

# New Technology Approaches In Exlibris Design: Hologram Case

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## Abstract

Today's technological changes have changed the design application methods and the changing demands of the society. This differentiation also affects the aesthetic and formal approaches in exlibris designs. Human creative intelligence and technology fed each other in every period. With this study, software as a reflection of rapidly developing and changing technologies, effects of hologram on exlibris art, usage patterns, application types; Analysis will be examined by data collection method. It is aimed to encourage the reader and the collector with different technology approaches and to contribute in the context of exlibris production that can be made with new technologies. The appropriateness of content and presentation technologies developed for exlibris design will be examined. The functions of hologram, one of the important technological innovations in the field of design, used in graphic design and its usage possibilities for exlibris design will be examined.

**Keywords:** Exlibris, Graphic Design, Hologram, Technology.

## Introduction

Exlibris, as a visual expression tool, creates a visual reflection of the user's identity, thoughts, dreams and passions. The exlibris should clearly state the name of the owner and be able to refer to the subjective aspects of the person using characteristics that indicate the profession, hobbies or place of residence. With the invention of writing, knowledge became permanent and people wrote articles using the materials of the geography they were in. Exlibris, which is on the first opening page of information sources and books from past to present, has gone through various processes. Although the exlibris has undergone changes, regardless of the period, it has preserved its feature of being a source of information for the person it belongs to.

Exlibris, which is on the first pages of the book as a graphic design product from past to present, is used as an expression of a professional design understanding of its designer. It is an area where the designer reflects his knowledge, skills and approaches to the subject. Exlibris is also renewed in the context of developing technology. With its subjectivity, the exlibris in the book expresses a connection with the book and its reader. When faced with Exlibris, we see more than a seal. Exlibris, which continues to exist in the book, lives with the name of the book owner, perhaps as points about the user's life, or perhaps as a trace of his life.

A well designed exlibris has a distinctive feature from other exlibris. A good design can change the mood of the book. Again, with a well-designed exlibris, a process of creating harmony not only in the introduction but also in the entire book can be a matter of question.

“There are four purposes in the design of a quality book: First, the book is designed to be read and viewed. Second, the book is designed to be sold. Third, the book is designed to be opened, held and transported. Fourth, the book is designed for hiding.” (Becer, 2011: 240-241). The items stated by Emre Becer for a book design are actually one of the emotions felt by the “exlibris”, which is an eclectic but at the same time complementary to the book. Watching, hiding, holding ... For collectors, this situation can be explained in the sense of “owned value”.

Exlibris should make the book attractive for its user and create a sense of belonging. It should attract attention with the visual images in its content, be original and be able to convey the values that belong to the person by clearly reflecting the emotion it wants to convey to its design.

The changing demands of the society or expectations that may occur in the future bring along expectations in the designs put forward. It is seen that today's technological applications and usage methods also affect the aesthetic and formal approaches. Methods such as transformation, design and reproduction of exlibris in the process have caused changes.

In this study, the usage patterns and application types of software and production techniques, which are a reflection of rapidly developing and changing technologies, in the context of the effects of exlibris art will be examined. It is aimed to encourage the reader and the collector with different technology approaches and to contribute in the context of exlibris production that can be made with new technologies. The appropriateness and contribution of the content and presentation technologies developed to exlibris design will be examined. The functions of these software used in graphic design will be mentioned. The similarities and usage possibilities of hologram, which is one of the important technological innovations in the field of design, with exlibris design will be examined.

### **Exlibris in Turkey and in The World**

The first exlibris on paper was made for German Pastor Johannes Knabenberg, known under the pseudonym Iglar (Kirpici), in 1450. The exlibris, which depicts the hedgehog biting the flower in the meadow and the inscription "Hans Iglar can kiss you", was reproduced with wood print (Pektaş, 2019: 38). Exlibris, a property sign that the owner of a book sticks inside the cover, is initially created with copper, steel engraving, etching, wood printing, engraving, linoleum, lithography printing types. With the developing technology, new vehicles have come to the fore. Production types continue with different computer techniques (<http://art-exlibris.net>).

Exlibris related studies in Turkey started with Ex Association in Ankara in 1997. with the support and encouragement in terms of increasing awareness of the important names in Turkey is also one of the pioneers Hasip Pektas. In order to increase and encourage this awareness, it conducts national and international studies in our country, organizes seminars, competitions and workshops.

One of the most important exlibris movements in the world is the "Digital Exlibris Museum". To deliver museum collections to a wider audience over the internet; It was created in 2010 to raise the national and international profile of the museum. According to the wishes and ideas of the owner, the first birthplace of the exlibris design bearing the owner's name and the word exlibris is Germany. The first exlibris design was Hildebrand

Brandenburg's engraving designed in 1470. The first British e-libris design was created for Cardinal Wolsey in 1520. The first exlibris design in France was designed in 1597, the first exlibris design in Italy was designed in 1622 and the first exlibris design in the US states was designed in 1674. (<http://art-exlibris.net>). As a result of the advancement of printing technology since the 16th century, there has been a huge increase in book printing worldwide. The books have diversified in both subject and design (Dalkıran, 2013: 211). Interest in exlibris reached its peak in the Art nouveau period in this context. Today there are approximately 40 exlibris communities around the world. Its members meet every two years at an international congress.

### Reflections of Technology in Exlibris

The graphic design discipline has found solutions to certain communication and production problems that must be constantly addressed in line with developing technologies from the past to the present. The first years of the computer's discovery and the creation of its prototype date back to 1870. Reaching today's computer technology corresponds to 1945. However, CGD Computer-generated design examples started to emerge. Traditional methods have begun to rapidly leave their place to computer supported programs in the face of the speed of technology. From past to present, technology reproduction, flat, stencil and electronic printing methods are tools to accelerate the expression of the artist.

The digital exlibris museum established with a structure that supports this technology: Frederikshavn Art Museum. The museum, which has one of the most important and comprehensive collections of Exlibris art, Hartvig Thomsen, Jensen Tusch, Johny Køhler, Klaus Rödel, P. Th. Albrechtsen also includes Wolfram Körner collections. The Frederikshavn Art Museum aims to develop and promote exlibris art. It is one of the largest collections in the world with approximately 450,000 exlibris (<http://art-exlibris.net>).

In the Frederikshavn Art Museum's collection, when scanning and examination under the title of technology as the effect of technology approaches and reflections, it was found that there were a total of 168 works in the period between 1900-2020.

The first of the sample works under the technology company is the exlibris produced in Belgium, owned by Martin R. Baeyens, which contains technological indicators in the Frederikshavn Art Museum, Klaus Rödel Collection. It runs the year and unknown, measuring 99 x 87 mm. The second example in the Frederikshavn Art Museum, containing technological



Image 1: Martin R. Baeyens, Belgium



**Image 2:** Johannes Johansoo, Estonia, 1965



**Image 3:** Ruslan Vigovsky, Ukraine, 1994



**Image 4:** Rajmund Aszkowski, Poland, 2010

indicators from the Jensen Tusch Collection, was made by Johannes Juhansoo in 1965 in Estonia in wood printing type. Exlibris 92 x 57 mm. It is produced in the size. The third example in the Frederikshavn Art Museum, Klaus Rödel Collection is Ruslan Vigovsky's (CAD) work in Ukraine in 1994 with Computer Aided Design, Technology. Exlibris 141 x 91 mm. ready to measure.

Exlibris, which is in the collection of the Frederikshavn Art Museum, was designed by Rajmund Aszkowski in 2010 in Poland, and was created with the (CGD) Technique. Exlibris is designed in 63x 90 mm. dimensions. The work of the same artist, which is in the collection of the Frederikshavn Art Museum, was created with the Polish design (CGD) technique in 2009, and is designed in 78x 57 mm. dimensions. The exlibris designed for Zhang Zhi You, owned by Hasip Pektaş in the Frederikshavn Art Museum collection, was created with Computer Aided Design (CAD) technique. The dimensions of the work are 123x91 mm. presented as. The work of the artist named Krzysztof Marek Bak, which is in the collection of Frederikshavn Art Museum, was produced in Poland in 2009. The work created with the computer design (CGD) technique is 79 x 67 mm. in size.

When computer aided designs are examined in the context of the effects of the digital transformation experienced; In the Frederikshavn Digital Art Museum collection, there were 14 exlibris works in computer design technique (CGD) between 1990 and 2000, while hundreds of CGD Exlibris works began to take place in the post-2000 period. A positive feedback has been obtained from the reflections of the development of technology.

Today, Europeans are preferred to the density of traditional printmaking techniques by artists, but Poland, Belgium, Ukraine and Turkey, especially a lot of countries in the computer design techniques in performing research with new technologies (CGD) works has been observed to be produced. When the Frederikshavn Digital Art Museum collection was examined under the heading of computer-aided design technique (CAD) in the context of digital productions, it would be 1 between 1980-1990, 8 between 1990-2000, 4 for 2011 and after, and 20 with an unknown date. In total, only 33 exlibris were found. It is estimated that the works with uncertain dates belong to 2011 and later years, also in line with the technology.

When the collection is scanned under the title of CRD / Computer Reproduced Design: Computer replication technique: 19 Exlibris between 2000-2010 and 10 Exlibris in 2011 and beyond, in total 29 exlibris studies were identified.

In the scanning made as print types, it was seen that only 30 works were



**Image 5:** Rajmund Aszkowski, Poland, 2009



**Image 6:** Hasip Pektaş, 2006, Turkey



**Image 7:** Krzysztof Marek Bak, 2009, Poland

found under the title of (P8) Original photograph, hologram technique. However, no hologram technique was found in any of the 30 artifacts found.

Today, Europeans are preferred to the density of traditional printmaking techniques by artists, but Poland, Belgium, Turkey and Ukraine, especially in many countries also conducted research with new technologies (CGD) works on designing on the computer has been observed to be produced.

Exlibris Printing Techniques and Symbols were accepted at the Barcelona International Exlibris Congress of FISAE in 1958, and changes were made in Belgrade and Geneva in April 2000. (Pektaş, aed.org.tr) The codes of the printing types included in the article within the scope of digitalization: CAD / Computer Aided Design / Computer Aided Design; CGD: Computer Generated Design / Computerized design; CRD / Computer Reproduced Design: It is computer replication.

Important applications that will speed up the design processes at this point; There are digital application possibilities that accelerate with software such as Photoshop, Illustrator, ProCreates, Photoshop Mix, Photoshop Fix, PS Express. In addition to these, for color combinations with artificial intelligence propositions that have been used recently; Applications such as khroma.com, colormind.io or fronty.com, fontjoy.com that make suggestions about typefaces accelerate the developments in the field of design.

### **Exlibris and Hologram Relation**

The hologram technique discovered by Dennis Garbor in 1948 has been used in the field of art since the 1960s. With the realization of the non-reproducible feature of hologram technology and its effect on the viewer, holograms are used in many media. The hologram, which is used as an important indicator within the scope of the authenticity of many special and important documents such as paper money, education documents, passports, ID cards, offers a safe way of production. Membership of the International Hologram Manufacturers Association (IHMA) proves that every customized hologram is unique.

Hologram is defined as showing an existing object from different angles with a laser beam. The three-dimensional recording formed by the positive mixing of hologram laser beam waves is technically described as “Wave Boundary Reconstruction”. (mthologram.com) It enables the image consisting of different colors such as red, green, blue, yellow to be seen as a layer. It is determined from different perspectives. The different viewing

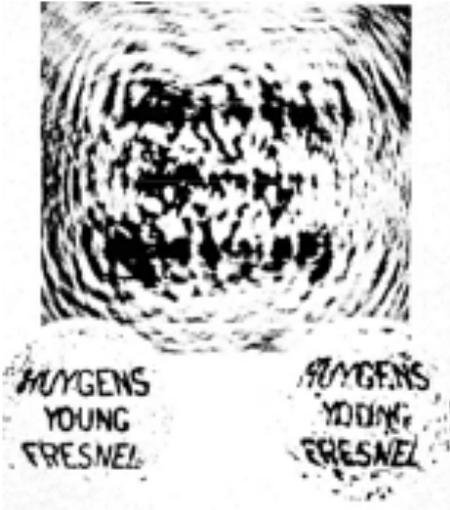


Image 8: Hologram technique discovered by Dennis Garbor in 1948

depth of the hologram puts the design in a different position. Hologram design is basically an illusion; These are reflections of light that convince the eye to see a three-dimensional image.

Holograms can be made from photographs and vector applications designed by Illustrator, Photoshop or other software. The file in Illustrator format provides the most efficient use for separating the design into layers and colors. When design cannot be made with Illustrator, solutions can be produced with Adobe Photoshop file. In order for the text in the image file to be opened without changing the font, it is sufficient to remove it from the text format and convert it to the image format.

There are also many types of holograms for the production and use of Exlibris: The hologram with increased security measure containing serial numbers, pressure sensitive hologram that cannot be removed without damaging the hologram, the hologram that leaves shape when removed, micro text / image hidden holograms that can only be seen with the lens (mthologram.com).

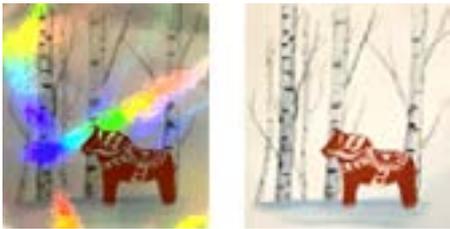


Image 9: Hologram Technique Example (etsy.com)

Exlibris and Hologram meet at a common point in terms of increasing personal credibility in electronic and printed media in the coming years, as well as providing belonging and reputation. In this context, it actually coincides with the exlibris art.

The first and only known hologram Exlibris was designed by Martin Baeyens for Pin Zwiers. Exlibris in the size of a Polaroid picture can only be seen when exposed to direct light. Its plain form appears in black. It consists of a three dimensional pyramid. The volume of the letters is clearly visible. In 1990, only 100 were made with the cooperation of Ghent University and Pierre Bone. It is almost impossible to picture it because it can be viewed when there is light (Ciric, 2014: 14).



Image 10: Personalized Hologram Samples.  
<https://holography.by/en/products/holography/stickers/>

In another example of the reflection of technology by Rastro Ciric, it is a virtual exlibrist, which is the result of a proposition between Benoit Junod and his collection about the absence of exlibris on his computer. When someone turns on the computer, it appears as "Opening Object". The portrait, costume and background that provide information about the owner of the computer are made in Dürer style. It is made both as a reminder of the collection of exlibris of many artists and in opposition to the virtual nature of the image itself. The apple Macintosh logo on Benoit Junod's head and distinctively a reference to the national hero of Sweden, Wilheml Tell. The family crest is shown on the coin (Ciric, 2014: 13).

## Conclusion

Advances in digital art are also reflected in exlibris art. “Will artistic values be lost?” That comes with digitalization in contemporary art. its prejudice and anxiety are also discussed among exlibris artists. Regardless of the technological developments experienced in design, the important thing is that human touch, aesthetic value and sensitivity are transferred to future generations through exlibris. In this context, digitalization of exlibris does not pose any problem.

It is inevitable to produce different productions, designs and works at the point where the possibilities of technology combine with creativity. Digital developments only provide the opportunity to approach different ideas with different methods. This study aims to encourage Exlibris artists to produce new productions and contribute to the graphic design discipline. The important thing is to grasp and apply these possibilities correctly.

Since the beginning of history, the desire of humankind to express itself, from hieroglyph lines to Byzantine mosaics, to the manuscripts of the Middle Ages, whatever the type of technology to be used and presented, the important thing is to take design principles as a basis and to be included in the systems.

Customized designs are now used at every point. When the personalization method in design, which has started to be applied today, is actually considered in the context of exlibris, its origin can be traced back to years ago. Thanks to the electronic books (e-books), which are published online or in electronic media, and the types of publications whose use is rapidly increasing, hologram will perhaps form the new place of exlibris in new electronic fields.

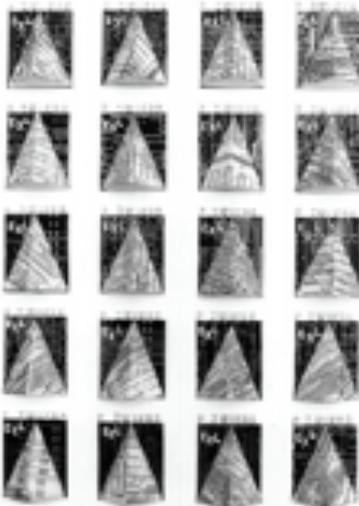


Image 11: The first and only known hologram exlibris, Martin R. Baeyens, Belgium, 1990



Image 12: Virtual Exlibris, Rastko Ciric, Serbia, 1990

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