

# Probe into Application of Book Binding Design from New Media Perspective

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**Abstract:** With the social and economic development and the improvement of the public's aesthetic consciousness, the book binding design has entered a new era. The reading forms of people have undergone tremendous changes. This article starts from the basic overview of book binding, and mainly explores the innovative ideas of book binding design from the perspective of new media. By analyzing the diversity, multidimensionality, interactivity and dynamic of book binding, this paper probes into the advantages of new media in book binding design, and hopes to provide a reference for the development of book design from the perspective of new media through innovative research on this subject.

## 1. Introduction

With the rapid improvement of the economic level, the social life pattern has undergone earth-shaking changes. Under the influence of new media art, modern book binding design has entered a brand-new era. Mechanized printing has replaced manual printing, binding methods and production techniques have become more beautiful and interesting, and reading methods have also undergone tremendous changes. Besides, the format of book binding has changed. Books have shifted from two-dimensional plane to the multi-dimensional, from single to multiple, and from static to dynamic, making people's reading methods more convenient and fast. In this process, people's aesthetic requirements for book binding design begin to gradually increase, and designers have to design books that are in line with the development of the new era through continuous hard work and exploration. Therefore, the innovative exploration of book binding design is of great significance.

## 2. A basic overview of book binding design

Book binding design refers to the process of transforming a book from a text into a book for publication. It includes the thinking and creativity, the systematic design of composition and technology, as well as the design of the book's folio, binding form, cover, paper tapes, etc. Books are an important medium for information transmission, and their basic overview can be divided into three aspects: basic composition, design elements and basic form.

### 2.1 Basic composition of book binding design

Book binding design mainly includes the front cover, envelop, spine, back cover, lining, blank page, information page, title page, preface, postface, catalog, copyright page, inside page and other elements.

### 2.2 Design elements of book binding design

Book binding design elements are mainly composed of text, graphics, color and so on. The text mainly conveys the basic information such as the title of the book, the name of the author and the publisher. The text on the cover is often the focus of the design. The graphics include photography, illustrations and patterns. The style is often divided as being realistic, abstract or freehand, etc. Color is the easiest element to impress the reader. So the color needs to be in line with the content of the book in design, and designers should also pay attention to the use of cold and warm colors. Besides, composition is the key and difficult point in the design process. It is a severe test of the

ability of designers to convey the full content in such a limited space.

### **2.3 Basic forms of book binding design**

There are various binding methods for book binding, and the common ones are scroll binding, accordion binding, whirlwind binding and butterfly-fold binding. Scroll binding is an ancient form of binding in China. The end of the article will be installed on a shaft, and the scroll is around the shaft in order to facilitate the storage of books. The accordion binding is developed from the form of scroll binding, along the text layout of the middle part of the front and back fold to form a rectangle, and on the first page and the last two pages, they are pasted on the wood and hard paper board, and it is more convenient to read through the accordion folding which serves as the most popular form for today's books binding. The whirlwind binding is processed on the basis of the accordion binding. The long paper is used as the bottom. The first page and the last page of the book stick together, and the whole paper at the bottom packs in the first page and the last page as a whole. It looks very similar to the scroll binding from the outside. When it opens, it looks like fish scales arranged in an orderly manner, so it is also called dragonscale binding. The butterfly-fold binding is to fold the printed page from inside to outside, align all the pages with the middle seam as the center, then paste it onto another backing paper, cut neatly and bind it into a book. In this case, when looking through the books, the pages look like the wings of a butterfly.

### **3. Innovative concept of book binding design based on the new media**

Books serve as an effective carrier of information transmission. Under the influence of the new media art, the book binding needs to keep pace with the development of the Times. We need to combine the printing technology with materials and integrate graphics and layout. The designers should also echo the content that the book wants to express with the overall visual sense of the book and then give full consideration to the reader's reading experience. Through doing it, let the reader feel that he is not just reading a book, but endowing the book with a different kind of art. Now the modern book binding is not just for paper books, but for the overall development of the direction of diversification. Designers need to change the old ideas of book design, make new attempts and innovations in it, and pay more attention to the overall design concept of books. In addition, designers should coordinate the balance between the innovation and practicability of book design, and improve the artistic and aesthetic level of book binding design.

#### **3.1 The diversified design of book binding**

New media art has brought fresh new inspiration to book binding design, thus making the book binding cover more elegant and interesting in shape and having more sense of space in content. It is not a single two-dimensional space, but into a three-dimensional one. And the choice of material and craft is more diversified. Concept books are designed and innovated in printing, material selection, binding and packaging. The material may be metal, woven, wooden, or plastic; the form can be three-dimensional, dynamic, and grotesque, which can bring readers a fresh new reading experience. For example, the "mystery book" designed by Anne Petronille Nypels Lab is a book printed with heat-sensitive ink. Only when the words encounter a heat source will the content appear, in combination with elements such as light, electricity and fire. There is also the perfume brochure designed by Irma Boom, a Dutch designer, for Chanel No. 5, which adopts the process of embossing. Words and graphic patterns are engraved on the paper so that people can smell the fragrance of the perfume when browsing. It's not only about the beauty from the visual sense, but also about the sense of smell. In the new media era, designers can freely explore the design structure, material technology and aesthetic trend of art. Besides reading words, people may feel another kind of pleasure. This kind of book binding design is no longer just for a book but more like a work of art itself, which has unique artistic value and creates more possibilities.

#### **3.2 Multi-dimensional design of book binding**

The traditional book binding is mainly based on the two-dimensional design, but under the

influence of the new media art, it begins to change to the multi-dimensional direction. This shift is more embodied in the format design and in the building of a virtual space. The format design takes the form of the cover blank page to create a rich imagination space for the reader while the new media art focuses on adding interesting elements and patterns in the space design, creating a three-dimensional visual effect on a two-dimensional plane, and then making images through electronic devices to display in a more novel way. The multi-dimensional concept is integrated into the book binding design to improve the creativity and innovation of the design. It is worth noting that aesthetic concepts should be unified in all aspects of the design, so that readers can not only obtain new fun and aesthetic enjoyment, but also enjoys immersive reading experience.

### **3.3 Interactive design of book binding**

With the development and promotion of new media art, people's reading methods are no longer limited to paper books, and there are various interactive books emerging such as e-books, pop-up books, concept books, interactive music and scented books. For example, the Japanese designer Tomohiro Watanabe created the pop-up book “*What to Eat Today?*”, which is designed for children and does not use AR technology but can be compared with the 3D effect. By changing the position of hands and the viewing angle of the eyes, you can experience the spatial extension effect. This can play a good role in enlightening young children who need to build spatial thinking ability in daily life. The book *Yamada Octopus King* designed by Mr. Jiang Shen in Japan has a completely different story ending when you are reading it in the dark place and the bright place. This book uses light-storing ink materials in its design, which can gather light together in a dark environment and present shiny fonts. It is a different and special reading experience for readers. This new form under the influence of new media art shows the unique charm of books and makes the content of books more interactive.

### **3.4 Dynamic design of book binding**

With the diversification of information media, the binding design of books in the past was too boring to attract readers. And the dynamic design can largely eliminate this boring reading experience. For example, for the “wearable books”, readers need to put on the sensor before reading, and then these instruments can monitor the readers’ nerves and heart rate of the body and help connect the LED light sensor installed on the book. When the content of books make readers have great emotional fluctuations, LED lights will have corresponding changes to lighten atmosphere. When readers are reading scary content, the chest sensors worn on the readers will contract and cause intense chest pressure, which may create a realistic reading experience and inject freshness and fun into the reading process in different ways. Under this dynamic design concept, the book binding has got rid of the traditional two-dimensional information transmission mode and become more suitable for the development of the new media era.

## **4. The advantages of new media in book binding design**

The effective combination of new media art and book binding improves the artistic quality of books and brings readers a new visual experience and reading fun. Besides, this combination not only improves the viewing of books, but also elevates the functionality of books to a new level. With the rapid development of digital storage technology, the function of books as information carriers in the traditional sense has been gradually replaced. According to the data, since the beginning of the 21st century, the number of printed books, newspapers and publications has gradually declined. How to revitalize the traditional information media has become a problem faced by modern designers. Against the backdrop, the use of new media art can solve this problem well. Different information transmission methods combine with books to produce corresponding changes, which can also make books meet the diversified needs of readers and make books accepted by more readers. This multi-element combination not only enables readers to experience the pleasure of reading but also provides more references for future designers, so that more traditional information media can adapt to the development of the new media era.

## 5. Conclusion

The book binding design needs to keep pace with the development of the Times, and designers should constantly explore new ways to improve the innovative concepts of book binding. Under the influence of new media art, the design forms of books have already become more diversified. However, in the process of exploring the innovative ideas of book design, designers should also fully combine the needs of consumers, understand the mentality of consumers, and promote the diversified, multi-dimensional, interactive and dynamic development of book binding.

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