative parts of cut templates or like coloring with a brush.
- 11. With the help of computer, photo, two-dimensional drawings etc. projection or transfer by printing technology
- 12. Transferring and painting 3D ready or designed images, transferring and painting two-dimensional images by transforming them into three dimensions with the help of a computer
- 13. 3D modeling with the help of computer technologies, transferring to a canvas or a surface such as a photoblock
- 14. Copying and printing via three-dimensional printers (products such as figurine relief)
- 15. Re-creation of the work on the surface of canvas, etc. by programming with robotics and printers.





Figure 2 Copying by square



Figure 3 A simple mirroring device that can be used with mobile phone and table





Figure 4 Lightbox

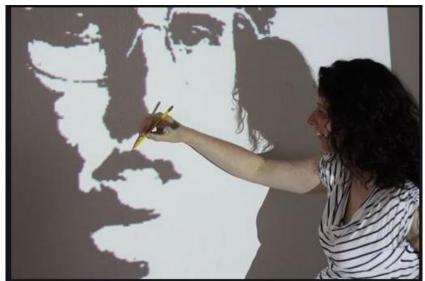


Figure 5 Drawing on the wall with projection



Figure 6 Ceyhun Kocakanat Drawing phase with graphic tablet





Figure 7 Drawscope



Figure 8 Projection





Figure 9 Artograph with mirrored light system inside. The image to be transferred to the canvas is placed under the device



Figure 10 Painting machine capable of automatic three-dimensional printing on the wall

A few ways to use projection, computer and copy materials in painting

- 1. Using the material in a creative way: transforming photos, taking sections, editing composition, making changes on it, creating fiction with methods such as decupe, marufle, photo-montage, painting on it (Figure 12)
- 2. Three-dimensional modeling from live and moving images with a scanning device. Modeling of living and non-living things that actually exist or do not exist. (Figure 11)
- 3. Realization of a scene with creative stage design, fictions and costumes and photographing under studio conditions, transferring and recording the visual record to the canvas.
- 4. Enlarging oneself own sketches or using the same scale mirroring as a painting aid
- 5. Reflecting the photo into painting with brush techniques
- 6. In the programs such as photoshop, acrylic, oil painting, relief etc. by transforming it into a type of technique
- 7. Painting over a picture in programs such as Photoshop on that is similar to other than canvas technique (watercolor etc.).
- 8. Painting in oil painting technique and other techniques of the photograph taken by oneself.
- 9. Reproduction of someone else's picture purpose of transformation or reflection in the same technique by copying
- 10. Copying someone else's picture by using copied by sectioning or transforming, reflecting or looking



- 11. Transferring someone else's photographs with projection, photoshop or classical copying methods with various techniques and converting them into pictures
- 12. Monitoring the reflected image with a device that functions as a projector, which has become the size of a small handheld camera and glasses with new technology. This optic tool, called the drawscope, allows to see the image on the canvas while looking at the object placed next to the canvas (Figure: 7).
- 13. Direct copying on the wall with the help of recently manufactured robots (Figure:10).
- 14. Converting a photograph taken by someone else and using it with classical and modern copying and projection methods by taking various sections.
- 15. Using projection and photography technologies for humor, with an emphasis on their own background and technique. Here, especially computer programs like photoshop are put in the viewer's eye and present a transparent summary of the history of the canvas painting to the audience. (Figure 12)
- 16. Interpretation copies and other humorous copies in the form of Nazire
- 17. Reproduction pictures with computer technology and robotic technology without any human touch. Artificial intelligence products.
- 18. Painting the same image reflected on the existing work for restoration purposes and renewing it according to the original work.



Figure 11 Three-dimensional modeling



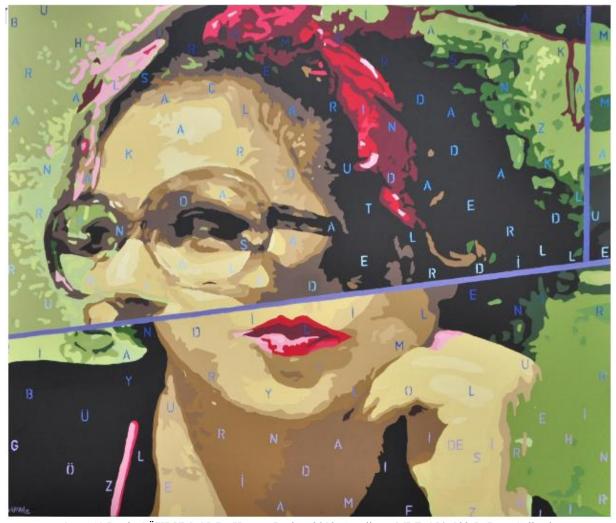


Figure 12 Deniz GÖKDUMAN, Bu Hürrem Başka, 2012, Acrylic on MDF, 154x182,5, Bora Collectio

Effects and Dilemmas of Copy and Projection Technologies

As we mentioned, the invention of the camera in the modern sense, dates back to the second quarter of the 19th century. Photography has been also instrumental in the formation of ideas that support Modernism movements. What was the truth? Was art the reflection of reality and just imitation? What would be the changing, transforming reality? Form change and destruction of classical tradition was defined as modern. But modernism was also gaining momentum towards another dimension. Technology to be easily accessible, entering daily life. Pop Art focused on sections of daily life, appliances that left their mark on the era, innovations, consumer materials, advertisements that left the most traces, product posters, bring visuality to life that inventions such as photography and TV that started to enter everyone's home. Therefore cannot be denied the effect of Pop Art in the transition to Photorealism and Hyperrealism movements.

""When it comes to the 1960s, it is seen that the Hyperrealism movement was quite effective especially in New York and Los Angeles. The starting point of hyperrealism is photography. As it is known, photography has been used as a tool in the art of painting before, but photorealist artists, unlike the artists before them, do not see photography only as a tool, they almost look at the world through photography. Some of the artists working in this style worked from photographs, some of them tried to capture the photoreality by distributing the detail sharpness equally to the whole picture using the slides projected on the canvas." (Gökduman, 2020, s. 12).

There are artists and good examples working in the field of Hyperrealism and Photorealism in the 2000s as well. Ron Mueck is just one of them. (Figure 13)





Figure 13 Ron Mueck A girl 2006. Polyester resin, fibreglass, silicone, synthetic hair, synthetic polymer paint

Artists who tend to these styles today may have other philosophical concerns as well, this is somewhat related to the perception that surprise and shock developed with post-modernism is an aesthetic aspect. The truth is that we are now evolving towards an aesthetic level that will not admire a work, without a solid infrastructure and intellectual ground behind it just because it has acquired a surreal resemblance to the object.

As can be seen, all art has been formed and gained meaning in accordance with the requirements of the age in accordance with social and scientific developments, and today, the easy access of everybody to countless copying devices has brought the art and the art-like an undetectable dimension. These auxiliary tools and techniques have exceeded their intended purpose and have almost become intent. Misuse of technology has brought along many handicaps.

Copying and projection technology creates a range of problems, from technical errors such as incorrect scaling and size change in reproductions to ethical issues that lead to loss of creativity and theft. While it is easier to understand all kinds of copies in today's technology, the phenomenon of copies is still at a level to make the institutions struggle and to mix the art market.

As Temel (2009) has shown, artificial neural networks can also be used to detect art forgery. On the contrary, it may try to replace the artist: as a matter of fact, a painting produced using artificial intelligence and algorithm was first put on sale in 2018. The "Portrait of Edmond Belamy", developed by the Paris-based art collective "Obvious", is the work of a computer algorithm that includes about 15000 portraits produced between the 14th and 20th centuries. It is one of a group portraits of the fictional Belamy family (Figure 14).



Figure 14 The first painting to be sold with the signature of artificial intelligence is "Edmond Belamy's Portrait"



Those who rely on copy styles often start with anxiety of objective realism and want it to be the same If the mimesis proposes to imitation of the ideas world; with the copies that are the imitation of these works, the imitation of the imitation is made vulgar. However, understanding of idealized classical beauty carries soul. Based on the synthesis of living bodies, the Greeks sought an expression of psychophysical beauty, ideal beauty, between body and soul, in which formal beauty and spiritual well-being formed harmony. (Eco, 2006, p. 45).

In the sense of objective realism combined with idealized beauty, emotions are transferred to the work of art through interpretation. However, photographs rarely reflect personality traits and emotions, except for artistic very good photographs. The photo has a dull expression In painting, a character, for example, is reflected in the portrait, while the sum and essence of the character's personality; typical gestures and facial expressions, poses in mind from that character; the whole of expressions that are reflections of personality; summary and a sharp reflection passes to the canvas. This effect becomes more believable and permanent if the pictures are known or if their feelings can be felt and reflected. With the feeling of Einfühlung (empathy), it gains an immortal authenticity. However, the image in an ordinary photograph is not similar to the original as in the picture. It does not pass that feeling as much as a work of art. Let's not fall into the following error here: not every photograph is a work of art, nor is every picture a work of art. The real work of art can pass the emotion to the viewer. Of course, photography can be used, but real painters want to work from the model to the extent possible.

The artist has a memory of a creative process on the canvas. Today, even the originality of the painting is understood through this process: For example, in the phenomenon called pentiment, where the artist transformed his painting, he gave up, erased, spoiled or rearranged the composition: the whole story in the old works, the personal history of the canvas can be brought to light with x-rays and special examinations. Under the perfection of the new projection technique, its soullessness will also be understood through studies.

The technical process, which takes shape on the basis of copy and reproduction by projection, consists of tracing the image and its repetition. This projection painting technique seems to be more suitable for the Restoration Divisions.

Contemporary Art Education, Observations and Applications

One of the events we witnessed in our teaching process is that the students who meet the projection device constantly try to transfer images to their canvases and ask for auxiliary materials for this. In this way, some students want to participate in talent shows. Such talent shows are held around the world, and in some cases, the painter reverses the picture at the last minute and shocks the audience. These images are dropped onto the canvas in advance with the projection device and are quickly completed by the talented painter with the chemical or markings that the distant audience cannot see. It is not always possible to find a live model, to capture the moving image, or to give the desired pose. For this reason, more importance should be given to photography lesson in elective workshops, photography should be handled with all its subtleties. Students should be encouraged to use their photographs in their own painting projects. Of course, there are images that cannot be reached by everyone. Almost everyone benefits from public channels of visual culture. Copyright should be taught to students thoroughly, and ethical discussions should be made about citation, plagiarism and exploitation. While exhibiting their reproductions publicly, they should indicate their painter and copy, and should not accidentally write their names on such paintings. Computer graphics are becoming increasingly important in elective art workshops. Three-dimensional models and modeling programs can be developed here and different poses can be produced and diversified on figures. Again, transfers can be added to the traditional painting and traditional surfaces from here.

Implicit and explicit affirmation of objective realism is equivalent to that of learning the work in proportion to the accuracy of secular reflection, but a false perception occurs among young people. Continuous approval of the photographic reality both in the grading stage in the education process, in the selection process in the competitions, through the media, through the hidden and open norms, and the fact that it was acceptable, inclined the student to the method of painting with projection, which leads the student in an easy and short way and gives good results in a visible way. With the gradual shortening of the Main Art Workshop course at the Faculty of Education, technological aids can be tolerated, especially in reproductions, so that painting can be started immediately. Maybe some art students and prospective artists tend to reflect objective realism. They are going to do this more or less without any tools, whereas this issue, and those who have no tendency and love, or those who are not suitable for this, have followed this trend. A popular discourse among students is: "imitation brings tactics". This is learned, habitual imitation. Each brush stroke has a different sense of meaning and is momentary. Neither time, place, conditions nor people can be the same. Likewise, the tactic that everyone will



develop must be appropriate to their own structure. Learning tactics with copying may be a bit more possible when you face an original production. It is much more possible if you see the lower layers with today's technology. Even so, it is the discourses and actions that hinder the student from finding himself.

Citation sampling in art education developed by Kodaman and Yılmaz (2014) can be considered as a search for a meaningful method in this context. During the teaching of objective realism, the technical process can be comprehended by repetition, with qualified quotations, without falling into the habit of copying. As Yilmaz (2015) stated:

"Individuals who are not directed to think differently, are encouraged to be like others, and therefore cannot take different approaches, always want to be like others, in an effort to emulate others, during their school life; especially the education understanding that they have at an early age, which consists of imitation, copy and template works, has a great impact (p.111-112)."

The projector is not a device produced for reproduction. (Christenson, 2016) as shown by using the projection device in classrooms and workshops: Demonstration and discussion of teacher's works of art in the classroom, observing students' work and development, creating games for teaching concepts, document titles and requirements, sharing daily events, visual There are many ways, such as sharing things that support discussions. We use them as needed.

We take excellent portfolios in the graduate exam evaluation juries. The common feature of these files is that they have excellent drawings and painting. Another common point is that the files are almost the same. When these candidates take the design exam, it is understood that they have low proficiency from their files. They have begun to lose the ability to form a solid pattern, let alone looking at the image, even with mere hand-brain-eye coordination. Our wrong education system may have contributed to this. This is due to photographic work with copy methods. It is predicted that there will be a need for more spontaneity, naturalness, creativity, more authenticity, more stylistic differences.

CONCLUSIONS

The invention of the camera in the modern sense dates back to the second quarter of the 19th century. Although the camera pioneered modernism movements in the point that the refraction of reality and art is nothing but imitation, with the introduction of the camera into daily life and being the chief assistant of the artist, with the Pop Art effect after 1960, movements such as photorealism and hyperrealism, where projection technologies were dominant, came to the fore. While these trends were meaningful in their time and being a pioneer, they deviated from their purpose over time. Today there are countless copying and printing devices based on photography and projection. These auxiliary devices can reproduce different fictions of visual images instead of imagination and put the artist in a vicious circle. It can lead to uniformity and vulgarization. The one reflected from the naked eye or imaginary is immediately distinguished from the viewfinder. Although it can help with learning light-shadow and perspective, it can lead to rely on readiness preparation for areas that require creativity. On the basis of repair, one-to-one resemblance, reproduction, projection copying is more meaningful and beneficial for Restoration sections.

Projection copying is more useful and meaningful for the restoration departments. Altough Copy methods are thought to be compulsory for Traditional Arts, cannot be made progress without transformation and development. However, computer programs offer numerous advantages in operations such as symmetry, asymmetry and rapport.

Just like the spread and misuse of printing and projection technologies threaten mastery and creativity. Although reproduction in the context of copy works at the educational stage, it may have consequences in the long run that will lead to violations of rights and unfair earnings. By repeating an image, at the lowest level, without handbrain-eye coordination, without problem solving and without developing new ideas, in the context of artistic creativity in the student; it will not contribute in the context of mastery. It is clear that projection technologies, especially those used to benefit from the works of others, will harm one's artistic development and the art world. Students should be encouraged to use the visuals theyself produce and develop as much as possible. In this context, photography lesson and computerized design lesson become more important for the main art branch in elective art lessons. They should be encouraged to create different compositions such as traditional drawing, painting, modeling methods leading to three-dimensionality, sketches, drafts and transformations from the photos and videos they use. Digital assistance is only meaningful in the context of developing creativity. Creativity is a process and it can yield positive habit regardless of the stage it is used in education. Studies carried out with copying, computer and projection technology and authentic (original) studies should be



evaluated in a separate track. Techno art and pure art, that is, only art products that come out with artist handcraft and imagination, maybe should be evaluated in separate lanes.

As a country, one of our most important problems is our external dependency and our inability to be productive and creative enough to compete with the world market. The roots of the gradual decrease in the importance given to art and creative thinking and the loss of creativity can be found in educational habits, wrong education and cultural policies. Trying to emphasize creativity and inventiveness, not imitation; We need research and studies that prioritize creativity in arts and education through art. As long as continues the logic of imitating, desire to adopt of something which someone else has labored to produce, we are dependent on outside in every field. What we expect from artist candidates is not to repeat a famous artist in history, but to reflect their own personality. We are curious about their feelings, thoughts and distilleries. We want them to find their own artistic language. Therefore, we support creativity, not copy.

LIST OF FIGURES

Figure 1 The Experimental Historical Camera Obscura

The Experimental Historical Camera Obscura is a research tool for historians of art and science who investigate the 17th-century camera obscura. It was designed and constructed for the Max Planck Institute for the History of Science in Berlin, by Carsten Wirthand Henrik Haak. İn Lefèvre W. (2007). "The Optical Camera Obscura I A Short Exposition" Inside The Camera Obscura – Optics and Art under the Spell of the Projected Image (Edit: Wolfgang Lefèvre) p.10 Picture 4: Berlin: Max Planck Institute for the History of Science.

Figure 2 Copying by square

Sandrine Pelissier 2017 Is using a lightbox cheating? The controversy about using a projector or a lightbox for your paintings in Drawing, Painting Technique, Thoughts

https://paintingdemos.com/is-that-cheating-the-controversy-about-using-a-projector-for-your-paintings/

Picture 3 A simple mirroring device that can be used with mobile phone and tablet

https://tr-m.banggood.com/Drawing-Painting-Sketch-Optical-Mirror-Reflection-Projection-Tracing-Plate-Board-p-1597147.html

Figure 4 Lightbox

Sandrine Pelissier 2017 Is using a lightbox cheating? The controversy about using a projector or a lightbox for your paintings in Drawing, Painting Technique, Thoughts

https://paintingdemos.com/is-that-cheating-the-controversy-about-using-a-projector-for-your-paintings/

Figure 5 Drawing on the wall by projection

Napoleon Dynamite, May 26, 2010 https://www.designmom.com/napoleon-dynamite/

Figure 6 Ceyhun Kocakanat Drawing phase with graphic tablet

"Hiperrealist çizim nasıl yapılır?" https://www.youtube.com/watch?v=nxFV-cxNm30

Figure 7 Copying by Drawscope

https://www.drawscope.com/

Figure 8 Projector

"How to choose the best Projector for art Tracing Masterpieces"

https://www.youtube.com/watch?v=Z8sb96GdGI0

Figure 9 Artograph with mirrored light system inside. The image to be transferred to the canvas is placed under the device https://lachri.com/art-projectors/

Figure 10 Painting machine capable of automatic three-dimensional printing on the wall https://www.youtube.com/watch?v=5bCVX6UJb8s

Figure 11 Üç boyutlu modelleme

https://cadsay.com/3d-modelleme

Figure 12 Deniz GÖKDUMAN, Bu Hürrem Başka, 2012, Acrylic on MDF, 154x182,5, Bora Collection http://www.borakoleksiyonu.com/eser.aspx?isim=DEN%C4%B0Z%20G%C3%96KDUMAN&kimlik=

Figure 13 Ron Mueck A girl 2006. Polyester resin, fibreglass, silicone, synthetic hair, synthetic polymer paint second edition, artist's proof. Scottish National Gallery of Modern Art, Edinburgh, purchased with assistance from The Art Fund 2007. © Ron Mueck courtesy Anthony d'Offay, London. Photo: Antonia Reeve https://christchurchartgallery.org.nz/bulletin/162/the-edge-of-life

Figure 14 The first painting to be sold with the signature of artificial intelligence is "Edmond Belamy's Portrait" Sami Quadri Painting created by an AI 'artist' goes up for auction for the first time and is expected to fetch up to \$10,000For The Daily Mail Published: 08:31 BST, 23 August 2018 | Updated: 12:04 BST, 23 August 2018

https://www.dailymail.co.uk/sciencetech/article-6089693/10-000-painting-created-AI-artist-goes-auction-time.html



REFERENCES

- Alhazen & Smith A. M. (2001). Alhacen's Theory of Visual Perception: A Critical Edition, with English Translation and Commentary, of the First Three Books of Alhacen's De Aspectibus, the Medieval Latin Version of Ibn Al-Haytham's Kitab Al-Manazir, Volume 2 English Translation, Volume 91 Philadelphia: American Philosophical Society for it is transactions Series.
- Benjamin, W. (2005). *Teknik Olarak Yeniden Üretilebilirlik Çağında Sanat Yapıtı*, (G. Sarı Çev.), 1. Basım, İstanbul: Zeplin Kitap
- Christenson M.(2020). "Six Unique Ways to Use Your Projector in the Art Room", *The Art Of Education University Magazine*, 2016. Erişim 28.01.2020. https://theartofeducation.edu/2016/09/16/six-unique-ways-utilize-projector-art-room/.
- Davenport, A. (2000). The History of Photography, Albuquerque, New Mexico: UNM Press
- Eco, U.(2006). Güzelliğin Tarihi, (A. C. Akkoyunlu Çev.), İstanbul: Doğan Kitap,
- Girgin, F. (2018). Çağdaş Sanat ve Yeniden Üretim Alıntı, Öykünme, Kolaj, Taklit, İstanbul: Hayalperest
- Gombrich, E.H. (1951). The Story of Art, New York: Phaidon Publishers Inc.
- Gombrich, E.H. (1998). Sanatın Öyküsü, İstanbul: Remzi Kitabevi
- Gökduman, Ş. G. Marilyn Levine ve Hiperrealist Heykelleri Marilyn Levine and Her Hyperrealist Sculptures, Journal of Arts, Rating Academy, Jornal of Arts, Cilt / Volume 3, Sayı / Issue 1, 2020, pp. 11-18,
- Hockney, D. (2001). Secret Knowledge: Rediscovering the Lost Techniques of the Old Masters, London: Studio Hogendijk, J. P. (2013). Ibn al-Haytham's Completion of the Conics Volume 7, Sources in the History of Mathematics and Physical Sciences 2 New York USA: Springer Science & Business Media,
- Ihde, D. (2008). "Art Precedes Science: or Did the Camera Obscura Invent Modern Science?" Ed.: Schramm, Helmar. Schwarte, Ludger. Lazardzig), *Instruments in Art and Science: On the Architectonics of Cultural Boundaries in the 17th Century* p.383-394. Volume 2, Berlin New York: Walter de Gruyter
- Kodaman L., Yılmaz, M.(2014). "Sanat Yapıtlarından Alıntılamanın Resim Anasanat Atölye Öğrencilerinin Çalışmalarına Etkisi". *Sanat ve Tasarım Dergisi* 1 / 14 (Aralık 2014): 83-101.
- Keleşoğlu B., Uygungöz M.(2014). "Sanat ve Tasarımda Anamorfik Görüntüler" Sanat ve Tasarım Dergisi 7 / 7 (Aralık 2014): 1-18.
- Lefèvre W. (2007). "The Optical Camera Obscura I A Short Exposition" *Inside The Camera Obscura Optics and Art under the Spell of the Projected Image* (Edit: Wolfgang Lefèvre) p.5-13 Berlin: Max Planck Institute for the History of Science,.
- Lindberg, D. C. (1981). *Theories of Vision from Al-kindi to Kepler*, Chicago & London: The University of Chicago Press
- Mulder, A.& Post M. (2000). Book for the Electronic Arts, V2_ publishing, 2000
- Russell, G. A.(2006). "The Emergence Physological Optics", Encyclopedia of the History of Arabic Science 3 Volume Set Edit. Roshdi Rashed, London& New York: Routledge
- Sabra, A. I.(2007). "Alhazen's Optics in Europe: Some Notes on What It Said and What It Did Not Say", p.53-59 *Inside The Camera Obscura Optics and Art under the Spell of the Projected Image* Edit: Wolfgang Lefèvre, Berlin: Max Planck Institute for the History of Science
- Temel, B.(2009). Sanat eserlerinin yapay sinir ağları ile özgünlük tespiti ve ayrıştırılması / Authentication and separation of art works with using artificial neural network, Marmara Üniversitesi / Eğitim Bilimleri Enstitüsü / Güzel Sanatlar Eğitimi Anabilim Dalı / Resim-İş Öğretmenliği Bilim Dalı, Danışman: Prof. Dr. Bünyamin Özgültekin, Doktora tezi,
- Ulukaya, C. (2018) Yapay zeka: Sanatçı mı araç mı? Milliyet 04.11.2018 01:30 | Son Güncellenme: 04.11.2018 01:30 | https://www.milliyet.com.tr/pazar/yapay-zeka-sanatci-mi-arac-mi-2771267
- Vasari, G. (1855). Lives of the Most Eminent Painters, Sculptors, and Architects, London: H. G. Bohn
- Vasari, G. (2013). Sanatçıların Hayat Hikayeleri. (E.Gökteke Çev.) İstanbul:Sel Yayıncılık
- Wenczel, N.(2007). "The Optical Camera Obscura II Images and Texts" (Edit:Wolfgang Lefèvre) p.13-31

 Inside The Camera Obscura Optics and Art under the Spell of the Projected Image Berlin: Max Planck Institute for the History of Science,
- Yılmaz, M.(2015). "Toplumun Sanat Kültürünün Biçimlenmesinde Taklit, Kopya Ve Şablon Çalışmalarla Yetişen Nesillerin Etkisi". Akdeniz Sanat 8 / 15 (Mart 2015):104-112.