Reflections of Technology and Digitalization on Traditional Turkish Arts*

Nazlı KIZILASLAN**
Prof. Dr. Düriye KOZLU İSMAİLOĞLU***

Translator into English: Assoc. Prof. Dr. Koray SEVİNDİ

Translation

Abstract

With the rapid development of computer science and technology, revolutionary changes have occurred in the art field. In today's digital age, traditional artworks are presented to the public as digital art forms. Although this construction concept is still in the developmental stage, digital technologies are widely used in today's art. On the other hand, the artistic interpretation and classification of the resulting products is becoming more and more difficult with each passing day. In this context, the fact that some welcome redesigning traditional arts by using digital data in virtual environments and those who interpret it as a disruptive, destructive, and distracting action in traditional arts reveals new debates. This study aims to address how new artistic approaches are reflected in traditional arts and Turkish arts, particularly at the point where technology and digitalization have arrived. Redesigning traditional arts in digital environments using technological data is important in transferring these arts to the future. This study is a qualitative study limited to the works of Turkish artists interested in digital art, and the data was collected through articles, books, and exhibition designs. By providing definitions, history, and information on the Turkish arts of ebru (marbling), hat (calligraphy), tezhip (illumination), and minyatür (miniature art), the effects of digitalization and technology on these art branches in terms of design are examined through artists and their works.

Keywords: Traditional Art, Technology, Digitalization, Digital Art, Design

Note: As the Journal of Medeniyet Art, we are translating into English some articles that we have published in Turkish in our previous issues and that we think will contribute to English literature. We will especially prioritize articles on Turkish art and the art environment in Türkiye. We hope to contribute to the international recognition of Turkish art and artists.

Sincerely.

Editor: Prof. Dr. Doğan ARSLAN - Assoc. Prof. Dr. Koray SEVİNDİ

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^{**} Eskişehir Osmangazi University, Institute of Social Sciences, Department of Art and Design, Graduate Student, nazl.kzlaslan@gmail.com, ORCID: 0000-0002-2147-9239.

^{***} Eskişehir Osmangazi University, Faculty of Art and Design, duriyekozlu@gmail.com, ORCID: 0000-0002-6965-581X.

Introduction

Throughout history, societies have reflected their feelings and experiences through art and used art as a means of self-expression and communication. Although art progressed monotonously and slowly from the cave period to the Industrial Revolution, technological tools such as the camera invented in the early 19th century and art movements such as "Futurism" that emerged in the 20th century, art has entered a movement within itself. With these, artists no longer only imitated nature but started to produce works by pushing the boundaries of reason intertwined with science. Computer technologies, at the center of digital technologies, have caused radical changes in the production of artworks today. Everything that happens in the physical world has moved to virtual environments, and this process has created a new language of expression for artists and audiences supported by digital technologies. Photographs, sculptures, installation works, various performances, musical performances, animations, virtual reality, augmented reality, roaming networks, the internet, video films, electronic image works, and interactions created with digital images through the virtual world on their own have been indicative of the emergence of unlimited and different approaches in art production.

Today, these developments in the technological field bring new approaches and perspectives to artists. The words of communication scientist Marshall McLuhan, "We shape our tools and instruments, and they shape us in return" (Cited in Altay, 2005: 22), express the transformation process experienced with technology. In this respect, at the point of interaction of art with technology, art is exposed to the ultimate impact of technology, while in some cases, the artist's work affects society and makes an indirect process cyclical. In this process, artistic works performed through mass culture and communication networks have influenced artists and have found the opportunity to quickly reach and address their audiences through interfaces, portals, blogs, and communication networks in digital environments.

Artists engaged in traditional art¹ have gained new designs and different perspectives with the unlimited diversity of the digital environment by utilizing computer technologies as a necessity of the age. When the historical process of "Traditional Turkish Arts" is examined, it is seen that it has been developing for many years depending on the "Turkish Architectural Style"; however, by preserving the logic of an interdisciplinary approach within the book arts, it has also found areas of expression within a transparent framework with intertwined or independent borders.

Today's artists can produce artistic products with drawing and painting software, coding and data programs with powerful features that provide a wide range of imaging possibilities, and tablets and computer hardware that can apply them. Artists can realize their works from a wide range of perspectives, from highly realistic visual effects to abstract compositions, using traditional and digital methods intertwined.

¹ In the context of art, tradition is perceived as a continuous repetition of the past or only as a repetition of the formal elements of past periods. In this context, "The work of art is created in moments when the past merges with the present, is expressed in a new synthesis and flows into the future (Çokokumuş, 2012)". In traditional art, the production of works does not require the repetition of the formal characteristics of a period. On the contrary, it is necessary to produce works by adhering to the principles within today's conditions. It is a misperception to perceive traditional work as only a material or a formal feature. The material is a tool in the creation process of the work. In other words, while the artist feeds from the essence formally and contextually, s/he uses the material as a tool in her/his expression with the conditions of her/his time and, at the same time, adds a part of the moment to her/his work (Çokokumuş, 2012). Therefore, the purpose of the material will lead to illusion.



228

This study aims to address how new artistic approaches are reflected in traditional arts and Turkish arts, particularly at the point where technology and digitalization have arrived. This study is a qualitative study limited to the works of Turkish artists interested in digital art, and the data was collected through articles, books and exhibition designs. By providing definitions, history, and information on the Turkish arts of *ebru* (marbling), *hat* (calligraphy), *tezhip* (illumination), and *minyatür* (miniature art), the effects of digitalization and technology on these art branches in terms of design are examined through artists and their works.

1. Traditional Art, Technology and Digital Art

Since antiquity, nature has been seen as the first source of learning. It was thought that beauty would be achieved by imitating nature itself. As knowledge production and accumulation progressed, as reason, culture, and actions developed, new beauties began to be added to the beauty of nature. For this reason, the ways and forms of expression of the natural beauties around us and the emotions and thoughts they create in human beings have begun to be researched (Ünlü, 2018: 158). Renaissance artists such as Leonardo da Vinci, one of the most important painters of the Renaissance, saw art as a type of knowledge about the universe. In addition, the re-emergence of antiquity's understanding of imitation of nature and the creation of works with the development of scientific techniques such as perspective led to the strengthening of these ideas (Ünlü, 2018: 166).

The Industrial Revolution began in Europe in the 18th and 19th centuries, impacted by the emergence of new inventions in the production phase and the increase in capital accumulation. This process started in England and spread across Europe and the whole world. In the words of historian Gordon Childe (1994: 50), "After the Neolithic Revolution, the second most important development in the history of mankind is the Industrial Revolution." With this view, Childe emphasizes the importance of the Industrial Revolution in world history.

In this period of time, as the effect of the Industrial Revolution on art, the bourgeois class used art as a source of pride, and more money was spent on painting, sculpture, old and new book decorations, music, or theater performances than ever before in history. In this process, with the development of technology, the reproduction of some works of art brought art to a broader audience. The interest of the bourgeois class in portraiture also supported the development of the art of photography. The foundations of new formations were laid in old techniques within the framework of the traditional understanding of art, and copper-engraving copying techniques and reproductions developed with portrait painting were eventually combined with photography, one of the reproduction techniques (Benjamin, 2001: 20).

While the function of art has changed from time to time throughout history, its institutionalization and autonomy have developed under the auspices of aristocracy and political and religious powers. In modern societies, modern art began with the social, cultural, and economic changes caused by the Industrial Revolution. These social transformations and technological developments constituted the main element that determined the function of the work of art and enabled the artist's emancipation and thus began to deviate from tradition with "modernism," which developed a critical attitude towards it (Torun, 2015: 5).

Modernism, emerging in the last quarter of the 19th century, reflected its own unique art forms. According to Jean François Lyotard (1997: 156), modernism is the aesthetics of the industrialized society. In reality, modernism and modern art are an orientation towards an aesthetic object that does not exist in any form but is created in the artist's own world and presented as such. According to Bruce Wands, digital art, a measure of the change in modern art, continues to be prominent in contemporary art. As long as one is familiar with works produced using computer technologies, digital art makes a cultural contribution. With this view, Wands expresses how the concept of digital art, the factors and variables affecting the development of the artistic field in the future, the impact of artworks produced with technological equipment, and the transformations in artistic approaches (Wands, 2006: 14).

Derya Yücel, who considers digital art as a transformation of modern art, expresses this in the following words;

"Contemporary art forms called digital art and new media art are quite different from traditional artworks. The connection between painting and sculpture, which were originally associated with magic and faith, and religion and ritual in the history of Western art, can be traced back to prehistory. As Benjamin argues in his article, the work of art is, first and foremost, an instrument of ritual, and what makes it 'unique' is the act of worship with which it is integrated. Art has gained its unique atmosphere within the realm of representation of ritual, has penetrated tradition through ritual, and has started to transform with this tradition (Yücel, 2012: 4)".

In this context, "New Media Art," which is made by using digital art, computer graphics, new media technologies, computer animations, internet art, interactive art, video games, robotics, and biotechnological art methods, is accepted as a new movement in art and therefore gains meaning through common cultural and artistic goals. Today, these aims are generally the artistic reflection of the "Information Society" or creating options for commercial media. In other words, these expectations represent a return to the avant-garde approach that manifested itself in the early twentieth century with a new look (Manovich, 2001: 22).

Technological developments and the invention of photography in the 1830s paved the way for the dissemination of artworks through reproduction and mass communication. In this way, art spread to large masses and became one of the basic elements of the intellectual paradigm with the formation of art circles. As mentioned earlier, the inseparable connection of art with the intellectual environment also determines the art production mode. In this context, the change in production conditions due to economic and political developments has formed the hierarchy of artistic production from the past to the present. In this way, artistic production takes place in three stages: "Traditional production," which includes the broad historicity of art, represents the first stage. In the 17th century, "mechanical production" can be associated with the changes caused by the mechanical worldview, and in the last stage, "digital production" as a result of the development of technology in our age. Among these classifications, "traditional production" and "mechanical production" are classified as "digital production," including the process that developed with the Industrial Revolution (Paul, 2008: 7).

The industrial developments brought about by industrialization have affected the production of artists in terms of form, content, and application, as in every field of technology. With the development of computers equipped with new technologies and graphic software programs, the first examples of digital art were realized by the American

artist Ben Laposky in 1950 (Figure 1). These works, in which he created black/white optical effects by obtaining electronic images from waveforms, are accepted as the beginning of the "*Op-Art*" movement (Meram, 2013). As a result of the technological developments, the first "Computer Art Exhibition" was opened for the first time at a fair in London in 1968, and thus "Art Products" produced in digital media were accepted as "Works of Art" (Meram, 2013). "Digital Art," which first emerged as 'Computer Art,' later developed as 'Multi-Media Art' and continues developing as 'New Media Art'.

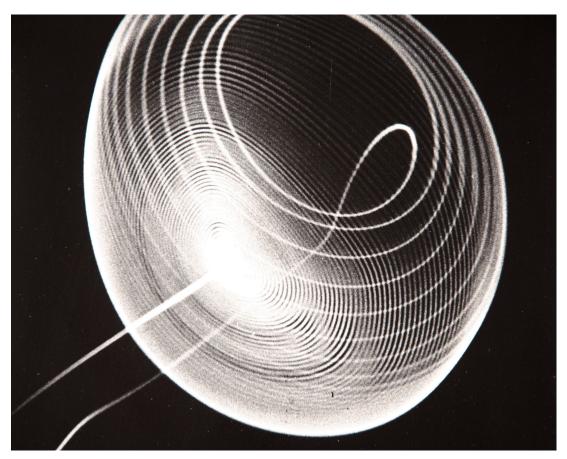


Figure 1. Ben F. Laposky, 1952, Electronic Abstraction Series No: 27, Dsc 8426. Copy (spalterdigital.com).

Manfred Mohr, one of the most important artists of computer art, opened his solo exhibition of computer-generated works at the Museum of Modern Art in Paris in 1971 (Figure 2). This exhibition, which was opened in a museum with works produced entirely in a computer environment, is a first in the field of digital art in the history of art (Mohr, 2002: 112). Mohr stated that through detailed programming analysis, it is possible to visualize logical and abstract models that allow a deeper understanding of the creative process. According to Max Bense, Mohr's work following systematic processes results in a phase that starts with equal probabilities based entirely on randomness but in which the probabilities gradually diminish and disappear with the selection of sure distinctive signs (Spalter, 1999: 21).

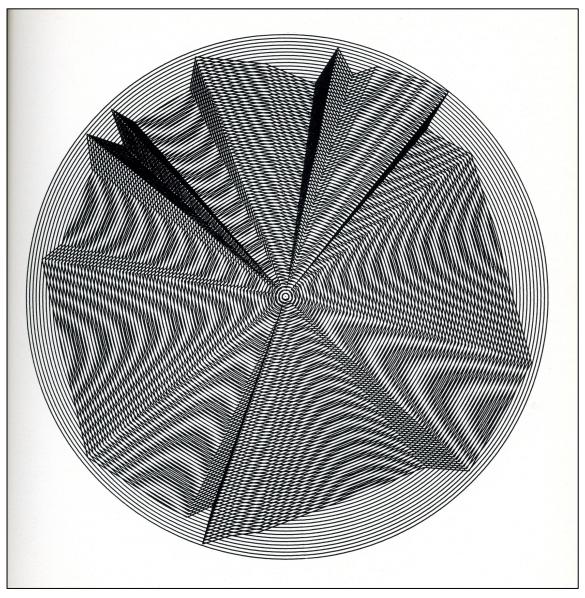


Figure 2. Manfred Mohr, Digital Artwork, Paris Museum of Modern Art, Solo Exhibition, 1971 (emohr.com).

"Digital Art" and 'New Media Art,' among contemporary art forms, are quite different from traditional artworks by nature. Digitalization is the production of a text or an image and the circulation of copies of these productions on information networks. In this context, digitalization can be defined as a technically improved form of reproduction. It is not the digital image or text itself but the image or text file, also known as digital data, that does not lose its similarity in the reproduction and distribution stages. On the other hand, the image file does not consist of material images with a form. The digital image results from visualizing the invisible image file and the invisible digital data. For this reason, a digital image is a form of production that can be staged or performed at any time rather than merely exhibited or distributed copies. At this point, the image begins to function as if it were a piece of music whose notes are different from the notes of the piece, just like a

silent song that cannot be heard and needs to be performed to be listened to. In the process, digitalization has also transformed visual art into performance art in this sense (Groys, 2016: 123).

Digital technology lends itself to countless manipulations, variations, and combinations. When we look at photography, video, and film, it is possible to say that time and space manipulation is always present due to the montage technique. However, digital technology has taken this situation to a serious point. Digital technology has also opened new paths through collage and appropriation, pioneered by Cubists, Dadaists, and Surrealists (Paul, 2008: 27-28). It is obvious that art has entered a modern process with the developing technology. With the assimilation of the art of photography and the development of printing methods, polaroid technology has made digital art an actor in a historical process that can be followed in museums today (Stallabrass, 2013: 112-116). This process has shown that developing technology, different materials produced, and new media elements, although they initially came into conflict in achieving unity in the artistic field, eventually inevitably managed to exist on the same plane.

With the widespread use of digital tools and media, "New Media Art," which has developed differently from traditional arts, has made this field more attractive by making artists' work more straightforward with its possibilities and competencies. In this context, "New Media Art" is not independent of traditional art but imitates the appearance of traditional tools and forms (Nalven and Jarvis, 2005: 8). The concepts intertwined with this approach and understanding are complementary to each other as well as being sources that feed each other artistically.

Digital art differs from traditional art approaches in some ways. This is because digital art is produced with the cooperation of art and science, perhaps in a way that it has never been before, as well as its own distinctive visual language. It should not be surprising that many artists who created digital visual images in this period were scientists. Because in those years, it was very difficult for an artist to access or own a computer, which was not a commercially available product. However, s/he must also have the knowledge and equipment to use that computer. Therefore, the first practitioners of this new art form were either scientists or artists who collaborated with scientists who could use this new technology. Studies in which art and technology were handled together were mainly conducted in universities or large companies' laboratories. It is seen that the collaboration between science and art in the context of digital art has been progressing day by day with the early works. Since the first computer-generated artworks were produced with technically advanced technology, the collaboration between artists and scientists has never been so high in art history.

From this point of view, it is seen that "Digital Images" in digital artworks, in which digital technologies play a decisive role in artistic expression, have turned into a unique visual language with the formatting methods used in visualization. However, considering where digital technologies and image processing methods, software, and programs have reached, the wide variety of digital image technologies and visualization methods makes it difficult to evaluate the visual language created by digital works' technical and structural features in an artistic context.

Accordingly, digital art provides a holistic view of art, artists, and human beings through an interdisciplinary approach. In this context, the artistic approaches created by artists

using digital art methods with common denominators constitute an updated field for artists who use traditional art in their works with different methods.

2. Turkish Artists Reflecting Traditional Forms to Digital

As an artistic element, tradition is perceived as a constant repetition of the old or only as a repetition of the formal elements of past periods. According to Gürkan Alagöz et al. (2018: 179), "The work of art is created in moments when the past merges with the present, is expressed in a new synthesis, and flows into the future." In this context, the production of traditional artworks does not require the repetition of the formal. The perception of the work of art produced using traditional methods as a formal feature shows a wrong style of perception. The material is how the work creates itself at that moment. In other words, while the artist feeds on the essence formally and contextually, s/he uses the material as a tool in the day's conditions and can also add a piece to her/his work from that moment on (Alagöz et al., 2018: 179).

Studies on digital art in Türkiye date back to the 1990s (Sağlamtimur, 2010). Artistic activities, designs, and presentations gathered under the name of digital art are used by transferring them to digital media and gaining currency with the continuation of technological developments. In this context, artists need to master technical equipment to use technological developments in the service of art. However, artists who do not have this equipment can create products by collaborating with experts in the field of computers and software (Akten, 2008). Hamdi Telli, one of these artists, became interested in digital art and photography after graduating from Ankara University's Faculty of Political Sciences. He also taught "Computer Graphics" for the first time in Türkiye at Mimar Sinan University Faculty of Fine Arts between 1987 and 1989 (Turkishpaintings, 2021). Telli has reinterpreted the traces of modern and tradition with the approaches given to him by technological possibilities. The dynamic traces and linear style of traditional art have transformed into an abstract language of expression with color in Telli's works (Figure 3).

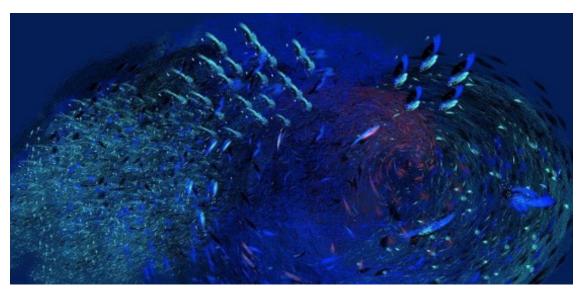


Figure 3. Hamdi Telli, 21st Century Digital Art Exhibition (arttv.com.tr).

Seçkin Pirim, another artist who utilizes the possibilities of the digital world and technology, has preferred to realize his works' drawings in the contemporary sculpture field through digital applications. Pirim has made room for digital and technology in his art in terms of acting faster and more practically in his drawings, minimizing the margin of error, making changes until the desired image is obtained, and achieving perfect cutting in laser cutting devices and saving time. Stating that this working method contributed to his faster professional progress, Seçkin Pirim's early works reflect the duality between nature and culture, while Marcus Graf describes the development and change of Pirim's art over time with the following statements:

"In his works, Seçkin Pirim has found a way to create his language using various methods, such as cubism, futurism, minimalism, and today's three-dimensional computer graphics and product designs. For this reason, his works appear both familiar and unfamiliar. He discusses new aesthetics based on known art and design history. In this way, the artist proposes a new way for sculpture to develop new forms of production that transcend classical reproduction or postmodern eclecticism (Artful Living, 2021)".

In his works, where traces of the art of marbling and Suminagashi can be found, Pirim carries a simple repetition into his creations with an aesthetic dynamism. He designs by reflecting data from various disciplines into the digital medium. In the application phase of the design phase, he separates "Art" and "Craft" in his own words by having expert technical staff develop the software programs (Figure 4).



Figure 4. Seçkin Pirim, Yol-3, Metallic paint mixed technique on Biristol, 158 x 82.6 x 5.1 cm (c24gallery.com).

Refik Anadol, a new media artist, director, designer, and academic whose name has been mentioned recently, realizes his productions through the hybrid relationship of media art and architecture. He is a faculty member of the "UCLA Department of Design and Media Art":

"When we look at today, the public space is supposed to inspire us every day, but right now, we are stuck between undesigned chaos and a race for a place

in this space with the opposite reality. The projects I develop against this situation can sometimes be a permanent digital sculpture work or an audiovisual performance produced simultaneously with a philharmonic orchestra (Aura Istanbul, 2021)."

in his words, he explains his artistic approach.

In "Melting Memories" (2018), one of the most well-known projects that the artist produced by combining science and art, he transformed the moment of remembering into art with light projections and paint in collaboration with artificial intelligence with programs and software written on EGG (a test used to detect brain diseases by showing changes in brain activation) data by participating in research in the field of neuroscience, what can be done with memories, how recall, memory and memories can be symbolized. Another work in Los Angeles is titled "WDCH Dreams Walt Disney Concert Hall Dreams" (2018). He succeeded in transforming the Walt Disney Concert Hall, one of the important buildings designed by the famous architect Frank Gehry, into art by working with artificial intelligence to answer the questions of whether a building can dream and what it would be like if it did. It was created by projecting 100 years of archival data (notes, posters, concert recordings, etc.) of the Los Angeles Philharmonic Orchestra onto the building after working with artificial intelligence (Ark Tera, 2021).

Refik Anadol, who reshapes the boundaries of architectural spaces and public spaces through data and technology, reinterprets the methods of aesthetics, technology and dynamic spatial concepts required by contemporary culture as a new media artist and designer. Seeking unusual spatial experiences using data and machine intelligence as tools in the design phase, Anadol combines "New Media Art" with architectural and spatial concepts, questioning how architectural and spatial possibilities can develop in an environment where non-digital reality is disappearing. According to Anadol, who offers his viewers the opportunity to imagine new functions and alternatives for indoor and outdoor works, all indoor and outdoor spaces are canvases. In his works, Anadol takes humanity's collective experiences, melts them in the crucible of science and art, and presents them to his audience as a new work of art (Figures 5 and 6).



Figure 5. Melting Memories Exhibition, 2018 (bi-ozet.com).

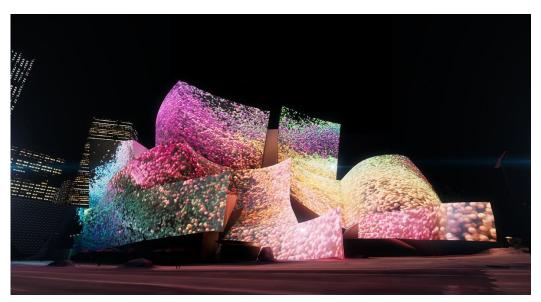


Figure 6. Frank Gehry's Walt Disney Concert Hall (worldarchitecture.org).

While the production process of artworks created with traditional methods takes months, this period is shortened as much as possible with advanced technological tools, sometimes even replacing days with seconds. With the increase and change in the opportunities used, the distance, time, and effort the artist spends to achieve the desired result are reduced. With the spread of technological tools that provide solutions to the artist's problem, the concept of cyber art continues to develop, and it seems inevitable that the production of software and hardware for art will increase rapidly (Türkmenoğlu, 2014: 89).

3. Reflection of Traditional Turkish Arts on Digital Art

"Traditional Turkish Arts," which has maintained its language of expression in itself until today with a refined aesthetic, has a rich and ancient past. The word "tradition" is defined in the dictionary of the Turkish Language Association (TDK, 2020) as "cultural remains, habits, customs, traditions and behaviors that have remained from the past in a society, a community, are respected, transmitted from generation to generation, have sanctioning power." On the other hand, the word traditional can be defined as things connected with tradition. In this context, today's traditional arts have found a wider field of artistic expression by merging with historical and modern phenomena of the modern period with the kneading of art in tradition.

The influence of traditional arts in painting can be seen in many artists and their works. Reflections of modern arts are also seen in traditional arts. In this context, the first performance of "Ebru Art (Marbling Art)," one of the traditional Turkish arts, in a modern sense other than classical methods, started with Hikmet Barutçugil. While Barutçugil was studying at Mimar Sinan University, Faculty of Fine Arts, Department of Textiles, he started to research the art of marbling with the advice of Emin Barın, his teacher at the same university and learned the art of marbling with his own efforts. Performing "Ebru Art" with new forms and disciplines over time, the artist has brought a new perspective

to the art of marbling. The artist, who has opened more than a hundred exhibitions both at home and abroad, produces without putting traditional arts into a mold, being aware of the values they carry in the social sense. Barutçugil frequently states that new areas of interpretation and expression are needed to transfer traditional arts to the future by utilizing today's techniques and opportunities (Barutçugil, 2001).

Barutçugil has realized extraordinary works in this field by redesigning marbling in digital environments, as well as his works in which he uses the art of marbling together with oil painting and watercolor techniques. Painter Erol Deneç's paintings and Barutçugil's marbling works were redesigned with the collage technique in the digital environment and presented to the audience with a different concept (Figure 7). In addition, the series titled "Symmetry" is a design made in digital marbling. These works consist of serial works that obtain symmetrical images of marbling sections in a computer environment (Figure 8) (Ebristan, 2021).

The art of calligraphy, which is applied as an ornamental element in historical and religious places, can be efficiently designed in digital environments with today's technology; painting is done, the process is directed with all stages, including three-dimensional modeling, and offers practical design, and application opportunities to the performer. The art of calligraphy has been reinterpreted with the development of technology and digitalization and has gained different areas of expression. It has been possible to see the art of calligraphy, which has changed in terms of size, content, and functionality, together with many disciplines and applications. Today, due to the multipurpose use of computer programs, calligraphy is frequently used as a graphical design element. In the art of calligraphy, which offers a rich field to the artist in the design process, the infinity of the application area, the variety of materials, and the ability to make new designs by transferring patterns to digital media constitute some of these riches (Figure 9).



Figure 7. Ebru (Marbling) Digital Collage (youtube.com).



Figure 8. Symmetry Ebru (Marbling) Digital Art (ebristan.com).



Figure 9. Erman Yordam, Hilye-Şerif, 35x50, Hat (Calligraphy) (facebook.com).

The change in technical applications in the traditional field, together with digitalization, offers solutions that increase its applicability, especially in the construction phase of art. In dedication to the importance of mathematics and geometry in traditional arts, illumination works applied in the computer environment allow creating a pattern structure with numbers and codes. In addition, one-eighth or one-fourth of a pattern can be drawn by hand, and the rest can be completed with the help of computer software. Some programs used for designs in digital environments are vector-based Corel Draw, Adobe Illustrator, Free Hand, and pixel-based Photoshop (Maktal & Korkmaz, 2019: 48). Figure 10 shows illumination work at the sketch stage. This work can be painted in digital media; in some cases, three-dimensional arrangements can be made by supporting different disciplines.

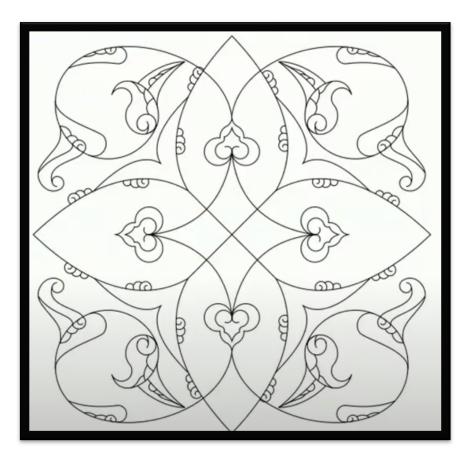


Figure 10. Tezhip (Illumination) Graphic, Youtube Page, Illumination Pattern Drawing in Digital Environment (youtube.com).

Kutluğ Ataman is well-known as a director and artist. His feature films have received awards on international platforms, and he has participated in various biennials and exhibitions with his works on video art. Ataman's exhibition titled "Canlandırılmış Kelimeler (Animated Words)" (2003) consists of presentations created by combining Islamic writing and video art (Figure 11) (Animated, 2021). Ataman is an artist whose works "explore themes such as identity, perception and the multifaceted nature of reality"

(Amirsadeghi, 2010: 86). With his video installation "Animated Words," Kutluğ Ataman animates words using "Islamic Calligraphy." These works include six animated videos that alternate between images and texts (Daftari, 2006: 26).



Figure 11. Kutluğ Ataman, "Animated Words", 2003 [Güzel (No. 1)] (archives.saltresearch.org).

Ataman's Video Art Exhibition "Animated Words" (2003) is shown by mounting LCD panels on the wall in the exhibition area. In this work, Ataman conveys the art of calligraphy and figurative patterns in a pictorial expression. A writing technique called "Müsenna Hat (Musenna Calligraphy)," also known as "Aynalı Hat (Mirror Calligraphy)" is used in work. With this method, Ataman reaches a presentation from the patterns that emerge by centering the symmetry, that is, the axis of the writing. In this video installation series, the caligrams are symmetrically placed on the same plane, rotating around an axis and merging (Figure 11). The work is a set of visual images rather than the meanings of written texts. Therefore, words can only be read and perceived instantaneously in the video (Albayrak, 2012: 17). Images emerge from the rotating caligrams briefly and then disappear. Figure 11 shows the moment when the image of a butterfly appears in the instant caligram in the video. Image and text are, therefore, revealed, concealed, and repeatedly revealed through the rotation of the two calligraphs. In this process, the shapes of the calligraphic forms do not actually transform, but the viewer's perception of them changes. What happens here is the gradual emergence of an identity that is initially hidden from the observer. Thus, as Barbara Brownie (2012: 48) puts it, "The letters themselves (or any other calligraphic form) may not actually change, but the viewer's initial assumptions about the meaning and nature of that form are forced to be transformed." Ataman's "Animated Words" constantly changes the viewer's perception

of the image from text to representational image in a state of motion (Khajavi, 2019: 33). The artist's approach is derived from the "Kaligram" technique within the "Calligraphy" tradition. They are words that form images with hidden shapes or can be understood chiefly with zoomorphic images. Ataman's words turn into a random group of images, sometimes the face of a bearded man, a butterfly, sometimes a tulip. The exhibition can also be interpreted as an aesthetic compromise between Eastern and Western influences. In this context, the icon tradition and figurative images represent Western culture, while the verbal and written images of words represent Eastern cultures (Albayrak, 2012: 28). Therefore, the reproduction and design of "Traditional Calligraphy" in digital environments through computers, the combination of new technologies produced by Western societies and cultural elements of Eastern society, is an aesthetic and cultural bridge between East and West.

"Miniature Art," one of the traditional Turkish arts, is one of the 'Traditional Turkish Arts' contemporary artists frequently utilize. Although the art of miniature shows changes in content and form when we look at the past periods, it is among the traditional arts practiced in every period. In this context, artists who take the art of miniature as a triangulation point and present it to society differently from the figures of popular culture have created a structure that mirrors the criticisms made through social acceptance, customs, and traditions. In M. Fatih Kara's work, an ironic narrative was created by depicting Batman and Spider-Man characters, one of today's movie and cartoon heroes, in the same frame as the Ottoman sultan (Figure 12).



Figure 12. M. Fatih Kara, Batman Receiving an Ijazet from the Sultan (onedio.com).

Murat Palta, who realizes his works are based on Ottoman miniatures, has received training in graphic design, combines his knowledge in graphics with miniature art, and creates works by creating a contemporary language of expression. The common characteristics of today's artists nourished by history are that they produce works with interdisciplinary approaches using many mediums together. With this approach, Murat Palta creates impressive works using digital media and creates a rich language of expression. Palta skillfully incorporates elements of pop culture into his works, bringing cult works of literature and cinema into his designs with various compositions and representations. Palta reflects the experience of the harmonious coexistence of the real and the surreal with the history and rich background of miniature art (Figure 13).

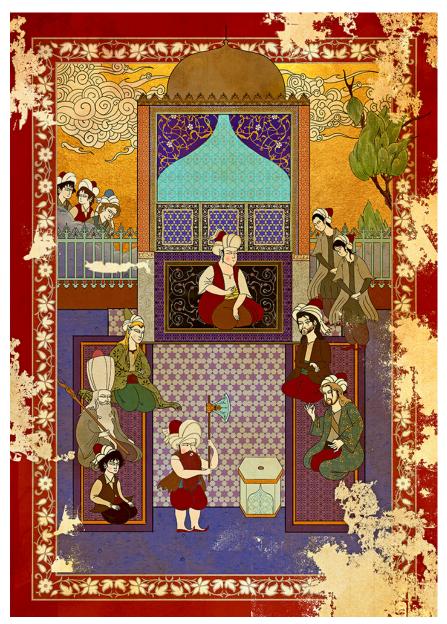


Figure 13. Murat Palta, The Lord of the Rings, 85x60, Print on Paper (plastikart.tumblr.com).

Özgür Demirci's exhibition, Baharistan, is the name of the work of Molla Cami, a 15th-century Sufi scholar. Eight gardens are mentioned in the work. Demirci conveys the traces left by the eight gardens in Molla Cami's work to his viewers by combining his education on classical painting tradition with Eastern mysticism. The artist, whose paintings are dominated by the ornamentalist understanding of Turkish decorative arts, presents his works with caricatured Ottoman characters and fairytale-like narratives to the audience. Özgür Demirci clarifies the relationship between the colors (black, white, green, red) he uses in his artistic search process by saying, "I try to carry out the relationship and contradiction between colors in parallel with the West-East dichotomy in my mind" (Demirci, 2018). Repetition (ulama-raport) in traditional arts is frequently applied in Demirci's works. In his work titled 7th Garden, Demirci reveals the transitivity of art between cultures by referring to "La Danse" (1910) by Henri Matisse, the important representative of the Fauvism movement. The fact that the influences of Traditional Turkish Arts are seen in many of Henri Matisse's works makes the choice in this work more meaningful.



Figure 14. Özgür Demirci, Baharistan Series, 7th Garden, Mixed Technique on Canvas, 200x400 (galeri77.com).

Traces of traditional art can be seen in Canan's works, and she draws attention with her activist stance and feminist discourses in her twenty-five years of artistic life. The themes of her works include current and historical events, fairy tales, mythologies, love, sexuality, marriage, bullying, violence, murder, rape, customs and traditions. The artist presents the female body to the viewer in all its forms. A woman is a lover, wife, mother, and goddess; all these forms are gathered in a single silhouette and reflect the viewer as "Canan." Miniature art has an important place among the sources she feeds on. The artist, who pushes her boundaries in every exhibition with different installation works on digital art and new media art, gives important messages with the names of her works and the techniques and materials she uses. In her works, the artist questions the domination of gender politics on the female body and the areas of power over the female

body and criticizes separatist approaches. Mythology and legends form the basis of many of her works (Yılmaz, 2010: 37).



Figure 15. Vak Vak Ağacı (The Waq Waq Tree), Video Animation, 5/2/6 + 1AP (artsy.net).

The Waq Waq Tree work comes from the 17th-century Vaka-i Vakvakiye, also known as the Çınar Incident (Platanus Incident). It is the name of the event in which bureaucrats and janissaries who wanted to make some arrangements in the army and the state during the reign of Mehmet IV confronted each other, and 40 bureaucrats were hanged from a plane tree in the city square under the pressure of the janissaries. The tree, whose fruit in hell is a human head, has inspired the artist both as a historical reference and mythologically. With this work about the coups in the Turkish Republic, Canan says that she dedicates the work to "all those who were hanged and to my big sister." She presents the historical frames in her work with miniature arrangements and calligraphic elements. Her works are interpreted in a modern style based on traditional lines (Yaman, 2016: 39).

Conclusion

Each work obtained with dematerialized digital images is stored in digital environments as a different work of art. With the dominance of thought over the object, the work has been able to reveal itself without the need for a concrete realization. This is why interfaces, blogs, and portals are preferred in digital art; in this information network, the object is processed so realistically in the virtual environment that it no longer needs a concrete object. At this point, the starting points of artworks are not only nature. The nature that had to be depicted has also disappeared over time because technological developments have already rendered this meaningless. There is now a deep and unlimited space that needs to be filled: the digital environment, also known as the virtual environment.

Art has constantly created new references in developing and changing times. Along with technology, digital technologies have brought artistic and cultural changes in humanity's lives with their eye-catching effect. Everything in the physical world has now moved to this virtual environment. This new language of expression, which consists of data, has been widely adopted thanks to its technical and practicality.

With digital art, digital imaging, photography, digital sculpture, digital installation, performance, music, sound, animation, virtual reality, and augmented reality, internet networks, film, video, and electronic images have also become forms of artistic production with intertwined, interactive environments. Although digital technologies create new forms of expression, concepts such as hybrids, artificial organisms, and artificial intelligence, whose importance is further strengthened by art, have started to occupy artists more frequently. In this way, the artist's researcher personality has also come to the fore.

Thanks to data, more messages are sent and stored for the future in the 21st century. In the formation of these new interpretations and mixed techniques, there is no doubt that the progress of technology, science, and art together at the point where they meet is transferring and developing more information to contemporary discourses. Digital artists are now called the artists of the future.

In the research conducted within the scope of the study, the stages of traditional arts in the historical process were mentioned. The rich infrastructure of traditional arts and the power of influence of its symbolic and formal language passed down from generation to generation, has been transferred to digital media with today's technology and has expanded its usage area with designs. The use of digital technologies in the reinterpretation and application of traditional motifs, floral and geometric ornaments, ancient patterns, and stories not only provides technical convenience but also saves time. As such, digital art applications provide new perspectives to the artist during the works' design, production, and exhibition stages.

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- Figure 8. Symmetry Ebru Digital Artwork (http://www.ebristan.com/index.php?d=galeri&uid=156 / 05.02.2021).
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