

VALERIJA HRANKINA

PACKAGING AS ART

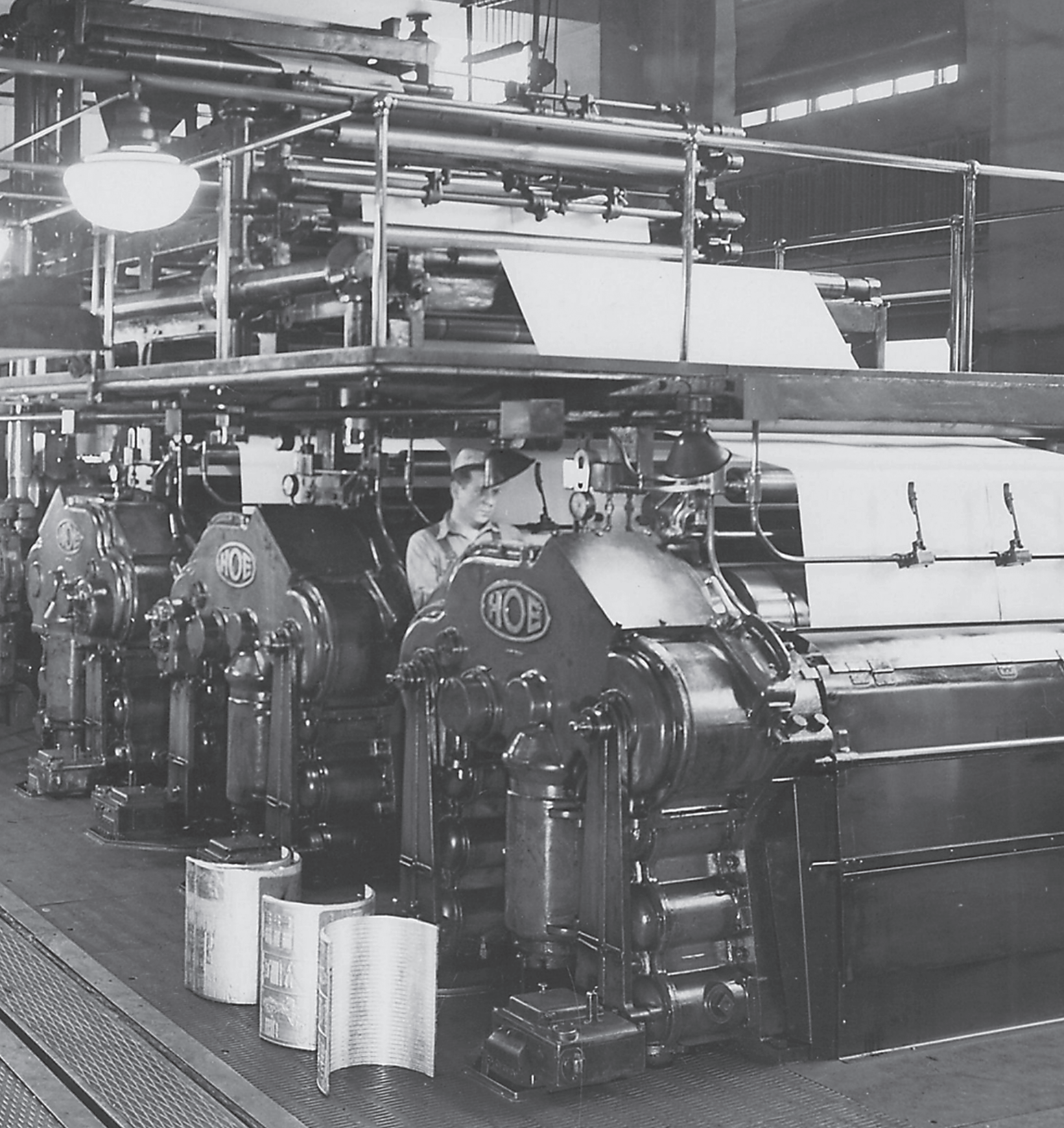




I have always been curious about how an author suddenly decides to dedicate a book to a particular person. What drives this decision, and at what moment do they realize that this very book should be devoted to someone?

I worked on this book for four years, and only during the final stages of layout did I understand: I was writing it for my father. For the person who truly inspired me, who devoted more than 20 years to working with packaging, who (without even realizing it) introduced me to a deep love for printing and design, and who knows so much about packaging that I will always have something to aspire to.

So, my dear dad, I dedicate this book to you - to the person who is always important and always needed.



Part 1

THE ORIGINS OF CARTON PACKAGING

Part 2

THE DEVELOPMENT OF CARTON PACKAGING DESIGN

Part 3

MODERN CARTON PACKAGING

Part 4

THERE ARE THINGS THAT CANNOT BE REPEATED...

PREFACE

*«The appearance of packaging is just as much a salesperson
as any employee of flesh and blood -
and even better, because it works day and night
for the product, emphasizing
only those advantages
that matter to the manufacturer.»
«Packaging is the PRODUCT.”
- Richard B. Franken and Carroll Larrabee
«Package That Sells», 1928.*

We hardly notice that packaging surrounds us everywhere, at all times. Cardboard, metal, plastic... And we have not just become accustomed to it - every one of us, regardless of age, was born, grew up, and now lives in a packaged world. Today, packaging has become so integral to our lives that packaging

has become so familiar to us that it would likely feel far stranger to see any product without packaging than with it. We walk into a pharmacy, a supermarket, or a gas station - and immediately hundreds and thousands of packaged goods begin competing for our attention, striving to make us believe in their promises and choose them over others. Standing in line without a clear list of needed medicines, we may change our mind several times about purchasing a particular cough remedy, for example, when faced with packages from different manufacturers serving the same purpose. The same thing happens in supermarkets. Have you ever noticed how, while waiting at the checkout, your attention is drawn to candies, chocolate bars, and other small items? And how many products do you put into your basket simply because their packaging caught your eye as you passed by? All of this happens almost unnoticed. Packaging design captures our attention and helps us make purchasing decisions more quickly. Recently, I conducted a small personal study together with a marketing specialist I know, Olha Bulbakh. I should note right away: this should not be considered scientifically rigorous. On her Instagram page, Olha posted two photos of frozen chicken Kyiv sold in the same store. In the first photo, the packaging attractively displayed ready-to-eat fried cutlets - both whole and sliced. In the second photo, the same cutlets were from another manufacturer and were packaged in a simple tray wrapped in plastic. The company name and product information were displayed only on a paper label. Olha asked her followers to vote and answer a simple question: which cutlets would they

choose? Logically, one might assume that a buyer would choose the product they can see with their own eyes, rather than one presented through an attractive image. The result surprised me, although I had anticipated it: 89% versus 11% in favor of the product in cardboard packaging. However, I would also like to highlight a comment from one of the participants: «It's just disappointing when you open the box and find that what's inside is nothing like what's shown on the packaging :(»

Indeed, packaging is a powerful weapon in the battle for the consumer, as well as a means of communication. It performs numerous functions and tasks: it protects the contents from contamination and spoilage, facilitates transportation and storage, enhances advertising, and increases brand recognition in the market. Most importantly, it boosts sales and remains memorable to consumers.

The triumph of packaging is part of the broader history of industrialization, economic development, design, and society. Packaging has gradually replaced salespeople and consultants. As research shows, people tend to trust packaging and their own judgment more than they trust sales staff. Packaging can tell the consumer why they need a particular product another product. It has individuality, instills confidence and a sense of trust, helps to sell, and shapes the consumer's perception of the product. Ultimately, packaging is the face of a company.

I belong to that category of people who can be called fortunate for one simple reason: I am in love with what I do. Our company

manufactures cardboard packaging. In my opinion, the main task of packaging is to be able to “communicate” with the consumer. It must serve as a helper. It should stand out through aesthetics, harmony, the beauty of graphics, and thoughtful compositional solutions. It must be pleasing to the eye.

Modern business coaches often speak about one simple yet truly important idea: “go into the field.” In other words, study your consumers and competitors yourself. For me, this is not a challenge, because one of my favorite activities is visiting grocery supermarkets not to shop, but to study and search for the perfect packaging. I carefully examine every package that manages to stop me and capture my attention. For me, packaging is close to art.

Not long ago, I came across a quote that perfectly reflects my perspective - by Louise Fili, an American graphic designer:

«The beauty of packaging design is that it is very easy to study - you just need to go to any supermarket, or better yet, in a grocery store. These are real museums.»

Once, without even noticing, I spent about two and a half hours in a supermarket. I was pulled out of my state of research by a man who had clearly become very interested in what I was doing. He asked:

- «Miss, I’ve been watching you for about half an hour. You walk around the store, pick up products, examine their packaging so carefully from all sides, take photos, put them back, and move on... You don’t even have a shopping cart. To be honest,

*Packaging
as art*

you're a bit unsettling - on the one hand. But on the other, it's incredibly interesting to watch you. What do you do? And are we even supposed to buy all these products?»

You absolutely can - and should - buy them. I simply love packaging, especially when it is created with genuine care - both by the client and the manufacturer.

I have always been fascinated by discovering different facts about the history of cardboard packaging. For example, how did manufacturers come to realize that packaging could help increase sales? How was a product first packaged, and what did that packaging look like? When was it invented, by whom, and how did it happen? And why did such a need arise? I became curious to learn how it evolved over time, how its design changed, and whether packaging design influenced packaging influences product sales? If so, how and why? Unfortunately, the information I was able to find was extremely limited and did not provide answers even to half of my questions. At one point, my curiosity reached its peak, and I decided to explore this topic on my own. I should note right away: this is not a scientific work, but rather a study by someone deeply in love with their craft.

This book will open the door to the history of cardboard packaging, showing how its form and design have evolved, how it became an integral part of marketing, how it has healed - and, unfortunately, sometimes harmed people. Each chapter includes photographs of packaging produced in specific historical periods. You will discover many little-known facts that I uncovered through

the study of printed materials from the early 18th century, as well as unique images of vintage packaging. It was also a revelation for me to learn that many well-known graphic designers worked on creating packaging, and that companies established entire departments responsible for developing advertising materials for it. However, unfortunately, there were not many works in the field of packaging, as from a financial perspective, packaging design was not profitable enough to fully sustain itself or support a company's operations. Designs were typically created once every 2-5 years and then only slightly modified, since consumers do not like getting used to new packaging, and there is always a risk that they are more likely to choose a familiar competitor's packaging. As a result, such departments were initially established, but over time they were often reduced to just one person, who simultaneously worked in other divisions and returned to this task only when new - and rather rare - orders appeared. At the same time, it is worth noting that the packaging created by well-known designers remains recognizable to many of us even today.

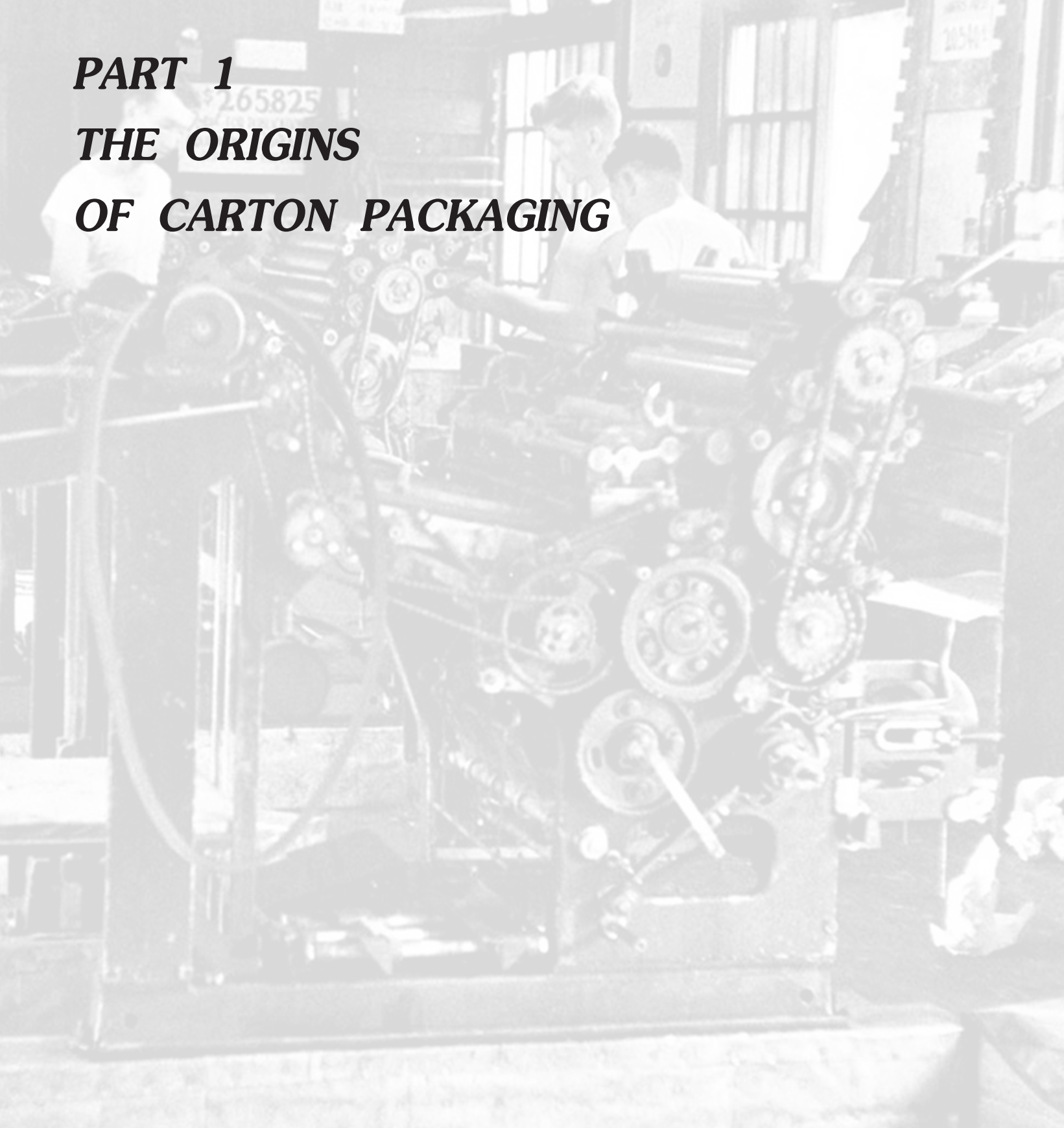
After reading this book, you will gain not only knowledge about the development of cardboard packaging, but also an understanding of what it may become in the future, what requirements are placed upon it today, and what methods exist to meet those demands. You will learn which packaging designs in the history of pharmaceutical carton packaging have been the most effective, and what factors have slowed its development in different countries.

I hope you will enjoy reading this book as much as I enjoyed writing it. Happy reading!

11 Reasons to Read This Book:

1. It describes the history and evolution of cardboard packaging from its origin to the present day.
2. Relaxing while reading a useful book is a great way to spend your time.
3. The best industrial designers have always agreed to work on packaging.
4. This book features photographs of the finest examples of packaging from their time.
5. Thanks to packaging, many brands have remained recognizable from the 1900s to today.
6. Swiss style is the king of packaging design of all time.
7. Examples of the best designs are provided, along with explanations and their historical context.
8. As it turns out, even cocaine once had its own packaging.
9. Where else will you find amusing excerpts from books about treatment methods and packaging?
10. Approximately 30% of the book consists of illustrations.
11. And finally - I spent about three years writing this book and edited it by the sea during my vacation, so there is definitely something valuable here for you :)

PART 1
THE ORIGINS
OF CARTON PACKAGING



THE EMERGENCE OF PHARMACY

Some may be surprised, others may not believe it, but the first pharmacy appeared in the capital of the Arab Caliphate - Baghdad - as early as 754 AD. In the same year, an academy for the study of medicine, pharmacy, and alchemy was also established. Pharmacy rapidly spread throughout other Arab countries. A distinctive feature of Arab culture was its стремление to master and preserve the cultural heritage of previous generations. Medicine and pharmacy were integral parts of scholarly education in the Arab Caliphates. Chemistry began to play a significant role in the development of pharmacy. Arab scholars skillfully prepared pills, pastes, syrups, plasters, aromatic oils, and antidotes.

The first urban pharmacies in Europe appeared only three centuries later, around 1100. However, they were owned by monasteries, and ordinary people had no access to them. As a result, people were forced to prepare their own remedies by collecting and processing plants and minerals.

Another century passed, and the first public city pharmacy opened in Venice. The year 1200 can be considered the beginning of public pharmacy practice in Europe.

By the 19th century, many pharmacies had grown into large pharmaceutical companies. Interestingly, most modern pharmaceutical companies originated in the late 19th and early 20th centuries.

In Ukraine, the first pharmacy appeared in the 13th century

*Packaging
as art*

(1270) in Lviv, at the Church of St. John the Baptist, and operated until 1480. It was not a public institution and served exclusively the needs of the monastery.

The emergence and spread of official pharmacies were largely driven by the plague epidemic in Ukraine. In 1464, the magistrate of Lviv sought assistance in treating the population from a physician from Kraków. Along with him, renowned apothecaries - Vasyl Rusyn, Bartholomew, and Olbrecht - arrived in the city.

In 1490, the first official public pharmacy opened in Lviv, serving all residents of the city without exception. It is worth noting that by 1534, there were already 15 pharmacies in Lviv, which at that time supplied medicines to Poland and Western Europe.

While pharmaceutical practice was developing rapidly in Western Ukraine, knowledge of this craft in Kyiv, however, there is no record of such developments until the 18th century.



Photo 1. Lviv, one of the first pharmacies in Ukraine

It is only known that the first pharmacy appeared there in 1709, and by 1865 the city already had 14 pharmacies.

The first material used by pharmaceutical manufacturers to package their products was glass. Bottles were blown from glass, and they became the earliest form of packaging for medicinal products. Later, manufacturers began to pay increasing attention to paper. However, in those distant times, paper was one of the most expensive materials, as each sheet was handmade until the end of the 18th century. For this reason, only the most valuable goods were wrapped in paper, and medicines were not among them.

Nevertheless, the idea of using paper labels attached to glass bottles had already begun to take shape among merchants. Within just a century, European pharmaceutical manufacturers were widely distributing their products in labeled glass bottles.

The first product in Europe to be wrapped in paper in the 1600s was tobacco. Interestingly, wealthy Europeans often stored tobacco in expensive wooden cabinets designed specifically for this purpose. However, a particularly telling sign of wealth and social status was the storage of that very tobacco in paper packaging.

The first packages - in the modern sense of the word - appeared in London at the end of the 17th century.



Photo 2. Glass bottles for early medicinal products

*Packaging
as art*

These were medicines intended both for the treatment of specific ailments and for general use - often extremely broad. Moreover, some of them were designed not only for humans but also for animals, such as horses and cattle.

Medicinal products were sold in glass bottles with attached labels that resembled advertising posters. In addition to the name of the preparation, the label often included numerous testimonials from people who claimed to have been cured, endorsements from monarchs, doctors, and other prominent figures, as well as a list of illnesses the remedy was said to treat. At the same time, printing was developing rapidly, and pharmacists gained the ability to produce large quantities of labels for their medicines. Literacy among the population remained very low, but it was gradually improving, and buyers were at least partially able to read and understand the pseudo-scientific texts printed on the labels. From a modern perspective, the technology used to produce this

packaging was extremely primitive. The bottles were made by hand-blowing, without the use of molds. Labels were printed using a manual printing press.

It gives the impression that producing the packaging



Photo 3. Advertisement for «Daffy's Elixir»

was far more labor-intensive and expensive than producing the medicinal product itself - whether it was an elixir, ointment, or balm.

The first medicinal brands, such as «Stoughton's Drops,» «Daffy's Elixir,» «British Oil,» and others, were essentially artisanal mixtures. These remedies were developed through trial and error, yet they often relieved pain far more effectively than the medicines of official medical practice.

Please do not judge too harshly, but I have decided to present a short excerpt from one of my favorite authors, Ray Bradbury, from «A Medicine for Melancholy,» where he describes people's attitude toward official medicine and pharmaceuticals in the mid-1700s:

«However, someone in the crowd was already carefully examining Camilla.

- She is ill! - he declared.

- Ah! - Mr. Wilkes nodded cheerfully. - It has begun. The pen, my boy. There you go. Please continue, sir!

- Something is wrong with her, - the man frowned. - She looks unwell.

«Looks unwell...» - Mr. Wilkes wrote it down, then cast a suspicious glance at the speaker.

- Sir? You wouldn't happen to be a physician, would you?

- Yes, sir.

- Just as I thought - I recognized those words! Jamie, take my cane and drive him away. Be off with you, sir - quickly!

The man, however, did not wait. Muttering angrily and

*Packaging
as art*

waving his hands in irritation, he hurried away.

- She is ill, she looks unwell..." Bah! — Mr. Wilkes mocked him, but was forced to stop. A tall, thin woman - like a ghost just risen from the grave - was pointing at Camilla Wilkes.

- Melancholy, - she intoned.

«Melancholy», - Mr. Wilkes eagerly recorded her words.

- Pulmonary edema, - the woman muttered.

«Pulmonary edema», - Mr. Wilkes wrote, beaming with satisfaction.

- Now that is quite another matter! - he murmured to himself.

- A remedy for melancholy is required, - the woman continued softly. - Do you have any mummy powder in the house for preparing medicines? The finest mummies are Egyptian, Arabian, and Libyan - they are very effective for magnetic disorders. Ask the gypsy on Flodden Road. I sell stone parsley, incense for men.

- Flodden Road, stone parsley...

- One moment! - Mr. Wilkes continued writing feverishly.

- ...Magnetic disorders, Pontic valerian... Ah, to hell with it! Young lady, what do you see on my daughter's face?... Well, what is your opinion?

...

- Foolish girl!

- No, father, - Camilla murmured, her eyes suddenly widening.

- Not foolish at all. She saw it. She knows. Oh, Jamie, run after her, make her tell us!

- No, she offered nothing! But the gypsy - just look at this list!

- Yes, father.

...

- I have seen cows with a similar expression in their eyes, - he said. - I managed to cure them with brandy and three fresh eggs. In winter, I myself take this elixir with great benefit to my health...

- My daughter is not a cow, sir!

Thus, traditional remedies relieved pain not because of their medicinal properties, but due to their high alcohol content. That is why relief always came quickly and reliably. For many years, people were aware of their intoxicating effect, yet it seems it was more convenient for them to ignore this fact.

«Daffy's Elixir» was created by a rural pastor, Thomas Daffy, in 1647 and was intended for treating children. Incidentally, this elixir belonged to the group of medicines considered universal panaceas for all ailments. It was generously infused with gin, which made it popular among both children and adults. Here is how Fiona McIntosh described it in her novel «The Tapestry»:

«She was suffering from a cold. Cecilia ran for the elixir and returned with a heavy, far from elegant, murky green bottle sealed with a thick stopper. «Daffy's Elixir», - read the label.»

Gradually, people began using the word «daffy» to refer to an alcoholic drink - gin. While intoxicated, they believed they were under the “healing effect” of the elixir.

Consider also an excerpt from Charles Dickens's «The Adventures of Oliver Twist»:

*Packaging
as art*

«More and more products are being sold in fiercely protected packaging that seems designed to prevent the consumer from actually using them.

Today, we have to practically gnaw our way through the packaging to access almost everything we buy.»

*Dave Barry,
American columnist*

«- The very same that I am obliged to keep in the house for the dear little creatures, to add to Daffy's Elixir when they are unwell, Mr. Bumble, - replied Mrs. Mann, opening the cupboard and taking out a bottle and a glass. - It is gin. I will not deceive you, Mr. Bumble. It is gin.

- You give the children Daffy, Mrs. Mann? - asked Bumble, watching with interest the preparation of the mixture.

- God bless them, yes, I do give it, though it is quite expensive, - replied the caretaker. - You see, sir, I cannot bear to watch them suffer before my eyes.

In reality, however, the elixir was more of a laxative with a high alcohol content. Its composition included anise, cochineal, elecampane, dill, parsley, rhubarb, senna, and Spanish licorice.

Here is another excerpt from William Thackeray's «Vanity Fair»:

«Rushing into the bedroom, she saw Mrs. Sedley secretly pouring Daffy's Elixir into the child's mouth with a teaspoon. At the sight of such an intrusion upon her maternal rights, Amelia – the kindest and gentlest of creatures – trembled with anger. Her cheeks, usually pale, flushed crimson, just as they had when she was twelve. She snatched the child from her mother's arms and seized the bottle from the table, greatly offending the old lady, who stared at her in astonishment, still holding the unfortunate teaspoon.

- I will not have my baby poisoned, Mama! - cried Emmy, her

¹ Daffy's Elixir - a popular children's remedy; the name was later applied to gin (juniper vodka).»

*Packaging
as art*

eyes blazing, as she threw the bottle into the fireplace. Then she clasped the child in her arms and began rocking him.

- Poisoned, Amelia? - said the old lady. - And you dare say that to me?!

- The child shall take no medicine except what Mr. Pestler sends; he assured me that Daffy's Elixir is nothing but poison.».

Sometimes medicines were sold in glass bottles like these without lids; at other times, they were stored in ceramic containers - up until the moment when cardboard packaging for commercial use was invented.

THE FIRST CARTON PACKAGING

The history of pharmaceutical carton packaging dates back to the 18th century - a time when merchants knew nothing about marketing, yet intuitively felt that certain tools could help them sell goods faster and at higher prices. It seems that carton packaging was initially created precisely for this purpose - to help products leave the shelves as quickly as possible. The same medicine packaged in a «carton» (as carton packaging was called at the time) could cost several times more than without it. Carton packaging was highly valued by consumers and was considered a symbol of luxury. It is worth noting that in the 18th century, merchants used carton packaging only for very expensive goods - primarily jewelry and medicines. Therefore, the main buyers of such products were wealthy individuals. Once a medicine was purchased and placed in carton packaging, the social status of the buyer instantly increased in the eyes of society.

Merchants, in turn, having realized how profitable the production of carton packaging



Photo 4. An 18th-century pharmacy

*Packaging
as art*

could be, turned it into a separate craft. However, no one could have imagined how many challenges artisans would have to overcome before carton packaging became truly convenient and easy to produce.

Today, it is hard to imagine that each individual carton package was first drawn according to the size of the medicine bottle, then cut out, and finally assembled entirely by hand. In the 18th century, this was extremely labor-intensive manual work, involving dozens - perhaps even hundreds - of hands. Finished boxes were typically round or oval in shape, since such a flexible material as cardboard was easier to bend than to fold into a square form.

As pharmacists were the first to adopt carton packaging, I will begin my account with packaging and stories related specifically to this field.

For apothecaries, however, enclosing medicines in carton packaging also brought certain difficulties. The boxes were delivered to them already assembled. As a result, merchants had to fill their storage spaces with empty packages intended for medicines. Since storage facilities were usually quite small, these cartons occupied a significant amount of valuable space.

One of the first medicines to have the distinction of being packaged in a beautiful carton box was a remedy for female hysteria known as «Hooper's Pills», which became widely distributed in England in 1743.

«HOOPER'S PILLS»

Apothecary Hooper claimed that his pills were composed of «the finest laxative and anti-hysterical ingredients», formed into pills the size of a small seed. This remedy became quite popular among wealthy English consumers and owed its success to three main reasons:

1. The medicine was patented, which inspired trust and confidence in its effectiveness.
2. Hooper's Pills were said to treat «female hysteria», a condition that, according to the physicians and society of the time, affected every second woman - if not more often. In fact, this «illness» was even considered fashionable to some extent. Therefore, every respectable lady was expected to have such a remedy on her dressing table.
3. These pills were among the first to be packaged in attractive carton packaging.

Advertisements for these female pills in the 1750s proclaimed: «*The finest of all remedies ever created for young women, combating so-called disorders.*». It was also noted that the medicine was not to be used by pregnant women - a warning that, ironically, led to the active use of Hooper's Pills by women who sought to terminate pregnancy. Up until the early 20th century, these pills remained one of the most popular remedies for hysteria and were widely sold in both England and the United States.

The first packaging for Hooper's Pills was made of wood and had an oval shape. The label decorating the box was very simple -



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Photo 5. Carton packaging for «Hooper's Pills», 1743



Photo 6. Carton packaging for «Hooper's Pills», modernized design



Photo 7. Carton packaging for «Hooper's Pills», opened view, 1743

without any illustrations - and contained only the name of the medicine and a reference to its patented status.

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PARTIAL COPY OF ORIGINAL CIRCULAR

John Hooper.
Jos. Hooper.
Benj. Hooper



DR. JOHN HOOPER'S
PILLS

Published by virtue of the King's Royal Letters patent
An Abstract of which is as follows:

GEORGE, R.

GEORGE the Second, by the Grace of God, of Great Britain, France and Ireland King, defender of the faith, &c. To all whom these presents shall come, Greeting. Whereas, our Trusty and well beloved Dr. John Hooper, Man-midwife, late of Reading in the County of Berks, now living in Queen street, Cheapside, London, has represented unto Us, that at a considerable expence, and much Study, for many years, he has at last found out and invented a Medicine, and we being willing to give encouragement to all Arts and Inventions which may be for the public good, know ye therefore that We, of our special grace, certain knowledge and mere Motion have given and granted, and by these presents, for Us, our heirs and successors, do give and grant unto the said John Hooper, his assigns, &c. and such person only as they shall agree with, our special licence, full power, sole privilege, and authority to vend same.

And to the end that the said John Hooper, and his assigns, may have and enjoy the full benefit, sole use and exercise of the said invention, We do by these presents, for Us, our heirs and successors, require and strictly command all and every person and persons, body politic and corporate, and all other subjects whatsoever, of what state quality, degree, name, or condition soever they be, that neither they, nor any of them, either directly or indirectly, do make use, or put in practice, the said invention, or any part of the same, nor make or cause to be made any addition thereunto, or subtraction from the same, whereby to pretend himself or themselves, the inventor or inventors, deviser or devisors thereof, as they will answer their contempt of this our royal command, and further to be answerable to the said John Hooper, or his assigns, according to law, for his or their damages thereby occasioned.

In witness whereof, We have caused these our Letters to be made patent.

Witness

JOHN Archbishop of Canterbury

Each box contains about 40 pills; which is 10 doses, and are sealed up in their directions, with a seal having these words, JN. HOOPER'S PILLS; and around it by THE ROYAL BRAND, the same as in the margin. The price is 25 CENTS a box retail, and no more to be taken by anyone who sells them. The Gold Seals are \$1.00 per box.



DIRECTIONS for their use.

Take two or three pills every night going to bed, from seven years old to fifteen, and those above that age to seventy, are to take three or four after the same manner. They purge very little, and may be taken without any confinement or danger of taking cold; and there is no occasion to drink any other liquor with them than a little liquid to wash them down. And as some persons have an aversion to taking of Pills, those may take them cut in small pieces, mixed in the pulp of an Apple, or dissolved in a little liquid.

Special Notice of the Star Brand Gold Seal Hooper's Pills

This original manner, form and style of putting up each individual box or package of Hooper's Gold Seal Pills, together with the title, has been protected by registration at the Patent Office, in Washington, D. C. These pills were never made in England, but were originated by H. B. Taylor, Druggist, Philadelphia, Pa., U. S. A. Beware of Counterfeits.

There has been such a great demand for Better Pills, that we have been manufacturing for a long time Extra Quality Gold Seal Pills, which give more satisfaction than all other makes, and if they are required, see that you get the extra quality.

Star Brand Gold Seal Pills—Take no other. They contain nothing injurious.

They are more frequently employed by the faculty than any other make of pills, on account of their safety and superior virtues and salutary effects. They are considered better than all the high-priced pills now advertised throughout this country by incompetent persons and vendors. The demand for this brand of pill has been so great in the United States that it has been difficult for chemists to get the genuine article, and it has now become necessary on account of the many counterfeits to change the seal for the better make. Hereafter you will see that the gold seal is on the lid and outside of each box, with the words "Gold Seal" in green on the bottom of the box. The pills are black, of medium size, and are better than the Red or Black Seal. The counterfeits are of various sizes, and some very small. While the regular pills are effective, the stronger pills are used when the others do not have the desired effect.

When these Extra Quality Gold Seal Pills are wanted by the box, send one dollar to any respectable retail chemist in the United States, and he will send them to your address by mail, securely wrapped. As some unknown druggists persists in selling cheap counterfeits, we now advise to order direct from us.

Wholesale by all large medicine warehouses throughout this continent. They are faithfully and especially prepared for H. B. TAYLOR, Druggist, Philadelphia, Pa., U. S. A., Sole Owner of GOLD SEAL HOOPER'S PILLS.

All other makes are counterfeits—insist on having the genuine Gold Seal Pills. They are registered in the U. S. Patent Office.

TAKE NO PILLS STAMPED GOLD SEAL UNLESS IT HAS THE WORDS, REGISTERED IN THE UNITED STATES PATENT OFFICE, WASHINGTON, D. C., ON THE OUTSIDE OF EACH BOX. IF NOT, IT'S A COUNTERFEIT

Owing to the success of the Gold Seal Hooper's Pills, cheap, inferior imitations have appeared. Counterfeiting is misbranding and liable in the law for damages.—H. B. Taylor, Druggist, Phila., Pa., U. S. A., Owner.

Photo 8. Instruction leaflet for «Hooper's Pills», 1743

”

The Pills of Dr. John Hooper
Issued under Royal Patent

George II, by the Grace of God, King of Great Britain, France, and Ireland, Defender of the Faith, extends his respect to all whom the following may concern. Whereas our subject, the well-known Dr. John Hooper, an accoucheur presently residing on Queen Street in Cheapside, London, has presented to us his invention, which required considerable expense of time and resources; And whereas we, desiring to encourage the advancement of art and invention, do hereby grant our support to the said John Hooper; Henceforth, he shall be recognized as a person whose invention is to be trusted without question, and in confirmation of this, he is granted our special license, the exclusive privilege of manufacturing the said medicine, and the full right to sell it.

We consider this patent a gift granted by Us, for Ourselves, Our heirs and successors, and we strictly command and enjoin all persons, both political and otherwise, of whatever rank or designation, that none shall, directly or indirectly, make use of or apply the said invention without authorization; nor shall they introduce or recommend any alterations thereto; nor modify the composition of the medicine in an attempt to present themselves as its inventor or successor. Otherwise, any such person shall bear full responsibility for damages caused to the inventor, as well as for showing disrespect

toward the Royal Decree, in accordance with the Law before the King's Court, and before the aforementioned Dr. John Hooper or his appointed representatives. In confirmation of the above, this patent has been duly issued.

Each box contains approximately 40 pills, comprising 10 doses, and is sealed with a stamp bearing the inscription: "JN. Hooper's Pills"; surrounding the seal is the well-known ROYAL MARK. The retail price of a box is 25 cents, and it may not be sold at any other price. Packaging with a gold seal is priced at 1 dollar per box.

DIRECTIONS FOR USE.

Take two to three pills each evening before going to bed. This dosage is suitable for individuals aged seven to fifteen, while those older (up to seventy years of age) should take the same dose three or four times. The pills are considered safe and may be taken without restriction, even during a cold.

The medicine may be combined with any beverages, except in cases where the intake of liquid is insufficient. And since some people feel a certain aversion to taking pills, they may instead consume them cut into small pieces, mixed with apple pulp, or dissolved in a small amount of liquid.

Special Notice Regarding Hooper's Star Brand Gold Seal

The original method, form, and style of packaging for each individual box or package of Hooper's Gold Seal pills, as well as the name itself, are protected by registration with the Patent Office in Washington, D.C. These pills were never manufactured in England but were produced by H.B. Taylor, Druggist,

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as art*

Philadelphia, PA, USA. Beware of counterfeits.

The demand for higher-quality pills has been so great that we have long been producing superior-grade pills with the Gold Seal, which provide greater satisfaction than all others. If you require this particular medicine, be sure to obtain only our product of the highest quality.

Do not take any additional medicines alongside the Star Brand Gold Seal pills. Our medicine is entirely safe. Our pills are prescribed and used more frequently than those of other manufacturers due to their safety, superior qualities, and healing effect. They are considered of higher quality than all other costly pills currently advertised throughout the country by unqualified individuals and sellers. The demand for our brand of pills in the United States has become so great that more and more counterfeits appear each day. For this reason, we have found it necessary to change the design of our seal.

Going forward, you will notice that the gold seal will be placed both on the exterior and interior of each package, bearing the words «Gold Seal» printed in green.

These pills are black in color, of medium size, and of superior quality compared to those bearing red or black seals on their packaging. Counterfeits come in various sizes, some of them very small. While the standard pills are quite effective, stronger special pills are used in cases where the regular ones do not produce the desired effect.

When you wish to obtain our premium-quality boxes of pills,

request them from any reputable apothecary in the United States and send one dollar. They will dispatch the product to your address by mail in secure packaging. As certain unknown pharmacists continue to sell cheap imitations, we strongly recommend ordering directly from us.

DO NOT USE PILLS WITHOUT THE GOLD SEAL ON THE BOTTOM OF THE BOX UNLESS THEY ARE REGISTERED WITH THE UNITED STATES PATENT OFFICE, WASHINGTON. If the seal is absent, it is a counterfeit.

”

«In the years that followed, I helped run a small design agency, where my specialty was creating wrapper designs for Wall's Ice Cream lollies. Many of my works can still be found today in trash bins across the UK and Europe.»

*Piers Baker,
British cartoonist*

«Turlington's Balsam of Life»

The story behind the packaging of Turlington's Balsam of Life is no less remarkable than that of the previously mentioned remedies.

In 1744, Robert Turlington, a merchant from Lombard Street in London, obtained a patent for a «special balsam», called «the Balsam of Life.» The medicine contained no fewer than 27 ingredients, and in his patent, Turlington claimed that the balsam gently expelled stones from the bladder and kidneys, relieved colic, and treated internal weakness. In his pamphlet, which consisted of 46 pages, he «briefly» described the effects of the balsam, ultimately presenting it as a «remedy for every disease». The leaflet in which the Balsam of Life was wrapped included the following warning: «Take heed, for with each bottle of balsam you acquire, your confidence grows ever stronger. Signed by Robert Turlington, holder of the patent, ensuring that every bottle is genuine and nothing less.»



Photo 9. Bottles of various sizes for Robert Turlington's medicine, 1754

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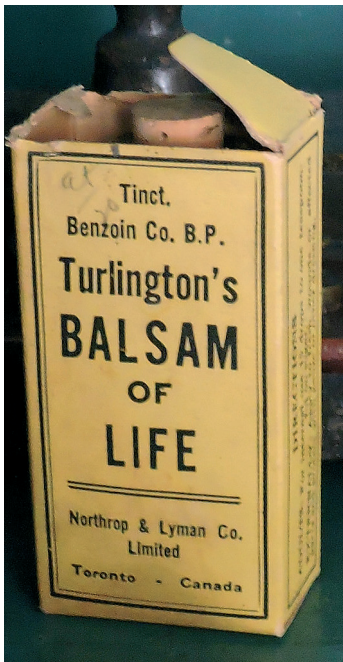


Photo 10. Carton packaging for Robert Turlington's medicine, 1900s

During the 17th and 18th centuries, manufacturers of patented medicines began to use packaging as a means of differentiating their products from those of competitors, as the bottles themselves often appeared indistinguishable. In the case of Robert Turlington, this led to him changing the design of his bottle four times over the course of ten years. None of the bottles bore a label with the name of the balsam. Instead, the differentiation was achieved through the distinctive shape of the bottles themselves, which were blown with inscriptions already embedded in the glass - including the name and an indication that the balsam was protected by patent. The bottle used for the balsam was considered one of the most refined of its time.

As the product rapidly gained popularity in both England and the American colonies, and as packaging became increasingly desirable to consumers - serving as an indicator of a product's success - Turlington eventually complemented his design by placing the Balsam of Life in carton packaging, which reflected the elegance of the bottle itself.

At first, only patented medicines were packaged in this way. However, despite patents and persuasive claims, many of these remedies concealed serious - even deadly - dangers. One of the most notorious examples in history was «Swaim's Panacea». This medicine was also regarded as one of the most beautifully packaged, thanks to its label design, as well as the creativity and novelty of its presentation of the bottle itself, into which the remedy was poured.

However, the story of Swaim is quite extensive, and I would like

to explore it in greater detail later. For now, allow me to illustrate, using the example of «Stoughton's Drops», how easily counterfeit products spread - often aided simply by the presence of packaging.

«Stoughton's Elixir»

In the 1700s, not only were alcohol-based medicines widely produced - many of which did not cure illnesses but instead accustomed people to alcohol - but there was also a growing number of fraudsters manufacturing counterfeit products. These remedies were often made from the simplest and, at times, harmful ingredients, yet even these were frequently substituted with something even more dangerous. Manufacturers of medicines attempted to combat this problem by spreading information about counterfeits. However, such efforts often had little effect on consumers. Moreover, it was difficult to control the situation when production and distribution were taking place in distant parts of the country.

Following an extensive advertising campaign in well-known local newspapers in 1754, an enterprising apothecary - much like many others of that time - placed an order for 1,700 bottles identical in design to Stoughton's Drops from an English glass manufacturer. An order was also placed with a local printing house for the same



¹ *This medicine was recommended for use by both adults and children, including infants. Later, the patent for this remedy - claimed to cure all rheumatic and chronic diseases, as well as influenza and colds - was sold to an entrepreneur whose identity is now unknown.*

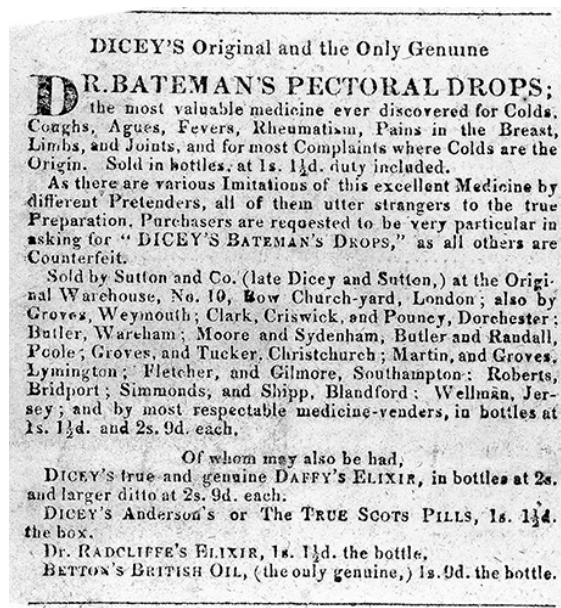


Photo 11. Newspaper advertisement for «Dr. Bateman's Chest Drops», 1754

number of packages with labels for a patented medicine «for chest and lung diseases», marketed under the names «Dr. Bateman's Pectoral Drops», «Original Bateman's Drops», or «Bateman's and Stoughton's Drops».

As later became known, the actual medicine that was supposed to be filled into these bottles had neither been ordered nor purchased. Instead, the bottles were filled with something else - possibly a substance resembling the original drops in composition. The formula of this remedy was, in fact, quite simple: opium and camphor. A small amount of catechu, along with anise flavoring and coloring, gave the medicine a pleasant aroma for oral use - which, it would seem, was already excessive. All 1,700 bottles of the remedy for bronchial and lung diseases were released for sale, and

not a single complaint was recorded - neither about the opium nor the camphor.

Today, knowing the composition and the level of medical expertise of that time, we may assume that the substance inside the bottles was no worse than the patented remedy. As a result, it «cured» all ailments simply because it bore an official mark on its packaging. It is worth noting that this case illustrates, better than anything else, the importance of packaging in product sales even at that time. The product itself and its supposed miraculous properties were not the key factor - the packaging was. It was the packaging that sold the product. In the minds of consumers, the packaging itself became the true product.

For the sake of fairness, it should be mentioned that in 1759, the «owners of the medicine» won a case against a certain Thomas Jackson for counterfeiting and distributing the product. Incidentally, the word «Stoughton» became firmly embedded in the English language. In the 19th century, a person who behaved sluggishly, slowly, and without initiative might be described as «sitting like a bottle of Stoughton's». This expression likely originated from the effects of the remedy, which was based on opium.

By the late 1800s, pharmaceutical manufacturers increasingly began to use labels placed on bottles containing medicinal preparations. Interestingly, labels often carried warnings such as: «Poison. Shake well before use. For external use only». Or: «Warning: keep out of reach of children». Dr. Alfred B. Taylor of Philadelphia, who practiced at the time, wrote in his letters

*Packaging
as art*

that he frequently encountered patients «who asked what exactly they were supposed to shake - the bottle or themselves before taking the medicine». As a result, Taylor began adding the instruction: «Shake the medicine before use».

Labels were applied to boxes primarily for decorative purposes, to indicate the name of the preparation, and more rarely — to include a physician's prescription. They also provided manufacturers with an opportunity to advertise their products or their brand. Labels were printed on plain sheets of paper, but each one had to be cut out by hand by apothecaries and pharmacists. Alternatively, labels were rolled into reels, from which they could be cut individually. In 1858, the company Phair and Company of New York City - one of the first to produce labels - announced that it had begun printing labels using a newly invented machine capable of both printing and cutting them simultaneously. These labels, however, were largely blank, without unique design or printed information, and pharmacists still had to fill in the usage details by hand.

The invention of the typewriter by Remington in 1874 took a surprisingly long time to be fully appreciated by pharmacists. It took several decades before its advantages were widely recognized. However, by the beginning of the 20th century, nearly all labels and tags were being prepared using pharmacists' typewriters.

Speaking of labels and 19th-century pharmacists, it is worth mentioning another important invention of pharmacy - one that today can likely be found in the home of every housewife and bachelor around the world: ketchup.

Essence Anise.
 Dose.—Adults, one teaspoonful in sweetened water. Children in proportion to age.
COLONIAL PHARMACY,
 348 Washington Street, - Dorchester, Mass.

BORAX
 ABRION LEVIN, REG. PHARM.
HAMPDEN PHARMACY
 693 STATE, COR. HANCOCK ST. SPRINGFIELD, MASS.

SYRUP
COLONIAL PHARMACY,
 348 Washington Street,
 DORCHESTER, - MASS.

Essence Anise.
 Dose.—Adults, one teaspoonful in sweetened water. Children in proportion to age.
COLONIAL PHARMACY,
 348 Washington Street, - Dorchester, Mass.

CARRON OIL
 LINSEED OIL AND LIME WATER.
 ABRION LEVIN, REG. PHARM.
HAMPDEN PHARMACY
 693 STATE, COR. HANCOCK ST. SPRINGFIELD, MASS.

CHALK MIXTURE, SHAKE WELL
 Dose.—For a child 4 to 6 months old, half a teaspoonful; from 1 to 2 years, a teaspoonful; adults, a tablespoonful; to be repeated every 2 or 3 hours until relieved.
COLONIAL PHARMACY,
 348 Washington Street, - Dorchester, Mass.

SYRUP
COLONIAL PHARMACY,
 348 Washington Street,
 DORCHESTER, - MASS.

Lime Water
 Dose.—For adults, one teaspoonful. Children from one to two teaspoonfuls in a little milk. For sick stomach to be repeated after each effort to vomit.
HARWOOD'S DRUG STORE
 MULLAN *The Rexall Store* IDAHO

SULPHUR
 ABRION LEVIN, REG. PHARM.
HAMPDEN PHARMACY
 693 STATE, COR. HANCOCK ST. SPRINGFIELD, MASS.

Syrup of
COLONIAL PHARMACY
 348 Washington St., Dorchester, Mass.

CHALK MIXTURE, SHAKE WELL
 Dose.—For a child 4 to 6 months old, half a teaspoonful; from 1 to 2 years, a teaspoonful; adults, a tablespoonful; to be repeated every 2 or 3 hours until relieved.
COLONIAL PHARMACY,
 348 Washington Street, - Dorchester, Mass.

Alcohol U.S.P.
 190 PROOF
 Sold for Medical, Mechanical and Chemical Purposes Only
ADAMS DRUG STORE
 A. P. EGLIN, REG. PHARM.
 614 PAGE BLVD., EAST SPRINGFIELD, MASS.

EFFERVESCENT SOLUTION OF
CITRATE OF MAGNESIA
 MADE OF PURE CITRIC ACID AND CARBONATE OF MAGNESIA
 ACCORDING TO THE U.S. PHARMACOPŒIA.
 The Contents of this Bottle is a full purgative dose. For Children from a
 tablespoonful to a wineglassful may be given and repeated if desired.

Prepared at
 the Laboratory of

W.C. WILSON
DRUGGIST
 1659 HARRISON AVE. BUTTE
 PHONE 2581

Photo 12. Early pharmaceutical labels

in combination with other ingredients - particularly in the treatment of diarrhea, digestive disorders, and other intestinal ailments. Later, Dr. John Cook Bennett published his first medicinal recipes based on tomatoes. A decade afterward, he was condemned by society and excommunicated from the church for adultery. However, modern sources suggest that the true reason for this was quite different: he was accused of exploiting his status as a physician and his perceived connection to God to seduce women. John Cook Bennett claimed that he could easily terminate pregnancy by administering a medicine of his own invention.



Photo 14. Dr. John Cook Bennett

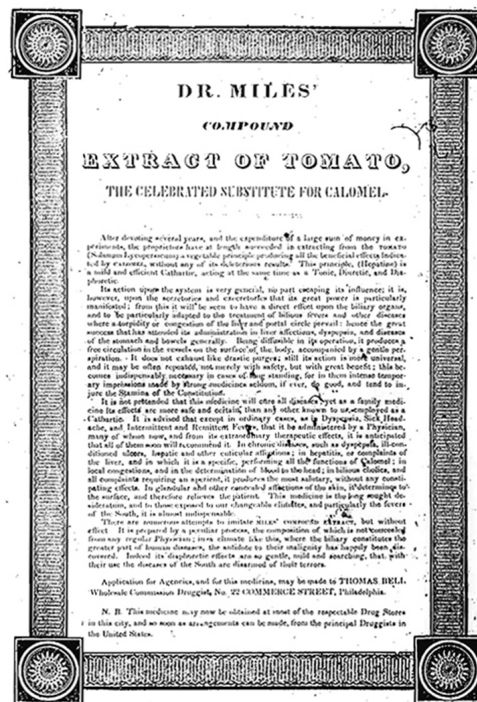
But let us return to ketchup. Three years later, Archibald Miles introduced his patented medicine in tablet form under the name «American Hygienic Pill». Of course, such a name did little to boost the product's sales. After considerable time and effort, the medicine was rebranded as «Dr. Miles's Compound Tomato Extract». At the same time, a colored label for the bottle and a promotional certificate-style advertisement were developed. However, all these efforts proved unsuccessful.

What is particularly interesting is that this medicine was, in fact, effective and did not contain harmful substances or opium. Yet it failed to gain consumer trust, largely because the «doctor» behind it was not perceived as a legitimate physician - for reasons that remain unclear today. For consumers, it was far more important to see the packaging, patents, and images of doctors on the product itself than to understand its composition or actual effects. Even at that time, packaging played a crucial role in both

*Packaging
as art*

sales and advertising. As we can see, it had already become the true «salesperson». Skilled «marketers» were successfully selling their products - not the physicians.

Patented products of that era, along with images of doctors, captured the public imagination. Some manufacturers resorted to every possible trick to boost their sales. Through newspaper interviews, «respectable doctors» would claim that they no longer prescribed patented medicines to their patients - though certainly not because of any negative effects. The reason for this was the decline in the number of patients seeking their services, as well as the fact that patented medicines were effectively depriving doctors of their work. The argument was simple: if physicians continued to prescribe a



1837 Advertising Circular

Photo 15. Advertisement for «Tomato Extract», 1837



Photo 16. Label for «Tomato Extract», 1830s

Packaging
as art

specific remedy (its name was always explicitly mentioned), patients would begin treating themselves without the assistance of medical professionals.

In 1837, the American industrialist Jonas Yerkes became acquainted with Dr. Miles's recipes and introduced his own product to the market - ketchup. It must be noted that, due to poor sanitary conditions during its production, this product was, in many cases, literally dangerous and even fatal for consumers. Nevertheless, it remained on store shelves for nearly 40 years, until the appearance of a new, more palatable ketchup produced by Heinz - sold in a transparent bottle with labels strikingly similar to those used on Dr. Miles's medicinal products.



Photo 17. Heinz Ketchup

*Packaging
as art*

Returning to the story I briefly mentioned earlier and promised to elaborate on.

In 1822, William Swaim, an entrepreneur with a keen understanding of marketing, commissioned a renowned wood engraver to create an illustration based on the mythological scene of Hercules slaying the Hydra. This engraving was intended to serve as the emblem for his product - «Swaim's Panacea». Like Daffy's Elixir, his remedy was promoted as a cure for virtually any ailment.

William Swaim went further than any of his predecessors by publishing a book recounting how a certain Nancy Linton had been cured of a severe illness thanks to his medicine. In this book, he подробно described the remedy, its effects, and compiled glowing testimonials from physicians as well as from other individuals

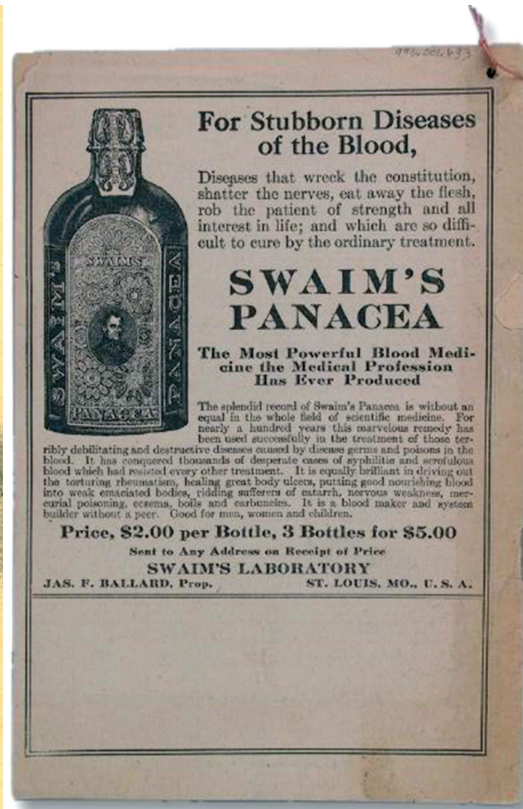


SWAIM'S PANACEA.

Photo 18. Engraving for the emblem of «Swaim's Panacea», 1822



Photo 19. Illustration from Swaim's book. The «cured» Nancy Linton, 1840s-1850s



who claimed to have been healed. In his book, he included an illustration depicting the supposedly healed Nancy Linton. However, it is unclear what exactly he intended to convey with this image: the legs of the «cured» woman could easily be mistaken for table legs, as they appeared unnaturally thin and weakened; her face was disfigured with spots, and her hands looked shriveled and darkened.

Some physicians of that time spoke out against such remedies, which contained large amounts of alcohol. Such remedies provided only a false sense of improvement in the patient's condition.

*Packaging
as art*

Yet despite ongoing protests, these medicines were not officially banned until 1906.



Photo 21. Bottle with label of the medicinal product «Swaim's Panacea», 1846



Photo 22. Label for «Swaim's Panacea», considered a work of art in 1846

*«In the absence of any other marketing messages, our packaging
- consisting of the trademark, design, color, and information -
becomes the sole communicator of our brand identity.
Looked at another way, when we have nothing else, our packaging
is our marketing».*

Philip Morris, London entrepreneur, founder of Philip Morris

This is just one of thousands of stories about such elixirs. These so-called «miracle healers» showed little concern for the fate of those who purchased their remedies. The only thing they truly understood was that every product must be attractively packaged and presented to the consumer. A product must have a story.

When Americans entered the production of patented medicines, they often presented their remedies as being made according to detailed Native American recipes. Since people were naturally drawn to the unknown, such products sold much faster than local alternatives.

For many years, manufacturers and vendors transported their goods from town to town in carts, organizing small performances. These shows told and reenacted the stories behind the creation of the medicine, accounts of healing, or explanations of its intended use. Interestingly, the father of the first multi-billionaire and founder of the Rockefeller business dynasty, William Avery Rockefeller, was one of these traveling vendors. In the first half of the 19th century, he toured newly settled areas of the American Midwest, presenting himself as a hypnotist, a medical doctor, a ventriloquist, and - most importantly - a seller of various patented medicines. In addition to patented products, he also sold a balm of his own making. According to the «healer», this balm cured toothaches, scabies, scurvy, colds, smallpox, syphilis, and even cancer - «regardless», as he specify, «of whether these diseases afflicted whites, Blacks, Native Americans, or even livestock». In reality, his balm consisted of a mixture of gasoline and moonshine.



Over time, these performances became far more elaborate. They evolved into full-scale theatrical productions featuring musicians and actors. On the eve of such performances, brightly colored posters announcing the show were displayed throughout the town. During the performances themselves, scenes of miraculous healing were reenacted, accompanied by dances, readings, and musical concerts. Often - and perhaps this was the least pleasant aspect of such shows - parasites from livestock, purchased at slaughterhouses, were exhibited and sometimes even presented as if they were human.

The sellers of these remedies relied heavily on people's emotions. Both actors and vendors expected that, after the performance, the audience would become fearful that they themselves might be ill. Since the advertised remedies claimed to cure a wide range of ailments, almost every person inevitably recognized similar symptoms in themselves. After the performance, individuals carrying bottles of the promoted remedy would suddenly appear among the crowd, offering them for sale. Sales reached their peak. The only requirement was that the actors quickly leave the town and move on to the next one.

In contrast to this approach, there were also traders who actively cultivated an aura of mystery in their sales. They sought to lend their questionable trade an air of «honesty» and «sincerity», claiming to possess certain secrets that were worth discovering. Today, we can still observe similar techniques - for example, on the beaches of Egypt. One of the most widespread figures of that time was the neatly dressed, good-natured Quaker. It was the Quaker



Photo 23. A medicine bottle with a label so long and detailed that it wraps around the bottle several times

*Packaging
as art*

merchant who was destined to usher in the era of packaged goods.

The 19th-century phenomenon known as the «packaging revolution» was largely driven by the intersection of technological progress and the sales techniques used for medicinal products described above. Many entrepreneurs of that era initially resisted the introduction of packaging, as they associated it with deceptive sales practices.

Even then, it was clear that it mattered little whether the medicine actually worked, whether it truly healed, or what its composition was. The key factor in sales was the effectiveness of its promotion and distribution. What truly mattered was selling the packaging - one that inspired confidence and a sense of belonging. The contents of the medicine could be almost anything, but equally important were the shape of the bottle, the label featuring an image of a doctor, and the elaborate story of its creation, use, and miraculous cures of those once deemed beyond help. The packaging itself could produce such a strong psychological effect that the medicine appeared to «work».

The images presented below depict medicinal products with advertising-style labels, stories of healing, usage instructions, and other essential information. As can be seen, the texts were sometimes so lengthy that the medicine bottles had to be wrapped with the label more than once.



Photo 24. Medicine bottles with labels so long and detailed that they wrap around the bottles multiple times

*Packaging
as art*



Photo 25. Medicine bottles with labels so long and detailed that they wrap around the bottles multiple times

In 1850, the first folding carton box appeared, supplied to merchants in the form of flat blanks. From that moment on, the issue of storage and warehousing of carton packaging was effectively resolved. However, as is often the case, solving one problem gave rise to another. This proved true for packaging as well. A new challenge emerged, making the work of apothecaries significantly more complicated: from this point forward, not only did customers have to wait while the pharmacist prepared their medicine (as ready-made drugs were rarely available), but they also had to wait while the seller assembled the packaging from a flat blank. The packaging process unfolded as follows: the seller manually wrapped the cardboard blank around a wooden mold and then glued the sides together. This entire procedure took place in full view of the customer and required a considerable amount of time - inevitably causing frustration both for the buyer and for the growing queue of impatient clients. And, one must assume, for the apothecary as well.

In the last quarter of the 19th century, America experienced its own «packaging revolution». One of the first non-pharmaceutical products to be packaged in carton was American Colgate toothpaste.

In 1806, a young entrepreneur, William Colgate, opened a small shop in New York where he sold starch, soap, and candles. The company grew rapidly, expanding its



Photo 26. Colgate tooth powder, 1873

*Packaging
as art*



Photo 27. Colgate tooth powder, 1873

operations and opening new factories. By 1873, it was already selling tooth powder in colorful carton packaging. We will certainly return to this company in the next chapter of the book.

In Europe, packaging was often produced in oval or round shapes. Rectangular carton packages - the form we are most familiar with

today - were far less common, and it is worth noting that such shapes were not considered the most suitable for selling medicines.



Photo 28. France, packaging manufactured in 1800

In American newspapers and publications, the phrase «folding carton packaging» began to appear as early as 1841, and by 1858 its usage had increased threefold.

During the course of this research, we turned to the online tool Google Books Ngram Viewer, which allows for the analysis of word frequency across a vast corpus of printed sources dating back to the 16th century and compiled within Google Books. The findings were quite revealing: according to this data, the phrase «carton package» began to appear in newspapers, books, and publications around 1909. Meanwhile, the term «carton box» gained broader public usage earlier, around 1901. The earliest known designation for pharmaceutical packaging was the phrase «medical box», which entered common usage as early as 1863.

The highest frequency of the term “medical packaging” can be observed in the late 1950s - which is entirely understandable. It was during this period that packaging design experienced its true development. This topic, however, will be explored in greater detail in the following chapters of the book.

Let us now return to the history of the creation of carton packaging itself. It is difficult to say how long such challenges would have continued for merchants had it not been for a breakdown at the paper bag factory of Robert Gair in 1879.

Speaking of the general terminology for carton packaging, it should be noted that the most commonly used expression - one that remains in use to this day - is «cardboard package.» This term was already widely used as early as 1833 and appeared in literature

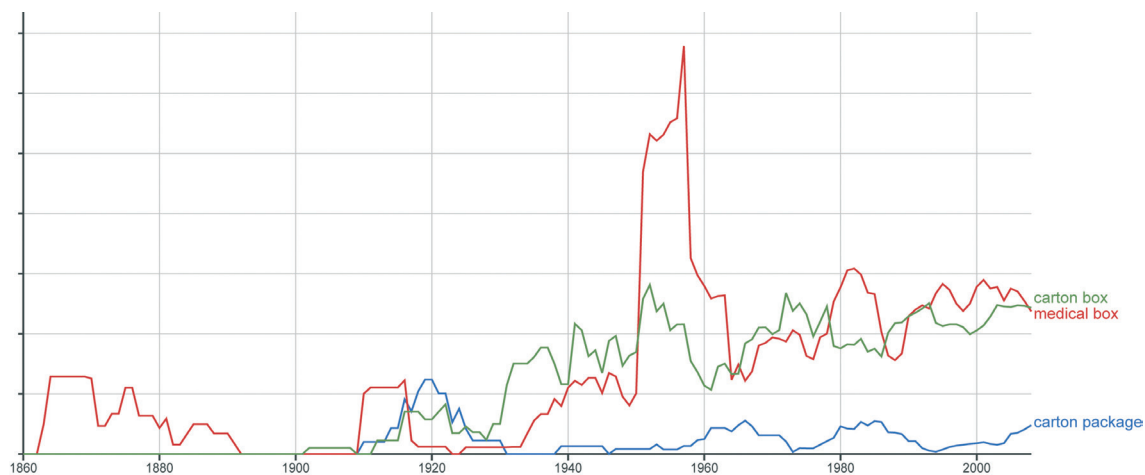


Fig. 1. Graph of the emergence and usage of terms based on Google Books Ngram Viewer

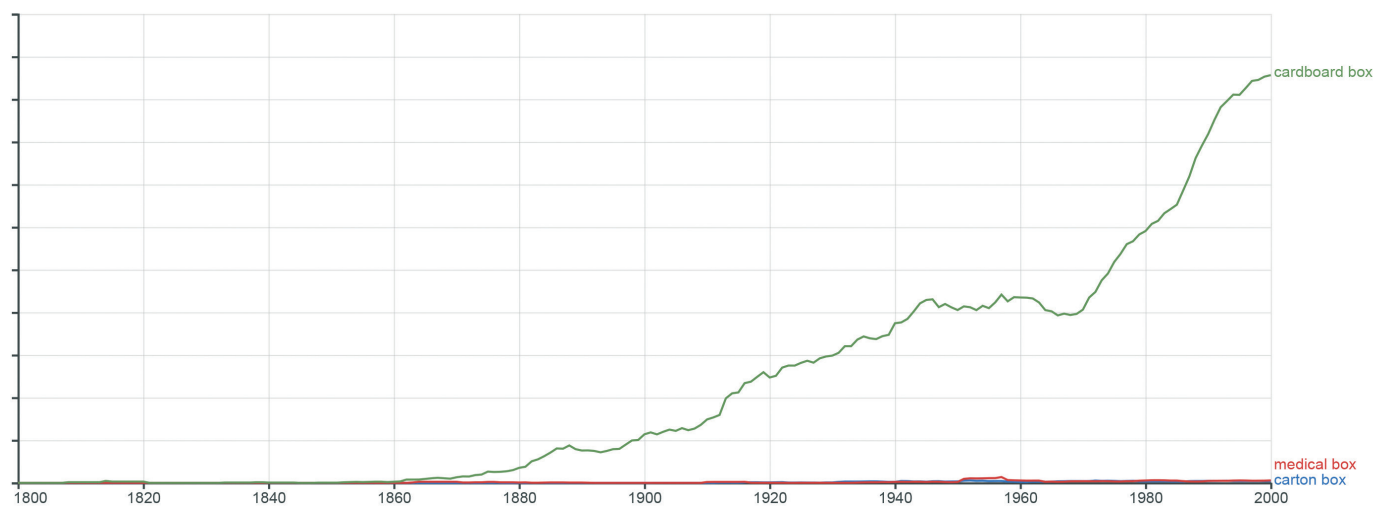
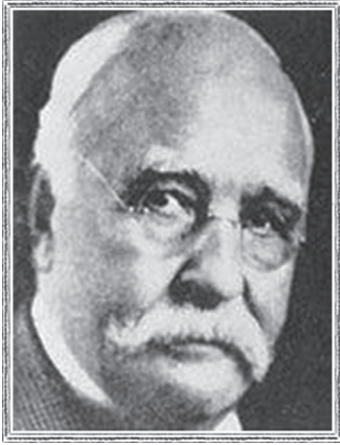


Fig. 2. Google Books Ngram Viewer graph showing the usage of the phrase «pharmaceutical packaging»

238 times more frequently than the expressions mentioned in the previous paragraph.

ROBERT GAIR AND HIS INVENTIONS



*Photo 29. Robert Gair, inventor
of the first practical folding carton
packaging*

Since Robert Gair was the man who invented the first folding carton and made a significant contribution to the history of packaging, it is worth briefly turning to his biography before discussing his innovations.

The inventor of the first practical folding carton was born in Edinburgh, Scotland. In 1853, when Robert Gair was fourteen years old, his family emigrated to Brooklyn. His father, a plumber, hoped that his son would continue the family trade, and so Robert spent his youth learning his father's craft.

After returning from the war, Robert began to consider how he might support his family. Soon, he met another enterprising young man, and together they started a business producing paper bags for grains, sugar, and flour. Within a few years, Gair not only captured the paper bag market but also persuaded nearly all grocery manufacturers to switch to paper packaging for their products. From that moment on, his income rose rapidly - he became a successful businessman, and his name became widely recognized.

But this was only the beginning of his truly remarkable success. A simple accident at his factory, combined with the right approach to work, not only made him famous worldwide but also introduced a revolutionary product to the market.

In 1879, it was an ordinary working day at Robert Gair's company in Brooklyn. But, as often happens in manufacturing, an unexpected malfunction occurred in one of the machines.

According to Gair Today, the operator working at Gair's factory *«allowed the metal rule on his printing press to rise slightly higher than required. Before the mistake was noticed, the rule had cut neat but destructive slits into several thousand paper seed bags»*. Gair was the kind of leader who sought opportunity in every situation. Instead of reacting with anger, dismissing the employee, or calculating the losses, he calmly took the damaged bags to his office for inspection. Quite unexpectedly, he realized that sharpened metal rules could be used to cut cardboard into box shapes, while dull rules could be used to crease the material, allowing it to fold neatly along straight lines. As the article further states: *«Gair experimentally raised all the metal rules above their usual level and discovered that his press produced a perfectly die-cut folding box»*.

In 1891, Matthew Werenge - described as a «practical machinist, inventor, and draftsman» from New York - предложил свой патент (US 463,849) компании Robert Gair Company for a machine capable of producing folded boxes or similar изделия. From that point forward, significantly less material was required to manufacture boxes, and the folding cartons could be shipped in a flat, collapsed form. The goal of Werenge was as follows: *«first, to assemble the package from a flat blank, as well as to fold or form the flaps in a single operation; and second, to organize the movement of the blanks after gluing and pressing in such a way that these processes would become automated»*.

As a result, packaging production was organized in such a way that significantly less paper was required to manufacture each box, and the folding cartons could be shipped in a flat, collapsed form.

*«Today, multimedia has become an industry of ‘packaged goods’.
The appearance of the box is far more important than its contents»*

*Douglas Coupland,
Canadian writer*

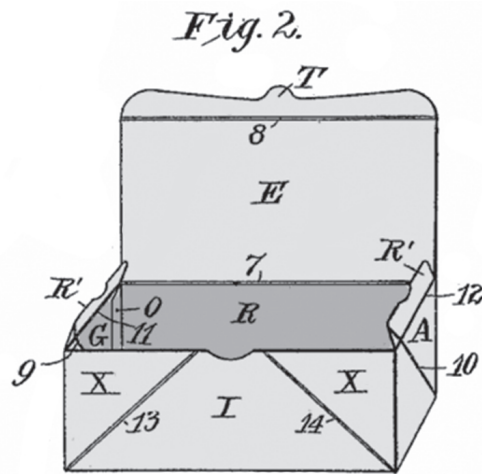
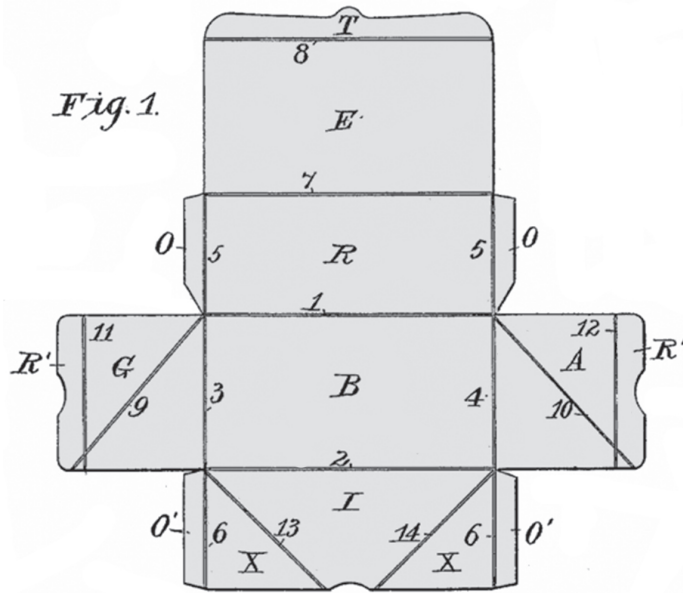


Фото 30. Патент Р. Гейра

This allowed both customers and packaging manufacturers to save money on transportation and storage. Products that had previously been packed and transported in wooden or tin boxes were now packed in cardboard, which provided sufficient strength and protection.

Robert Geir himself held several patents for useful properties and packaging design.

*Packaging
as art*

In 1924, the newspaper «New York: The World's Metropolis» wrote: «Gair revolutionized the packaging industry... by introducing flexible steel rules shaped to the outline of a box, which cut and crease the cardboard, allowing each press stroke to produce a large number of blanks».

The production of carton packaging was still considered heavy manual labor, which kept its cost relatively high. Despite this, more and more pharmacists began to recognize the advantages of presenting their products in carton packaging. However, in their view, such packaging needed to stand out from ordinary solutions.

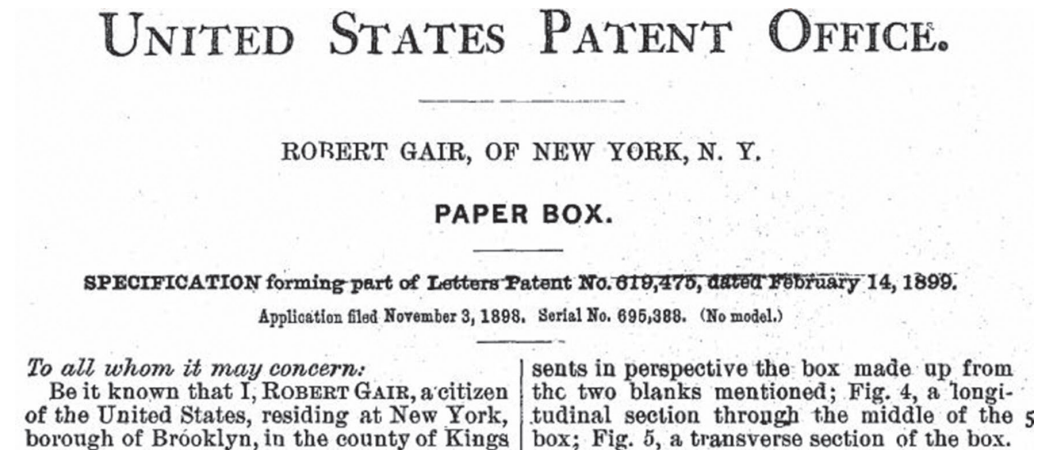


Photo 31. R. Gair's patent

Thus, in 1888, the English firm Robinson received a patent for paper pill boxes - packaging specifically designed for tablets.

Robert Gair's company continued to expand. Manufacturers of grains, biscuits, and pharmaceutical products became his regular clients. Yet Gair had no intention of stopping there. He saw vast potential in his business and continued to search for ways to improve and accelerate the production of carton packaging.

Over time, it became clear that even thousands of employees could no longer keep up with the growing volume of orders arriving at the factory. This prompted the entrepreneur to consider greater automation of production - reducing the number of workers while simultaneously increasing productivity.

In 1890, Robert Gair brought this idea to life: he became the inventor of the die-cutting machine.

For pharmacists and manufacturers of other goods, this invention meant that the cost of carton packaging could be reduced several times over. In turn, this allowed producers of various goods requiring packaging to sell their products more efficiently and at more affordable prices for consumers. The market began to expand, and competition grew even stronger.



Photo 32. Robert Gair's carton packaging factory

*Packaging
as art*

Remarkably, even this invention was not the final step for Robert Gair. Once the production process had been established, he combined two key operations: printing and die-cutting. As a result, his company was able to produce no fewer than 7,500 packages per hour - whereas previously, the same quantity required an entire day of work by dozens of employees.

Robert Gair was truly a remarkable inventor. Thanks to him, the world saw the emergence of the first affordable and user-friendly carton boxes, as well as die-cutting machines. With the introduction of his innovations into production, apothecaries no longer needed to assemble packaging themselves; instead, manufacturers began developing unique designs for their products.

Nevertheless, the true reason for the success of Gair's boxes lay not only in the speed of production or the convenience of packaging. Carton packaging opened the door to marketing.

Manufacturers of all kinds of products discovered six new



Photo 33. Employees at Robert Gair's carton packaging factory

Photo 34. Printing facility for carton packaging production



Photo 35. Robert Gair's carton packaging factory

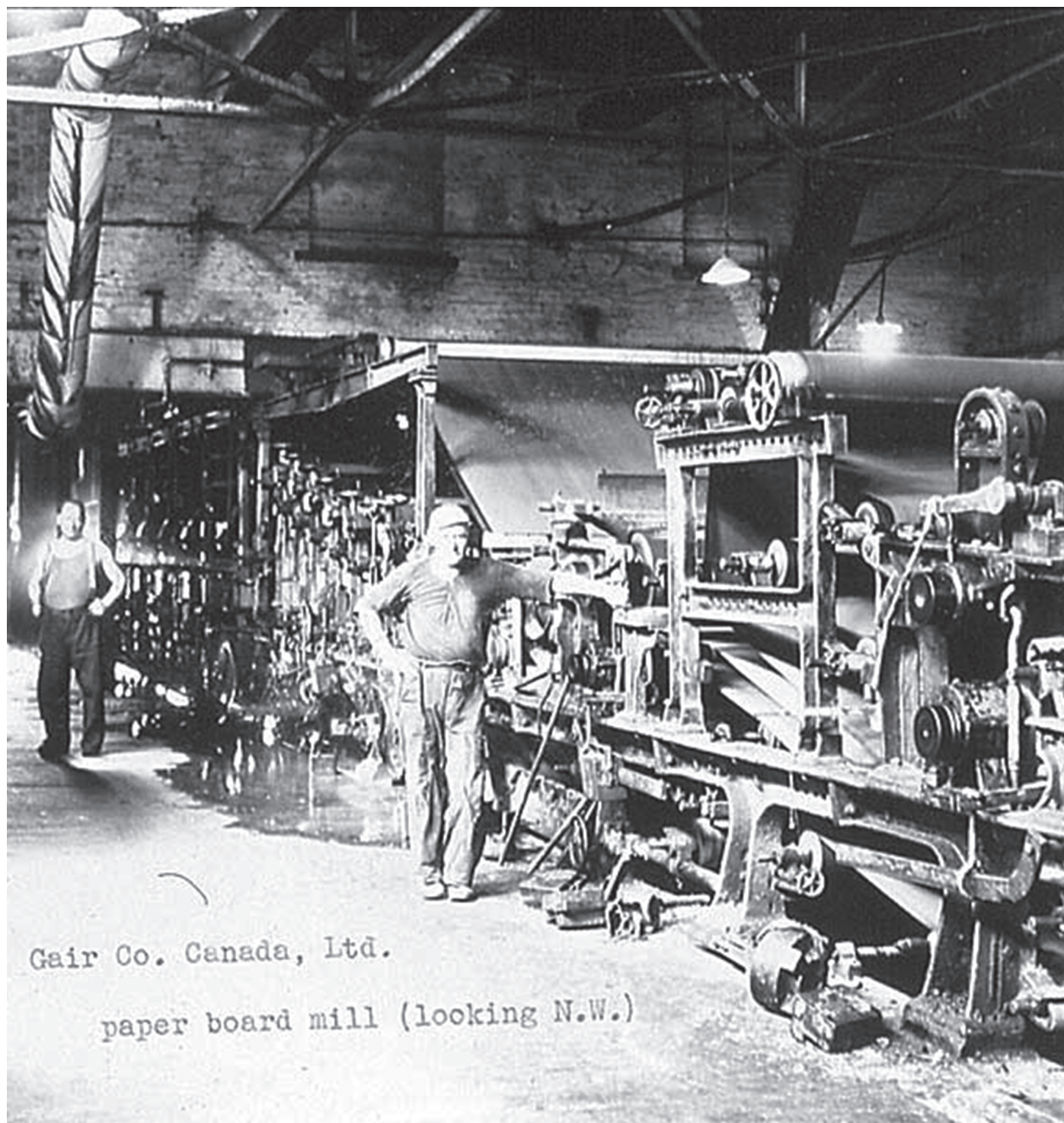
advertising spaces - and, remarkably, these came at no additional cost. These spaces were located directly on the packaging itself. Producers began placing a vast amount of information on their packaging, including testimonials, the history of the product's creation, its benefits, and numerous reasons why it should be purchased.

The need for paid advertising gradually receded into the background. The abundance of posters that once covered store counters diminished significantly and were now displayed mainly outdoors or in shop windows of grocery stores and pharmacies. Store counters themselves became far more visually appealing, thanks to the bright designs featured on packaging. By packaging their products in carton boxes at the factory rather than in-store, advertising directly through magazines and posters, and making their packaging recognizable, manufacturers gained greater control over the market. It seemed as though everyone benefited: Gair earned well-deserved recognition and a stable high income;

*Packaging
as art*



Photo 36. Office of Robert Gair's Company



Gair Co. Canada, Ltd.

paper board mill (looking N.W.)

Photo 37. Cardboard production at Robert Gair's facility, Canada

manufacturers began packaging their products in distinctive, recognizable designs; and retail displays became more attractive, which in turn increased sales.

Robert Gair was one of those strong individuals who, looking at their achievements, no longer dwell on the hardships they once faced. Interestingly, when speaking of his greatest achievements in life, Robert Gair would first recall the election and victory of Abraham Lincoln - an event to which he had contributed by casting his vote. He believed that this act was his greatest accomplishment, one that allowed him to make a meaningful contribution to the future of his country.

In the early years, companies commissioned Gair's packaging primarily for small consumer goods such as tea, tobacco, toothpaste, and cosmetics. Among his first well-known clients - brands that remain recognized today - were The Great Atlantic & Pacific Company, Colgate, Pond's, and the tobacco manufacturer P. Lorillard.

In 1896, Robert Gair secured his largest client for carton packaging production - The National Biscuit Company, or Nabisco. Their orders amounted to approximately two million packages per month.

The Truth About Packaging... Aspirin

In 1897, Felix Hoffmann, an employee of the German company Bayer, developed a new drug called Aspirin. Shortly thereafter, the renowned German physician and Hoffmann's

associate, Hermann Dreser, introduced the drug into clinical practice.

In March 1899, Aspirin was officially registered as a trademark by the Imperial Patent Office in Berlin. From that moment on, it was



Photo 38. «Aspirin», packaging, 1899

produced in powder form and packaged in a small carton box, with its global sales measured in tens of tons. Aspirin was selling off the shelves so rapidly that production could barely keep up with demand. However, this success was not due solely to the properties of the powder, but also to the design of its packaging. Aspirin was one of the first medicines to be released in packaging with a consistent, recognizable design.

By the end of the 19th century, carton packaging began to spread with renewed momentum, driven by innovation and by the growing number of entrepreneurs who could now afford what had once been considered a luxury.

In 1899, newspapers were filled with advertisements for packaged goods. Interestingly, manufacturers often did not consider it necessary to show the product itself - but the packaging was always prominently featured. When selecting material for publication, newspapers gave priority to stories in which carton packaging appeared. These could include reports of poisonings, cures, or even fictional stories involving packaging.

*Packaging
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Carton packaging captured the imagination not only of manufacturers in Europe and America but also of the East. In 1899, one of the oldest Japanese pharmaceutical companies - Daigaku - began producing Daigaku Eye Drops eye drops in cardboard packaging. It is worth noting that these drops are still produced today, albeit in a completely different packaging, but - what is especially important and deserves respect - their logo has remained unchanged. The slogan of the 1899 novelty has also not changed and reads as follows: «Modern progress and eye drops are inseparable concepts».

It is worth noting how different the approach to the design of cardboard packaging was in Europe and the countries of the East. Everything is explained by culture. If for European pharmacists it was important to create elegant and attractive packaging as an extension of the product itself, then in Japan a slightly different attitude towards it was initially formed. Here, packaging has long been thought out much more carefully than in any other country. In Japan, even pharmaceutical packaging is a kind of gift-giving ritual and, according to established traditions, is a manifestation of the manufacturer's respect for the consumer. Packaging is



Photo 39. Cardboard packaging for Daigaku Eye Drops, manufactured in 1899

recognized as a cultural phenomenon here.

The Truth About Packaging... Colgate

Speaking of the Colgate company, it is important to highlight their approach to packaging and their firm belief that it is the packaging that sells the product.

In 1892, Dr. Washington Sheffield, an American dentist, introduced an entirely new form of packaging for toothpaste - a metal tube, identical in shape and appearance to the paint tubes still used by artists today. The idea came to him during a trip to Europe, where he observed painters at work. Prior to this innovation, toothpaste



Photo 40. The first Colgate set



Photo 41. Colgate tooth powder

*Packaging
as art*

had been stored in round tin containers, which were not always convenient for either consumers or the inventor himself.

Initial trials demonstrated that this new format was far more practical and suitable for Sheffield's product. However, a new question arose - how to package the tube itself within a carton box. After some consideration, it became clear that packaging was not only necessary but had already become a matter of good practice. If one sought sales, recognition, and brand awareness, the product had to be packaged in carton.



«Packaging is as important as the product itself - sometimes even more so»

*Jack Trout,
American marketer, founder and president of Trout & Partners*

That same year, a design for the toothpaste tube was developed - one that has remained largely unchanged over time.

Yet the company's innovations did not end there. As early as 1897, the company began selling its products in bundled sets. These sets included soap, tooth powder, antiseptic powder, and a bottle of cologne. All of these items were packaged together in a single carton

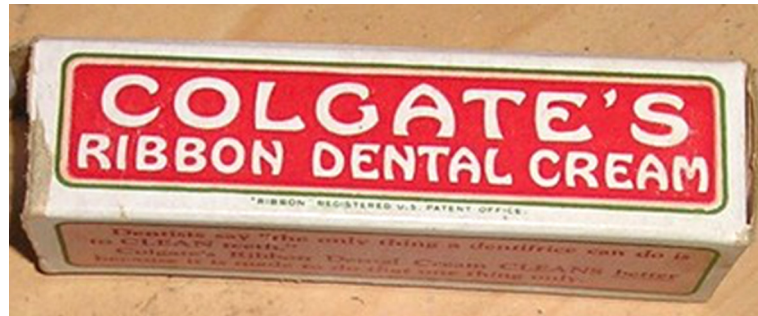


Photo 43. The first carton packaging for Colgate toothpaste



Cashmere Bouquet Soap Free
in 100th Anniversary Package of
COLGATE'S
Antiseptic Dental Powder
This Year Only.

*Packaging
as art*

Photo 44. Advertisement for Colgate toothpaste

box, becoming the forerunner of the gift sets we know today.

In 1906, Colgate made yet another bold and unexpected move. Once again, they introduced innovations in what was not yet formally recognized as the field of marketing. To mark the 100th anniversary of the company's founding, they launched a limited-edition packaging design for two of their core products: tooth powder and soap.

The Truth About Packaging... Baker's

It was not only pharmaceutical companies and manufacturers of household goods that paid close attention to their products and packaged them in attractive carton boxes. One of the first confectionery companies to focus on packaging for its chocolate was Baker's, formerly known as Baker Chocolate. Notably, the company still exists today and remains one of the largest chocolate manufacturers - and packaging may well have played a significant role in its success. As early as 1877, references to this chocolate and its packaging began appearing in the press. The packaging was monochromatic but contained a wealth of information about the product. Over time, its design evolved, yet one key element has remained unchanged to this day - the silhouette of a woman holding a tray with a cup of hot chocolate and a glass of water. There is an interesting story behind the image of the «La Belle Chocolatière» featured on the packaging - one that deserves inclusion in this book.

First of all, this image is based on a painting housed in the Dresden Gallery in Germany.

An Austrian prince once visited a chocolate shop to try a new beverage that had already become beloved throughout the kingdom - hot chocolate - though he himself had not yet tasted it. When the prince arrived, a beautiful young woman approached him, carrying a tray with a cup of hot chocolate and a glass of water. He was so captivated by both the girl and the drink that he soon commissioned the renowned Swiss artist Jean-Étienne Liotard to paint her portrait exactly as he had first seen her. This portrait later became his wedding gift to her.

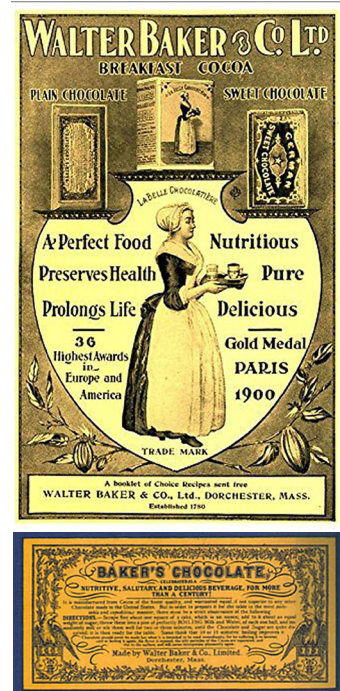


Photo 45. Advertisement and early packaging of Baker's chocolate

Only some time later, in 1883, the image of the young woman was registered with the United States Patent Office. When the president of Walter Baker & Company saw it, he decided that this image would become the perfect representation of the historic chocolate brand. And to this day, the image of the beautiful chocolatier appears on every package of Baker's chocolate.

The Truth About Packaging... Quaker Oats

The first food product to fully embrace carton packaging - and marketing in its modern sense - was something quite modest: oatmeal. Originally considered food for horses, and at best for impoverished Scottish wanderers, it gradually made its way

into household kitchens. Nevertheless, in 1877, the Quaker Oats Company registered its first trademark for breakfast oatmeal. The company's founders, Henry Seymour and William Heston, chose the name «Quaker» from many possible options simply because it seemed to them a true reflection and symbol of high quality and honest value.

In 1881, Henry Parsons Crowell acquired the bankrupt Quaker Mill Company, along with its most valuable asset — the Quaker brand itself.

By 1882, newspapers were already actively featuring subtle advertising for oatmeal, in which journalists described its health benefits and nutritional value. They also emphasized that packaged oatmeal was, first and foremost, a clean product - free from dust and unwanted additives, such as insects. Later, the company began to communicate more carefully with consumers through advertising, using phrases such as: «We would like to draw your attention to the purity of our product...» It is also worth noting that every advertisement by the company contained a barely noticeable yet memorable logo that remained in the consumer's mind.

At that time, the product itself was already packaged. Oatmeal was sold in simple carton packaging with black-and-white printing. Notably, Crowell used a carton box design patented by Robert Gair seven years prior to the events described here. The packaging featured a rather stern-looking Quaker figure, which did not particularly appeal to consumers. However, a few years later, Crowell decided to replace the image with a more approachable one.



Photo 46. Original Quaker image



Photo 47. Modern Quaker image

In 1891, Quaker changed the shape of its packaging to a cylindrical form, and the printing became colored. This allowed the product to stand out among competing goods on the shelves - precisely the effect Crowell had intended. It is worth noting that today, Quaker oatmeal is still presented on supermarket shelves in much the same format: a cylindrical package featuring a smiling Quaker on the front. The only difference is the absence of the large amount of information that once covered the entire surface - recipes, news, and product details.

In addition to these changes, Crowell decided to place recipes directly on the packaging. Though simple, these recipes proved to be a valuable innovation that significantly contributed to the rapid growth of the Quaker brand. They encouraged homemakers to use oats to prepare bread, puddings, pancakes, baby food, and porridge.

One of Crowell's partners developed a filling machine that poured oats into packages and sealed them. This machine could fill up to 20 packages per minute, greatly improving production efficiency in response to growing demand. That same year, 1891, Crowell introduced two new marketing techniques: product samples and gifts inside the packaging. As a result, the filling machine was equipped with additional mechanisms that allowed small gifts or special spoons to be placed inside the packages - further стимулируя продажи.

At the same time, Crowell turned to more direct advertising: «One pound of Quaker Oats builds as much muscle and bone as three pounds of meat! Why not give it a try?»



Photo 48. The first cylindrical carton packaging for oatmeal

That same year, in 1891, Crowell launched a train consisting of 15 cars that traveled across the country with a spectacular promotional show. It stopped in every town, where performers staged presentations and distributed miniature versions of Quaker packaging filled with oatmeal. These samples helped him establish

*Packaging
as art*



Photo 49. Advertisement for Quaker Oats

connections with grocers and accelerate the distribution of his products. At the same time, this creative approach significantly increased brand awareness throughout the country. Crowell also introduced a campaign in which customers could receive a prize by cutting out the image of the Quaker from the packaging and mailing it to the company. Images of the Quaker, the packaging, oatmeal, and other brand-related visuals appeared everywhere — on fences, building walls, billboards, and even inside stagecoaches. Quaker Oats swept across the country.

From the late 1880s to the early 1890s, Crowell quite literally extracted everything that packaging could offer. To those who followed, he left both an opportunity to develop his ideas further and a foundation from which to learn.

*Packaging
as art*

The Truth About Packaging... Hershey's

Yet history also knows companies that remain immensely popular to this day, having earned the trust and respect of consumers - and all this without relying on advertising in the early stages of their development. Let us look at how the American chocolate brand Hershey's, without advertising, became one of the strongest in history, while its packaging achieved iconic status.

First of all, when speaking about Hershey's advertising, it is only fair to note that the company's first official advertisement did not appear until 1970 - despite the fact that the company itself was founded as early as 1894.

Milton Hershey was only fifteen years old when his aunt arranged for him to become an apprentice and assistant to a confectioner. After four years of training in Lancaster, he traveled to Philadelphia, Denver, Chicago, and New York, where he repeatedly opened - and after some time closed - his own confectionery businesses.

Ten years later, he realized that chocolate was his true passion. This realization allowed him, by the age of twenty-eight, to present the world with 114 varieties of chocolate.

In 1906, Hershey released its first chocolate in paper packaging.

In 1937, the government turned to him for assistance. Such requests often proved disastrous for businesses - but not for those who were truly devoted to their product. There was an urgent need to produce chocolate for military personnel within a very short time. Each bar had to contain at least 600 calories and be resistant to melting. Hershey completed the task remarkably quickly. Even for military

*Packaging
as art*

use, the chocolate was packaged in carton boxes. This packaging was necessary to protect the product from damage and to preserve it in a condition suitable for consumption during constant movement and under extremely harsh conditions. However, the packaging itself underwent changes: it became completely simple, without any elaborate design - in keeping with the realities of wartime.

Thus, without any advertising, distribution of samples, or particularly active promotional efforts, Hershey's chocolate very quickly won the affection of consumers..

It would be inaccurate to attribute this solely to the owner's passion for his product and company. While this was undoubtedly important, Crowell was equally devoted to his product and communicated its value to consumers through every available channel. It seems more likely that the key lay in the product itself. Oatmeal had long been considered a low-status food, suitable only for horses, animals, or people who could barely afford to survive. Crowell faced the challenge of changing this deeply rooted perception in the minds of potential consumers - no easy task, considering that such beliefs had been formed over generations. People were born with this assumption and could hardly imagine a situation in which they would willingly eat oatmeal in any form.

Chocolate, however, was a different matter. It was an elite product that not every consumer could afford. As mentioned earlier in this book, the first items to be packaged in carton or paper were the most expensive goods - chocolate, jewelry, and pharmaceuticals. It is easy to understand why everyone wanted to try chocolate.



Photo 50. The first packaging for Hershey's chocolate



Photo 51. Hershey's chocolate packaging, 1937

Opening a chocolate shop or confectionery store at that time was comparable to opening a modern luxury mall filled with boutiques such as Chanel, Yves Saint Laurent, and Dior. Everyone wanted to step inside and experience it, yet only a small percentage of people could actually afford to purchase such products. For this reason, chocolate required little advertising. However, by 1970, as the market became saturated with similar products and chocolate-making

*Packaging
as art*

recipes became widely accessible, uniqueness grew increasingly rare. At that point, every player in the market had to adapt in order to survive - by launching advertising campaigns, establishing marketing departments, organizing promotions, and more.

The Truth About Packaging... Wrigley's

I clearly remember how two chewing gums entered my life: Wrigley's Doublemint and Juicy Fruit. It was around 1991, I was about five years old, and I lived with my parents in the Astrakhan region, in a military town. One day, an American delegation arrived at the missile testing site. My father was involved in supervising the launches and, naturally, had to communicate extensively with the delegation. I remember how one day he brought home two boxes (which I now understand were multipacks) of chewing gum - one green, Wrigley's Doublemint, and the other yellow, Juicy Fruit. At the time, neither my sister nor I had any idea what this product was, but I vividly recall how we - along with our friends - tried to earn a piece of this «miracle gum» from our parents.

It is fascinating to realize now that this chewing gum had been on the market for nearly a hundred years before I first encountered it - and that it had been invented even earlier.

Originally, Juicy Fruit chewing gum came in a pale gray wrapper with red lettering. Its now iconic yellow packaging appeared only after World War II.

Unlike the fruit-flavored gum, Spearmint quickly adopted its signature white packaging. By 1910, Wrigley's Spearmint had

become the best-selling chewing gum in the United States. Even today, it is rare to find a more effective, concise, and visually expressive way of conveying the taste and emotions of a product through design.



Photo 52. Advertisement for Wrigley's Spearmint chewing gum

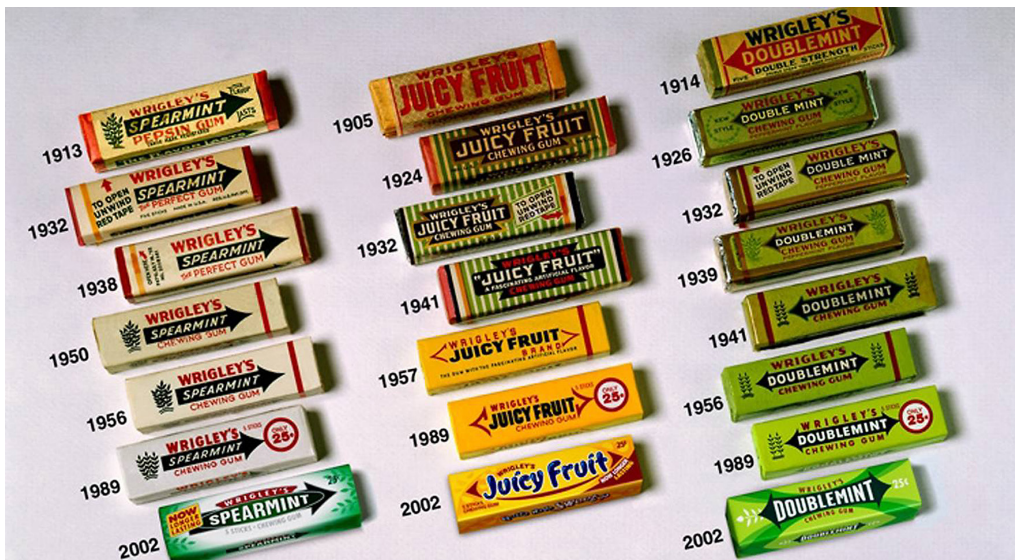


Photo 53. Samples of Wrigley's Spearmint chewing gum

Packaging
as art

In 1914, after a long period of stagnation in the product line, a new brand emerged - one worthy of its predecessors: Doublemint. From the very beginning, the peppermint-flavored chewing gum was introduced in green packaging with a distinctive logo - a double arrow. The new product was advertised as having «double strength»and being «twice as good».

Interestingly, the company's owner, Wrigley, consistently invested in advertising, and it was largely благодаря этому that the company became a leader in its field. His primary focus was on simple, memorable slogans. For example, he purchased billboards featuring short phrases such as «Doublemint - twice as good». He also mailed a pack of chewing gum to every household that had a telephone, believing that people who could afford a telephone could also afford a pack of gum - if they liked the product. Additionally, he gave two sticks of gum to every child who turned two years old.

During World War II, much like in the case of Hershey's, the company was required by the government to dedicate all remaining production to supporting the morale of American soldiers. As a result, the company entered a period of decline and was no longer able to produce its chewing gum with the same quality and flavor. Instead, they introduced a simpler product called Orbit, deliberately avoiding any association with the Wrigley brand. As the war continued, the company eventually ceased production of its main brands altogether - even for military use. However, since the new Orbit brand was not actively promoted, the established

brands continued to be advertised - even though they were no longer available for sale. One particularly striking example was a printed advertisement depicting an empty pack of Wrigley's Spearmint, accompanied by the message: «Remember this package!»



Photo 54. Advertisement for Wrigley's Spearmint chewing gum

*Packaging
as art*

The idea seemed almost absurd - yet it worked. After the war ended and production of the company's three flagship brands resumed, Wrigley's sales surpassed their pre-war levels.

It is worth noting that in 1993, the Wrigley's brand was valued by the Financial Times at over \$1.5 billion.

In the pre-industrial era, manufacturers sought to distinguish their products through the aesthetics of packaging. At that time, images were commonly used to indicate the location of a shop or to depict a storefront sign that would instantly remind customers of a particular product. When buildings were illustrated on packaging, they typically represented the factory where the product was made rather than the retail store. It should also be noted that it was considered particularly prestigious to adorn packaging with a special mark of distinction. In Britain, for example, it was permitted to indicate royal or court patronage.

The appearance of human portraits on packaging marked a significant shift in consumer perception. Many manufacturers demonstrated to their competitors that such imagery could establish a connection between the product - or the company - and the buyer. Even without formal data or statistics, it was clear that products featuring packaging with a human image were perceived as more trustworthy. And even if the portrait did not represent the actual owner of the company, the product still inspired confidence. People had already come to fully understand that the driving force behind financial success was neither power nor authority, but a well-earned reputation among others.

In many ways, history simply repeats itself. By the end of the 19th century, it was crucial for manufacturers to distinguish their products from those of competitors. And they did so through one defining element - the human face. Even then, the idea that a person's name carried value, and that people were willing to pay more for it, was already firmly established. Individuals built their personal brands: they placed their likeness on packaging, appeared in advertisements, launched promotional trains, and participated in public shows. Today, just as centuries ago, we continue to build personal brands. We speak at conferences, present our unique value propositions, participate in platforms like Clubhouse, demonstrate our expertise, and elevate the importance of our names in order to sell our products at higher prices. In essence, nothing has truly changed... except for one detail: today, we no longer place our faces on packaging. In fact, it might even be perceived as inappropriate. Yet something suggests that in a few decades - or perhaps a century - such packaging and branding may very well return.

In conclusion, it is fair to say that by the end of the 19th century, carton packaging had begun its triumphant march across the world, preparing to soon become an essential part of every product. The advantages gained by companies such as Baker's and Colgate through their innovative approaches to packaging provided them with an exceptionally strong foundation for building their brands. It was this very foundation that ultimately propelled each of these companies into the ranks of the most powerful

players in today's market.

PART II
THE EVOLUTION OF
CARTON PACKAGING DESIGN

1900 – 1919

*«A mediocre idea, beautifully presented,
will go much further
than a brilliant idea poorly presented»*

Scott Adams

The period from 1900 to 1919 was marked by rapid development in the design of pharmaceutical carton packaging, as well as the creation of printing and post-printing equipment. These years can be described as a true breakthrough in the production of labels and packaging: new printing technologies emerged, embossing techniques such as embossing and gold stamping were introduced, sheet-fed offset printing presses appeared, and a trend toward elegant carton packaging design began to take shape.

At the beginning of the 20th century, labels on medicine

bottles became an essential attribute. This was driven by several factors. First, counterfeit products began to appear on the pharmaceutical market. In response, most countries introduced legislation prohibiting the misleading of consumers, which in turn led to stricter requirements for the appearance of packaging and labels for medicinal products. Second, pharmaceutical manufacturers realized that placing advertisements directly on packaging through labels was far more cost-effective than producing posters or other forms of advertising. Moreover, all six sides of the package could be utilized - as mentioned in the previous section of this book.

It is also important to note that in 1906, the United States enacted the Pure Food and Drug Act, which effectively implied the necessity of proper packaging for products..

In 1907, W. H. Black, advertising manager of the magazine *Delineator*, expressed a rather striking idea in his book «Household Income»: that every housewife should economize on purchases, as she was the one responsible for managing the family's financial resources.

«Of all the duties in a woman's life, none is more sacred than the duty to shop wisely. It is equally true that the most grievous wrong you can do to your family and to yourself is careless spending of money – the life force of the man who loves you and does everything possible for you», - wrote Black in his book.

At the same time, he emphasized that packaged and branded goods were more reliable in terms of quality and purity. As

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as art*

industrialization progressed, household incomes increased, giving people greater freedom of choice in what to buy. Consumption itself became a central concern. Black expressed this idea as follows: «Imagine that every time you bought oatmeal, sugar, thread, or soap, you had to examine your purchase with the utmost care - to ensure that the oatmeal and sugar were pure and accurately measured; to make sure the soap would perform no worse than any other; to check that the thread was strong enough and would not break, causing you additional trouble. Consider what your daily shopping would cost you in terms of this extra time and effort».

Before the emergence of packaged goods and commissioned advertising articles - through which manufacturers explained all the advantages of their packaged products - consumers had not even considered the necessity of buying goods in packaging. The expectation of total effectiveness and almost magical qualities from packaged products became something entirely new for society. In fact, this very expectation of «magic» and novelty was created jointly by advertisers and product manufacturers. Recognizing the burden placed on consumers - overwhelmed by choice and burdened by unfounded doubts about the quality of unpackaged goods - manufacturers offered them a solution in the form of two new allies: labeling and carton packaging.

THE PRINTING BOOM

Following Robert Gair's invention of the die-cutting machine, the popularity of carton packaging began to grow rapidly. Pharmacists were eager to present their products in carton packaging, yet the возможности to do so beautifully and tastefully were still limited.

The so-called «printing boom» began in 1904. In that same year, the first three-cylinder offset printing press was developed for printing on paper sheets. Its inventors - American Ira Rubel and German Caspar Hermann - initially worked independently, unaware that they were both researching the same field. By combining their knowledge and efforts, they improved the printing press by covering the cylinder with soft rubber, which resulted in sharper and more precise ink impressions. In doing so, Rubel and Hermann elevated offset printing to an entirely new level of quality.

An interesting fact is that Ira Rubel arrived at the idea of «indirect printing» quite by accident. One day, he discovered «spoiled» sheets of paper on which an image from a previous sheet had been transferred onto the reverse side. After showing his finding to a fellow publisher, they decided to take a risk - and the next issue of the newspaper was printed using this new method.

Unlike his American counterpart, Caspar Hermann arrived at the concept of «indirect printing» through a systematic series of experiments. Together, Ira Rubel and Caspar Hermann went on to create the first sheet-fed offset printing press, incorporating plate, blanket, and impression cylinders, which significantly increased

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*«Marketing specialists manipulate public opinion
and consciousness.
They are the new rulers of the economy!
In the end, everything is sprinkled with glitter,
clips, and flashy outfits.
Packaging replaces the content»*

*Bernard Werber,
contemporary French writer and philosopher*

printing speed. The machine was capable of producing up to 5,000 impressions per hour. To understand the importance of this invention, it is worth noting that offset printing remains the dominant method used in the production of carton packaging to this day.

The year 1907 proved to be rich in significant innovations. That same year, Caspar Hermann received a patent for an offset press capable of printing on both sides using the «rubber-to-rubber» principle. Unfortunately, his contemporaries were unable to fully appreciate the advantages of double-sided printing.

Also in 1907, the English inventor Samuel Simon patented screen printing - silk screen printing. Printing was carried out using a stencil made of silk fabric, stretched over a wooden frame. Ink was pressed through the silk mesh onto cardboard or paper using rubber rollers and squeegees. Over time, screen printing began to be widely used for decorating advertising posters, carton boxes and packaging, glass bottles, and other items within the packaging industry. Even today, this method remains in use by many packaging manufacturers - for example, for applying ultraviolet varnish to packaging.

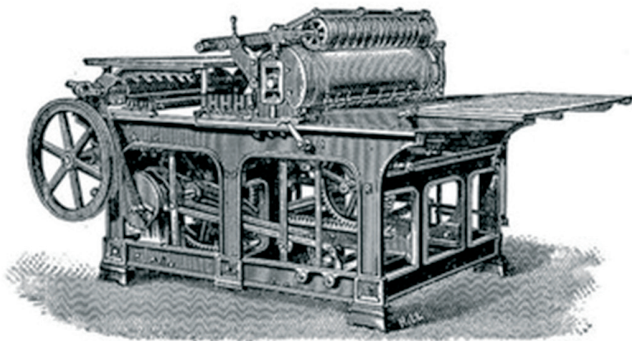


Photo 55. The first sheet-fed offset printing press

In 1908, gravure printing saw significant development, building on the foundations laid by the Czech artist and inventor Karel Klíč. German innovators

- engineer Eduard Mertens and textile manufacturer Ernst Rolffs - developed and implemented a photochemical method for producing gravure cylinders. The varying depth of the etched cells allowed for different thicknesses of ink layers on the print. Thanks to gravure printing, it became possible to reproduce previously unattainable halftones and shades.

In 1910, the German newspaper *Freiburger Zeitung* published illustrations produced using the gravure printing method. For this reason, 1910 is considered the birth year of gravure screen printing, which is now widely used in the production of packaging materials.

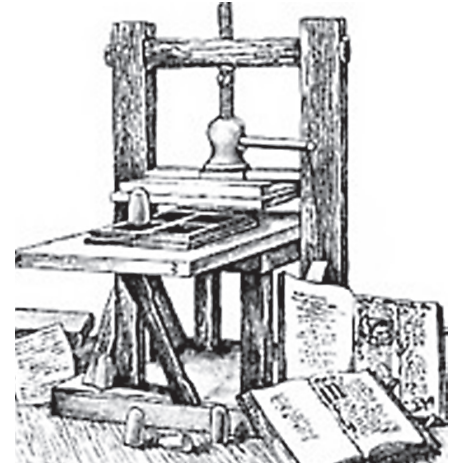


Photo 56. One of the first screen-printing machines

In the same year, printers in the United States and Western Europe began using the color violet. This was a significant breakthrough, as violet remains one of the most difficult colors to reproduce even today. In 1910, its use in carton packaging printing was a true achievement. The company discussed below made full use of this printing capability - and did not regret it.

The Truth About Packaging... Cadbury

Since the early 1900s, chocolate in England had been developing its own unique story.

The history of the Cadbury company dates back to 1824. Initially, the company produced chocolate exclusively for Queen

Victoria. However, focusing on a single direction led to a rapid decline, and the founder's sons were forced to take control of the business and determine its future course.

In 1850, Cadbury introduced its first packaging innovation for chocolate. They developed a combined packaging solution consisting of an inner layer of foil and an outer wrapper made of grease-resistant paper. This concept was designed to protect the product from absorbing unwanted odors. At the same time, the packaging served a communicative function. Notably, this type of packaging remains a fundamental standard in the food industry to this day.

It took quite some time before the Cadbury brothers finally decided to release their first industrial batch of milk chocolate bars.

In 1905, Cadbury launched its Dairy Milk chocolate bar. This product was considered to be of exceptional quality, with a high milk content and unlike any chocolate that had existed before. Moreover, the brothers immediately understood that this chocolate had to lead the market not only through its taste but also through its packaging - which needed to stand out from all other chocolate products available at the time.

The first element they considered essential was the distinctive color of the packaging. It had to be unusual, difficult to imitate, bright, and eye-catching. After brief consideration, they chose a completely new and complex color for that time (and, to some extent, even today) - purple. Thanks to this bold color choice, the packaging stood out significantly from that of any other product, not just

*Packaging
as art*



Photo 57. Cadbury advertisement, 1850s

chocolate. By 1914, Cadbury chocolate had become the most recognizable and best-selling among all confectionery products of its time. It is also worth noting that chocolate bars in purple packaging accounted for 40% of Cadbury's total export volume.

Interestingly, while the packaging design evolved over time, it remained faithful to two key elements: its color and the image of a glass half-filled with milk. Today, the packaging of Cadbury milk chocolate still retains its signature purple color, while the design

has changed only subtly, becoming slightly more modern. This consistency and respect for the product's heritage have played a significant role in the brand's success.

In 2020, as part of a campaign to combat loneliness among the elderly during the pandemic, the UK government approached Mondelez Cadbury with a unique request - to remove all words from the packaging and create a wordless chocolate bar. Keeping the design simple, the iconic image of milk pouring from a jug remained in its familiar place. As a result, the packaging achieved a sense of complete visual «silence». On the back, consumers could find information stating that 30 pence from each bar sold would be donated to a fund supporting elderly people in the UK. The signature Cadbury purple, combined with the white jug and milk, is so distinctive that the chocolate remains instantly recognizable - even without any text on the packaging.

In 2021, the company went even further by launching a new and unique marketing campaign called «Donate Your Words», aimed at «giving a voice» to elderly people. British chocolate bars and

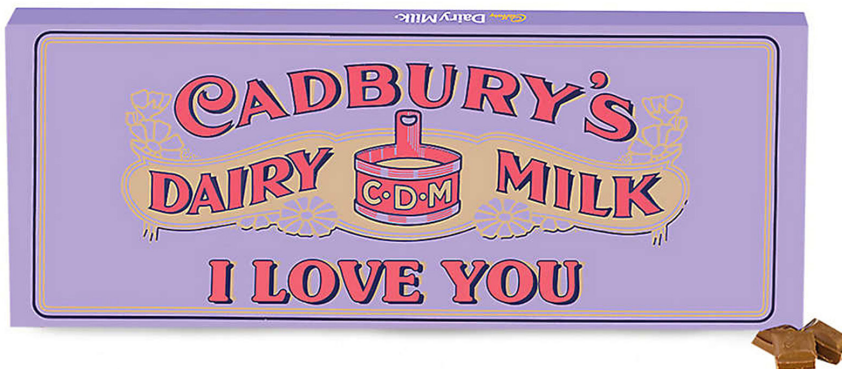


Photo 58. Cadbury packaging, 1905

*Packaging
as art*

confectionery products were released in new packaging featuring personal stories from seniors. Consumers could discover that Rose, now 79, once kissed the most famous rock star in the world; that Harry, now 84, ran away with his family to join a traveling circus; and that Firoz, now 88, took part in some of the most dangerous car rallies in the world during his youth. And yet, when we look at elderly people, we rarely think that they once dreamed just as boldly as we do - and brought their most daring ideas to life.

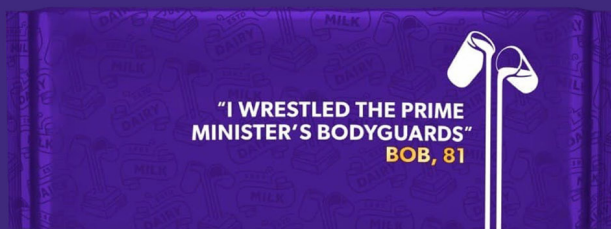
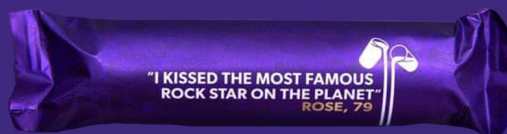
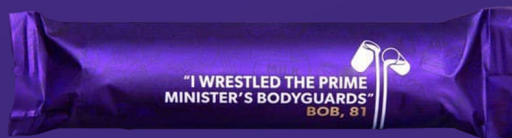


Photo 59. Cadbury packaging from the 2021 campaign

The Truth About Packaging... Nabisco Uneeda

In the 1900s, a revolution took place not only in the packaging and printing industries, but also in the biscuit market - and, of course, it was driven by packaging. Let us imagine how food products were sold at that time. A small shop, where the grocer paid little attention to the freshness or cleanliness of the goods; where biscuits lay next to fresh (and sometimes not so fresh) fish; where unsanitary conditions prevailed. The customer would order a list of products to take home, having no opportunity to choose items personally, check their weight, or verify their quality - something that, in fact, rarely even crossed their mind.

Then, suddenly, newspapers began publishing articles about a consumer who had bought biscuits that had completely absorbed the smell of fish. And no one was to blame - a young shop assistant simply did not know that an empty fish crate should not be used to cover biscuits.

Another article asked housewives how they could verify the weight of biscuits at the time of purchase - or the quality of soap, or the length of a rope. After reading such pieces, one can imagine that housewives began to reflect on these issues, though previously they had paid little attention to the quality or exact measurements of what they were buying. Yet it is unlikely that many of them were ready to start checking all of this right at the counter.

A third article told the story of a young shop assistant who, due to inexperience, mishandled product storage and ended up selling unfortunate customers biscuits that smelled of cod and

kerosene... This time, however, the article included a small company logo - a symbol resembling the royal orb (which in earlier times had been associated with the redemption of Christ). It is worth noting that this logo, though slightly modified, is still used by the company today.

Of course, all these articles were commissioned - and by none other than a new biscuit manufacturer who quickly recognized the necessity of packaging products in carton.

Thus, the Uneeda company was the first to introduce its product - crackers - in a two-layer package: paper and carton with bright printing. In its advertising, the company emphasized that such packaging would preserve the product in its natural state in any weather. This innovation brought the product tremendous popularity.

Thanks to Uneeda, consumers began to expect more from manufacturers: from that point on, every product was expected to be standardized and protected from external influences.

The release of biscuits in such packaging did not go unnoticed by the manufacturer itself. In March 1900, a short promotional article appeared under the title «Packaging and Biscuit». The article stated:

«The packaging in which Uneeda Biscuit (exclusively owned by the National Biscuit Company) is presented has revolutionized biscuit sales.

Biscuits packaged in boxes have established a new standard in baking.

Every day, the Uneeda Biscuit standard grows stronger. Each batch we bake becomes better than the last.

Every package increases your preference.

*Packaging
as art*

**WHAT MAKES YOU
FUSS WITH BAKING?
Says the Uneeda Boy**

Why don't you let the "Uneeda Bakers" do it for you? Millions of women do . . . The "Uneeda Bakers" make about everything you can think of in the way of biscuit, cookies and crackers . . .

I know you couldn't find anything better to eat in the whole world than the things they use in making their biscuit . . . sugar and flour and eggs—spices—and such like . . .

Anything that's good enough for them *has* to be fat and away the best of its kind . . . I know . . . I'm the Uneeda Boy. And I just wish you could see how *particular* they are with their baking . . . Everything's made *just so*. It's wonderful . . .

Takes a lot of time and fussing—but that's why everything from National Biscuit Company is just exactly right . . . And that's why you can be *sure* of what you're getting if it has the N.B.C. Uneeda Seal. Look at these Uneeda Biscuit . . . try them spread with nice thick jam!



Uneeda Biscuit has been the world's best soda cracker for more than 30 years—because of its extra goodness and flavor, its extra crispness and delicacy. . . . It's the perfect soda cracker—any time, anywhere. NATIONAL BISCUIT COMPANY "Uneeda Bakers"

'Uneeda Bakers'

February 1930 Good Housekeeping

Photo 60. Advertisement for Uneeda

Uneeda Biscuit is not a nine-day novelty, but an everyday necessity».

Uneeda was the first company to employ aggressive advertising - yet its tone remained soft. No one was blamed; everyone was portrayed as acting with good intentions. For example:

«Point to the shelf with the index finger of your right hand and say to the grocer: 'I would like those crackers in the patented package'.

He will understand that you know - barrels and paper bags are a thing of the past».

In this way, the company promoted its vision that products should be packaged in carton and fully protected. Consumers had the right to eat clean biscuits. From that moment on, buyers gained the ability to choose packaged and branded goods - products worthy of trust.

Notably, Uneeda's advertising did not mention the taste of the biscuits at all. Instead, it focused entirely on quality and complete

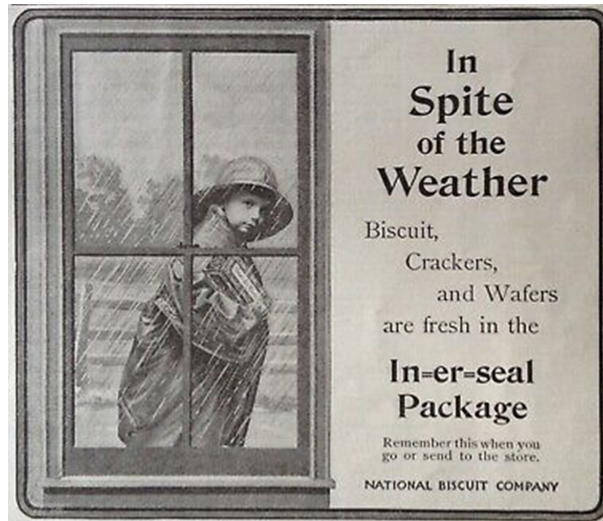


Photo 61. Advertisement for Uneeda crackers, 1900s

protection - from unwanted odors, rodents, moisture, and spoilage. Above all, the message emphasized the importance of standardizing and protecting the product.

Interestingly, crackers and biscuits had been produced in Britain long before by other well-known companies of the time. They were not sold loose but packaged in tin containers. However, Uneeda chose to rely on the emerging trend of carton packaging, the speed of information dissemination, and an aggressive advertising strategy - and they made the right choice. The advertising campaign was so effective that even today many people believe that Uneeda crackers, rather than any other product, were the first to be packaged in carton.

Following Uneeda's success, many companies began replacing tin containers with carton packaging - though this shift was not always justified. The competition for shelf space between tins and cartons continued for another half century.



Photo 62. Advertisement for Uneeda crackers, 1900

*Packaging
as art*



NATIONAL BISCUIT COMPANY

FOR DISPLAY DURING JANUARY ONLY

1123 - 9117 - 1112

Photo 63. Advertisement for Uneeda crackers

Many consider the final victory of carton packaging over paper bags and tin containers in the grocery sector to be the moment when sugar - the last stronghold of bulk goods - was first packaged and placed on store shelves in carton boxes. This took place in the fourth decade of the 20th century.

Uneda did more than create an impressive campaign to capture and transform the biscuit market - it revolutionized the entire food industry. From that point on, anything that could be packaged in carton was expected to be packaged in carton.

In its strategy, packaging design, and choice of colors, Uneda relied primarily on consumer psychology. The little boy in the yellow raincoat became, in a sense, a challenge to society and to the reality of the time. Uneda seemed to awaken the consumer and explain that they deserved something better - a cleaner product, free from impurities, odors, and dirt. The company instilled the idea that everything should be standardized - even the weight of the product. From that moment on, packaging began to be perceived by consumers as a familiar companion - something seen everywhere:



Photo 64. Advertisement for Uneda crackers, 1900s

on every corner, in every grocery store, on every advertisement. Exactly as the revolutionary manufacturer intended.

An interesting fact: as mentioned earlier, the National Biscuit Company

*Packaging
as art*

packaged its biscuits using cartons produced by Robert Gair's company. According to legend, it was Robert Gair's son, George, who gave the biscuits their unique name - Uneeda.

ART NOUVEAU IN PHARMACEUTICAL PACKAGING DESIGN

In most countries around the world, the design of packaging for pharmaceutical and premium goods came to be dominated by the Art Nouveau style (from the French moderne - «modern»). In the United States, it was known as the Tiffany style (after designer Louis C. Tiffany); in France - Art Nouveau and fin de siècle (literally «end of the century»); in Germany - Jugendstil (named after the illustrated magazine Die Jugend, founded in 1896); in England - Modern Style; and in Italy - Liberty style. Art Nouveau sought to combine artistic and utilitarian functions in packaging design, bringing elements of beauty into all aspects of human activity, including everyday life. Art Nouveau is a world of fantasy, myth, and illusion - perhaps somewhat reminiscent of a dreamlike reality... Art Nouveau is characterized by more natural, organic lines, as well as the use of new



*Photo 65. Pharmaceutical packaging, France, 1900.
Art Nouveau style*

*Packaging
as art*



Photo 66. Pharmaceutical packaging, Germany, 1913. Art Nouveau style



Photo 67. Pharmaceutical packaging, France, 1900–1909



Photo 68. Pharmaceutical packaging (Oleum Camphoratum, Laboratoire Labor Sofia), France, 1919

decorative techniques and technologies in packaging production. During this period, round and oval carton packaging became more fashionable than ever, especially when combined with elegant labels.

At the beginning of the 1900s, there was still no single standardized method for producing packaging. Packages were divided into those assembled вручную by pharmacists, pre-made boxes to which labels were applied, and mass-produced packaging. Packaging design also varied significantly, even within the same country. For example, pharmacists who ordered limited batches of labels sought to follow current trends, and their labels were distinguished by uniqueness,

elegance, and charm.

Manufacturers of more affordable medicines, on the other hand, commissioned simpler yet informative labels and packaging. Speaking of carton packaging of the 1900s, it is important to note that manufacturers did not yet have the ability to print directly onto cardboard. Instead, they supplied customers with die-cut carton blanks along with printed paper coverings that contained the design and text. As a result, pharmaceutical packaging consisted of multiple layers - cardboard and paper - which were glued together. In some cases, the paper was simply wrapped around the cardboard, which served as the structural base of the package. The top and bottom of the package were closed in whatever way was most convenient for the pharmacist. While this was not yet a perfect model, it already resembled the packaging we use today.

By the 1900s, carton packaging had ceased to be a rarity or a sign of wealth. Gradually, the segment of luxury goods began to shrink, and manufacturers faced a new challenge: they needed to quickly supply the market with products in packaging that featured sophisticated and distinctive design. As a result, in addition to fashionable design, manufacturers began to use embossed labels - including blind embossing and gold stamping - to decorate pharmaceutical carton packaging. Such labels were often attached both to the packaging itself and to the medicine bottle.



Photo 69. Pharmaceutical packaging (Vin de Gloria, G. Queuille, First-Class Pharmacist), 1900, France



Photo 70. Flat layout of pharmaceutical packaging (Vin de Gloria, G. Queuille, First-Class Pharmacist), 1900, France

*Packaging
as art*



Photo 71. Label for the drug «Heroin», 1910

In 1898, Felix Hoffmann, a German chemist, was developing a remedy for coughs and selected diacetylmorphine as its main active ingredient. That same year, the German pharmaceutical company Bayer AG впервые выпустила препарат от кашля под торговой маркой «Heroin». It is believed that the name «Heroin» derives from the word heroic. From 1898 to 1910, the drug was sold as a cough medicine for children, as well as a substitute for morphine. At the time, it was thought that heroin produced a mild sense of euphoria with minimal effects on behavior and intellect (provided it was used for a short period).

For quite a long time, doctors failed to notice the harmful or negative effects of heroin on patients. Only later was it discovered that some «patients» were consuming large quantities of the cough medicine without actually suffering from any illness.

In 1913, the production of heroin was discontinued by



Photo 72. Label for the drug «Heroin», 1910



Photo 73. Bottle of «Heroin» produced by Bayer, 1901

Packaging
as art

Bayer AG.

Between 1925 and 1930, a total of 34 tons of the drug were sold worldwide.

From around 1910, gravure, offset, and screen printing began to gain popularity. During this same period, Heroin received carton packaging, along with a redesigned label.



*Photo 74. Carton packaging for the drug
«Heroin», 1910*

*Packaging
as art*



Photo 75. Carton packaging for the drug «Cocaine», 1880s

In the design of pharmaceutical carton packaging, the United States tended to favor a simpler approach. Fashion trends had little influence on packaging design; instead, functionality was the priority. Typically, the packaging featured the name of the drug, occasionally accompanied by simple, unremarkable illustrations or even photographs of the manufacturers. Another interesting detail: in the United States, packaging was produced exclusively in rectangular shapes.

Since the 1880s, the drug cocaine brought about a revolution in the field of medicine. However, its history deserves closer examination, as it was attributed with a wide range of supposed лечебных свойств.

In 1859, at the request of Wöhler's laboratory, Dr. Karl Scherzer brought a chest of coca leaves from Peru and handed it over to chemist Albert Niemann. It was Niemann who, after isolating the alkaloid, gave the substance its name - cocaine.

That same year, Italian doctor Paolo Mantegazza, returning from Peru with coca leaves, began studying their effects on the human body, conducting his experiments on himself. He later described the sensations experienced while chewing coca leaves in his book «On the Hygienic and Medicinal Virtues of Coca». Among the possible uses of coca, he noted: «in combating tongue coating and

gas, as well as for whitening teeth».

In 1879, Karl Koller pioneered the use of cocaine in ophthalmology, while Heinrich Quincke applied it as an anesthetic in spinal treatments.

From the 1880s onward, cocaine revolutionized anesthesia and began to be regarded by the medical community as a kind of panacea. Hundreds of cocaine-containing medicines appeared on the market. Cocaine was recommended as a remedy for strengthening children's health, as «food for the brain», and generally as a cure for virtually all ailments.

The medical interest in cocaine was sparked by Theodor Aschenbrandt, who in 1883 recommended its use for Bavarian soldiers, citing its ability to increase endurance. Following the publication of his work, Sigmund Freud also became interested in studying the effects of cocaine on the human body. In 1884, he began his own research. Based on his findings, Freud promoted cocaine as a treatment for depression, various neuroses, syphilis, alcoholism, morphine addiction, and sexual disorders, and he actively incorporated it into his psychotherapeutic practice. Later, Sigmund Freud wrote the following about cocaine:

«A rise in spirits and a prolonged sense of euphoria, indistinguishable from the normal euphoria of a healthy person. You notice an increase in self-control, a surge of vitality, and enhanced productivity. In other words, you remain a completely normal individual and soon no longer believe that you are under the influence of the drug...

Prolonged and intense physical work can be performed without any

*Packaging
as art*

feeling of fatigue. The result is achieved without any of the unpleasant side effects typical of alcohol. There is absolutely no craving for cocaine - neither after the first use nor after subsequent applications.»

It is worth noting that Freud continued using narcotic substances well into adulthood and was later subjected to severe criticism for promoting them.

The production of cocaine was undertaken by major pharmaceutical companies. Some of them sold cocaine in the form of injectable solutions, complete with a needle. Advertising campaigns claimed that the product would «replace food, make the coward brave, the silent eloquent... and render the suffering insensitive to pain».

*«Marketing professionals have long talked about the five P's of marketing. In reality, there are more than five, and every marketer has a few personal favorites. Here are some of them:
- Product, - Pricing, - Promotion, - Positioning, - Publicity, - Packaging, - Pass-along, - Permission»*

*Seth Godin,
american entrepreneur, economist, and information technology
specialist*



Photo 76. Pharmaceutical packaging (Raiford Iode, E & S. Fougere), USA, 1917

From around 1910, American newspapers began to feature a large number of advertisements for medicines, news articles, and short stories in which pharmaceutical carton packaging was mentioned. Several interesting points can be noted:

- Advertisements educated consumers about the medicinal properties of various products, often accompanied by artistic illustrations;
- News articles described the carton packaging and the pills in great detail. During my research, I came across references to pills of various colors - white, red, and even black;
- In fictional stories, the packaging itself almost became one of the main characters, so vividly and

thoroughly it was described. Most often, these were one- or two-color boxes with handwritten instructions from a doctor on how to use the medicine.

Take, for example, the pharmaceutical packaging for iodine from 1917, produced in the United States. Today, it is easy to find packaging of all kinds of shapes - from triangular to multi-angled designs with eight or more sides. But in 1917, such a construction was something truly remarkable and unique. The packaging was specifically designed to match the shape of the bottle, precisely following its contours.

and in Russia can be traced back to the mid-19th century, when the Industrial Revolution brought about profound changes in manufacturing. Industry underwent technical modernization, and printing houses were equipped with the latest machinery.

The growth of industrial production, the rapid development of private enterprise, and rising literacy rates coincided with advances in printing and the emergence of a new artistic movement - Art Nouveau. The combination of graphic Art Nouveau and lithography has been compared to an explosion of unprecedented force, disrupting the slow evolution of advertising.

Vladislav Tolmatsky - an art historian, expert, and researcher of the Russian antiques and art market - wrote in one of his articles: *«One should not, however, overestimate the artistic value of these rare boxes, packages, and wrappers - they were, as a rule, designed by rather mediocre artists. More prominent macmepa, those with established reputations, oddly avoided such commissions, considering them a 'lower genre' ... This explains the noticeable professional shortcomings: a certain simplicity in drawing and composition, and excessive brightness in color schemes».*

At the same time, there are known examples of packaging design created by renowned masters of the Russian style, such as Viktor Vasnetsov and Ivan Bilibin. Their work elevated decorative design to the level of other forms of art.

From the mid-1890s onward, the emergence of a new style - Art Nouveau - became evident in our regions as well. In search of new forms, artists turned to nature, which became the source of the distinctly organic shapes that defined the fluid character of the style.

*Packaging
as art*

The main features of Art Nouveau in Ukraine and Russia included refinement, elegance, and a sense of spiritual depth in imagery. Colors were most often soft, muted, and pastel, while lines were smooth, flowing, and intricate.

Industrial growth and increasing competition pushed manufacturers to create attractive additions to their products - postcards, inserts, paper labels, small gifts, and more. One of the most well-known companies that sold its confectionery products in unusually designed packaging was the Abrikosov & Sons Partnership. The Abrikosov & Sons Partnership understood as early as 1882 that packaging had to «sell» their product - influencing the consumer through color, form, design, and the text displayed on it. For this reason, the company devoted exceptional attention to packaging design. They employed more than 30 specialists dedicated exclusively to packaging - from design to assembly. Each box was handcrafted and represented a true work of art.



Photo 77. Packaging for vanilla chocolate by the Abrikosov & Sons Partnership, 1895

The design of the packaging also depended on the value of the product itself. More expensive confectionery was presented in more luxurious packaging, conveying a sense of wealth and refinement. Color played an especially important role in packaging design. Here, red was considered the color of fire and was perceived as something warm; shades of blue were associated with cold; yellow corresponded to acidity, while gray was seen as dry.



Photo 78. Packaging for pastila by the Abrikosov & Sons Partnership, 1890s

In Russia, pharmaceutical packaging was typically round in shape, and its design did not stand out for originality. Packaging manufacturers lacked the ability to produce rich or highly varied labels. As a result, most labels featured simple, light floral patterns, and nearly all pharmaceutical packaging looked quite similar. However, the situation was entirely different when it came to packaging for soap and perfumes.

*Packaging
as art*

The first perfume factory in Moscow was established in 1843 by the French entrepreneur Alphonse Rallet. By 1910, it was producing more than 675 product lines. Until 1917, the factory A. Rallet & Co. served as a supplier to the Imperial Court. Many perfumers sought to attract customers in various ways, and packaging proved to be one of the most effective. Few people know that before the Revolution of 1917, the design of packaging and labels was often entrusted to renowned artists such as Ivan Bilibin, Mikhail Vrubel, Alexander Apsit, and the brothers Viktor and Apollinary Vasnetsov, among many others.



Photo 79. Pharmaceutical packaging, Russia, 1900



Photo 80. Examples of labels created by famous artists, 1910–1917

*Packaging
as art*

22 Reasons to Choose Carton Packaging:

1. Sells your product through its design
2. Communicates your company's culture
3. Enables better communication with the consumer
4. Durable
5. Can take virtually any shape required by the customer
6. Design changes are relatively inexpensive
7. Cost-effective to produce
8. Allows for a wide range of post-printing processes
9. Protects contents during transportation
10. Offers six sides for free advertising
11. Attracts attention
12. With great design, can be visually striking - even considered a form of art
13. Has a long shelf life
14. Serves as a key element of branding
15. Very lightweight
16. Takes up little storage space (when flat-packed)
17. Can be recycled for profit after use
18. Environmentally friendly
19. Easy to dispose of
20. Few other types of packaging have books written about them

1920 – 1939

«Simplicity is the ultimate sophistication»

Leonardo da Vinci

«The roaring, wild, and crazy twenties» - this is how the 1920s were described in North America, Great Britain, Germany, and France. Life was rapidly returning after the most devastating war Europe had ever experienced at that time. This period saw a number of major breakthroughs across many fields, with far-reaching consequences. Social changes began in major cities such as Chicago, New Orleans, London, New York, and Paris, while Germany was still struggling in the aftermath of the war.

The pharmaceutical industry also experienced significant growth. The pharmaceutical industry developed especially

*Packaging
as art*

rapidly in Switzerland and Italy, followed by Great Britain, the United States, Belgium, and the Netherlands. During this same period, legislation began to emerge regulating the testing and approval of medicines for use. It became possible to legally distinguish between prescription and over-the-counter drugs.

At the same time, it became clear that the packaging industry was not just a major sector of the economy, but something like a locomotive driving economic growth. Every manufacturer sought to package their product in cardboard - this was especially true for companies in the food, pharmaceutical and cosmetics industries. For them, this practice became essential. Almost no product existed without carton packaging, and even if the product itself was not directly packaged, it was at least transported in it. As a result, it is no surprise that many industrial designers began to actively engage in the creation and design of packaging - from metal to cardboard.

Between 1920 and 1929, the United States experienced remarkable financial growth, emerging as a leading global power. This period was perceived by contemporaries as a time of radical change and a break from the traditional values of the Victorian era. This spirit of transformation influenced people's lifestyles, art, and, it seems, the design of pharmaceutical carton packaging as well. The Art Deco style, which originated in France and dominated Europe, reached America by the mid-1920s and gradually began to influence the design of carton packaging.

By the mid-1920s, a wide variety of products were being sold in

packaged form - including towels, automobile tires, fishing bait, bacon, lard, and more. At the same time, pharmaceutical manufacturers clearly understood that packaging created new opportunities not only for selling products but even for creating entirely new ones.

In 1928, Richard Franken and Carroll Larrabee published a book titled "Packaging That Sells." According to a professor of advertising psychology at New York University and editor of Printers' Ink, for a company introducing its product in packaging for the first time, the most important factor was not the quality of the product or even the packaging itself, but the very fact of its release. The mere presence of packaging overshadowed all other considerations and set the product apart from competitors. However, as Franken and Larrabee noted:

«In reality, the competitor has an advantage. He understands that simply creating packaging is not enough - it must be good packaging... The new container satisfies not only a practical need but also the need to sell the product... It decorates the product on the shelf and assists the seller. In other words, it does not merely package - it advertises»

For those who introduced packaging into their product design, there was no alternative but to continue advancing in design.

The relationship between «packaging» and «advertising» is direct, clear, and fundamental: advertising informs consumers about a product - packaging sells it.

«In the 1910s and 1920s, the advertising function of packaging gained widespread recognition around the world, and design became far more appealing, absorbing the artistic trends of its time. However, the discipline of marketing expanded beyond the limits of advertising and transformed

*Packaging
as art*



Photo 81. Pharmaceutical packaging, England, 1920s

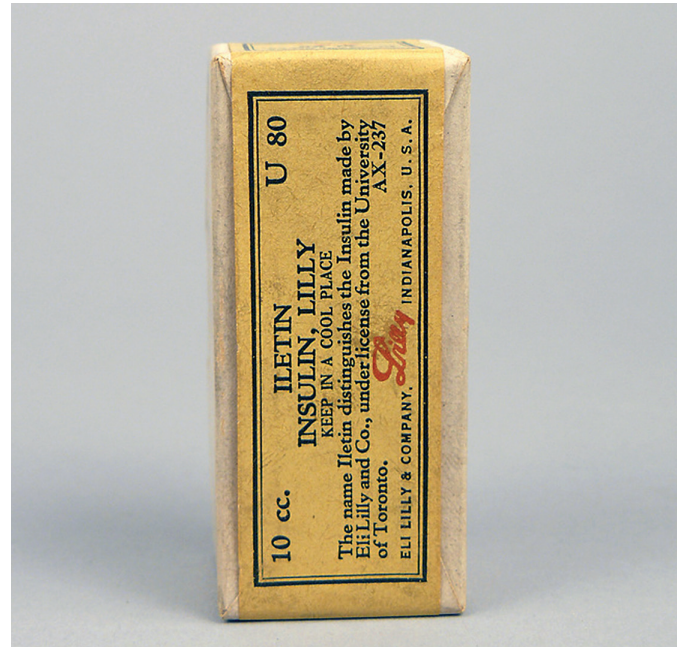


Photo 82. Pharmaceutical packaging, USA, 1930

everything that was produced, sold, and used. An important manifestation of this trend was industrial design.».

– Thomas Hine, The Total Package».

It is worth noting that, unlike in the 1900s, packaging itself was rarely featured in product advertising - appearing in only about 7% of cases.

In pharmaceutical packaging design, bold geometric elements became increasingly common, along with the use of halftones, muted color palettes, ethnic geometric patterns, and, at the same time, expensive materials or complex color schemes. Many designers of that era gained worldwide recognition precisely because their work sought to inspire admiration for the world and help their countries recover from the Great Depression. Printers, in turn,

aimed to incorporate contemporary fashion trends into packaging design.

In the 1920s, some of the first studies on the psychology of color perception were conducted. These studies led to the emergence of early color stereotypes. For example, dark colors began to be perceived as «heavy», bright packaging - especially yellow - as inexpensive, while a small box was often associated with high value. If previously packaging design could have been entrusted to, say, the boss's wife, this approach soon changed dramatically. From that point on, packaging design became the responsibility of professional designers.

The following statement by Clayton Lindsay Smith in his 1923 book «The History of Trademarks» helps illustrate the powerful influence early advertising had on people:

«The advertising of the 'B.V.D.' trademark, within just a decade, fundamentally changed the culture of wearing underwear in several countries. Few are willing to admit that advertising can make them change their underwear. This suggests that only a small number of people truly understand how vulnerable their minds are».

In the 1920s, it became clear that the packaging industry had grown to enormous proportions, becoming one of the largest sectors of the economy. The leaders in packaging innovation remained the pharmaceutical, cosmetic, and food industries. However, it is important to note that there was virtually no field in which packaging was not used – at least for transporting products.



Photo 83. Pharmaceutical packaging, USA, 1925

*Packaging
as art*



Photo 84. Pharmaceutical packaging, France, 1920



Photo 85. Pharmaceutical packaging, France, 1920



Photo 87. Pharmaceutical packaging, USA, 1925



Photo 86. Pharmaceutical packaging, USA, 1930

Packaging
as art



Photo 88. Pharmaceutical packaging, Germany, 1930



Photo 89. Pharmaceutical packaging, Hungary

«Simplicity is not a goal. It is the byproduct of a good idea and modest expectations»

*Paul Rand,
American art director and graphic designer, best known for his
corporate logo designs, including those for IBM, UPS, Enron,
Morningstar, Inc., Westinghouse, ABC, and NeXT.*

The well-known company Johnson & Johnson was producing bandages, adhesive plasters, and other medical supplies as early as 1921. The original packaging for adhesive plasters was a rectangular carton box. It is worth noting that a consistent design style could be observed across all packaging - both tin and carton. The packaging itself was also constructed in a way that was unusual for its time. One could notice a convenient cut-out at the front of the box, designed for easier opening - a feature that was quite uncommon in packaging of the 1920s.

In 1922, Frederick Banting and John Macleod of Canada developed insulin, which became one of the most important medicines produced on a mass scale. For this groundbreaking discovery, they were awarded the Nobel Prize in 1923. The patent for the invention was sold to the University of Toronto for just one dollar. The photograph shows the very first carton packaging created for the drug.

Unlike many other packages of the time, insulin packaging did not reflect prevailing design trends. On the contrary, it was simple, строгая and minimalist, emphasizing the importance and highly individualized use of the medicine. Most likely, this can be explained by the fact that insulin was primarily used in hospital settings and was not intended for the mass consumer market. For this reason, just as today, products intended for hospital use were designed with the



Photo 90. Carton packaging for adhesive plasters by Johnson & Johnson, 1900

*Packaging
as art*



Photo 91. Pharmaceutical packaging for the drug «Insulin», 1923

Photo 92. Pharmaceutical packaging for the drug «Penicillin», 1928

simplest and most straightforward packaging.

By 1928, Scottish professor Alexander Fleming had discovered a new drug - penicillin.

Today, society fully recognizes the importance of this discovery for medicine. However, for a long time, the drug remained unnoticed, as its nature and application did not fit within the prevailing concept of strengthening the immune system at the time. It was only 13 years later that penicillin began to be used for therapeutic purposes.

In that same year, 1928, specialized design studios were already actively operating in the packaging industry, ready to redesign or create entirely new packaging for any product. This development was driven, at least in part, by the clear goal of increasing product sales. However, such investments required significant financial resources from companies, while the return on these efforts took far too long for most businesses. As a result, once a packaging design was adopted, it tended to remain unchanged for many years,

leaving no room for errors in execution or concept. Packaging had the power to determine sales outcomes - either boosting them or driving them down. In addition to the slow return on investment, consumers themselves were often reluctant to accept a new design for a product they already loved - even if the product itself remained unchanged.

This is the paradox of the packaging industry: on one hand, packaging production played a crucial role in building national economies; on the other, industrial designers were often left on the sidelines. They would create and approve a design intended to last for years. As a result, many talented graphic designers who had established agencies focused on packaging were forced to shift to other industries. In many cases, they retained only a small division - sometimes just a single employee - dedicated to packaging work. What once seemed like a highly profitable and promising field - the creation of packaging aesthetics - ultimately failed to meet expectations. It proved to be too costly, too complex, and, in many cases, insufficiently востребованным.

If we speak about packaging created by master designers achieving remarkable success, then it is essential to turn to the story of Kodak.

As mentioned earlier, the 1920s saw a surge in the American consumer market. Yet only a few companies were ready to embrace what could be called «commercial modernism». Kodak, however, was one of them - and they made the right decision.

In 1928, the company approached industrial and advertising

*Packaging
as art*

designer Walter Dorwin Teague with a request to create a gift carton package in the Art Deco style. The packaging was to be bright, colorful, and feature a cubist design on the camera side. Moreover, each camera model required its own unique design. Teague's New York-based firm immediately began developing packaging for the Baby Brownie, Beau Brownie, Bantam Special, and Kodak Super 620 models. Each of these packages became a true gem of modernist design.

Critics of the time argued that fashionable cubic imagery was more of an amusement for the elite and did not reflect the tastes of ordinary consumers. Therefore, they believed it was doomed to fail and quickly disappear. However, Teague, as one of the leading designers of his era, was also among the pioneers of modern visual identity. Regardless of criticism, this bold visual language became a clear signal of the company's forward-looking vision and refined sense of style.



Photo 93. Gift carton packaging in Art Deco style, 1928

A few years later, in 1935, despite its great popularity, Teague's decorative palette of gold, black, and white, along with modernist typography and cubist patterns, gave way to a new color scheme - yellow and red - on updated packaging. Nevertheless, the packaging created by Teague's team remained in the hearts of design enthusiasts for many decades.

At the end of 1929, the stock market crash abruptly brought the «golden» twenties to an end. Millions of people were left without means of livelihood, unemployment surged, purchasing power dropped dramatically, construction in many countries came to a halt, and the pharmaceutical industry fell into deep decline.

The 1930s came to be known as the Great Depression. Yet, as Thomas Hine wrote: *«disciplined and professional industrial managers, along with industrial designers, became the hope for economic recovery - though in a new form»*.



Photo 94. Carton packaging for a Kodak camera, 1928



Photo 95. Carton packaging for a Kodak camera, 1935

*Packaging
as art*

From the 1930s onward, a new role began to emerge within companies - the brand manager. This position was responsible for coordinating all decisions related to production and marketing. These specialists quickly became key figures in shaping marketing strategies.

In 1935, at a conference addressing packaging design, designer Ben Nash expressed the following idea: *«Consumers are more interested in products whose packaging fits their worldview than in those that boast of being made in the largest factory on earth. Yet many manufacturers are so absorbed in their work that they fail to notice this»*

In 1936, Alvin Dodd, president of the American Management Association, stated: *«Manufacturers have come to realize that a 'little assistant' made of glass, wood, paper, or metal has become their most tireless salesperson - one that never grows weary and never takes a day off. This salesperson, radiating selling power and silently urging, 'Buy me!' - is packaging».*

Packaging, on the one hand, was a narrow specialization, yet on the other, it concerned everyone. The profitability of an enterprise depended on it. A great deal depended on the manager, who was responsible for ensuring the very existence of packaging, the methods of filling it, and its attractive design. The appearance of packaging had to stimulate sales in conditions of intense competition - something especially characteristic during times of economic crisis.

In our country during the 1920s, this was a period of the birth of a new way of life - a search for new values and forms that reflected the spirit of the time. Among those who stood out most in this era

were artists such as Alexander Rodchenko and Lyubov Popova - founders of Constructivism - as well as the avant-garde artist Kazimir Malevich.

A true new stage in Russian advertising began with the work of the creative duo known as the «advertising constructors» - Mayakovsky and Rodchenko. This marked a shift toward a new approach entirely grounded in Constructivism. Gradually abandoning traditional visual methods, they embraced rationalist principles.

Packaging absorbed these same principles of working with form and surface that defined Constructivism: strict lines, clarity of composition, geometrization of forms, flat images of figures, laconic use of typography, where the font becomes part of the graphic image.

In 1924, perfumer Auguste Michel, who worked at the Brocard factory, created the famous fragrance «Red Moscow». Some believe that the perfume had actually been developed before the Revolution under the name «The Empress's Favorite Bouquet».

The packaging for Red Moscow reflected its name and featured a rather minimalist design: a red-orange box with a simple inscription of the product name.

When discussing the history of carton packaging in the 1920s–1930s, it is impossible not to note with some regret that in the USSR, the art of pharmaceutical carton packaging design was effectively removed from everyday life for many decades. As a result of widespread nationalization, carton packaging was regarded as an «element of bourgeois luxury».

During the era of developed socialism, packaging became

*Packaging
as art*



*Photo 96. Packaging for the fragrance «Red Moscow»,
1924*

minimalistic, even austere. It served only two functions: the storage and transportation of medicines. The requirements for packaging in the Soviet Union were also minimal - strength and reliability.

In the 1930s, the primary focus shifted from product advertising to ideological agitation and propaganda. As a result, strict constructivism gave way to more figurative imagery, though still under strong ideological control. From this point onward, the paths of development for design in general - and graphic design, including packaging design, in particular - diverged significantly.

Packaging became widely recognized as the primary driver of product sales. Rapidly developing supermarkets, along with slogans such as «Serve yourself and save!», активно использовали упаковку для увеличения продаж. Even today, in American films, one can often see pyramids of packaged goods collapsing at the most inconvenient moment for the protagonist. This visual element has its origins in the 1930s, when such pyramids were first constructed in supermarkets to attract consumer attention to specific packaged products - and they proved remarkably effective.



Photo 97. Pharmaceutical packaging, Russia, 1920s



Photo 98. Pharmaceutical packaging, Russia, 1930s

*Packaging
as art*

1940 – 1949

«Simplicity is a necessary condition of beauty»

Leo Tolstoy

The period from 1940 to 1949 became one of the most difficult eras for most countries around the world. The Great Depression in the United States came to an end only with the onset of World War II, which had a profound impact on the nations and peoples of Europe, Asia, and beyond. The leading global powers became the United States and the Soviet Union.

In 1941, penicillin - originally discovered in 1928 by Alexander Fleming - was used for the first time to treat bacterial infections. During his research, Fleming observed that a colony of mold had grown on a Petri dish containing bacteria. The bacterial colonies



Photo 99. Pharmaceutical packaging «Penicillin», 1941



Photo 100. Pharmaceutical packaging, France, 1940s

surrounding the mold became transparent due to the destruction of their cells. This led to the isolation of the active substance that destroyed bacteria, which was later named penicillin. In September 1945, as Fleming was expected to arrive in Paris and was being rightfully celebrated, local journalists wrote: «*He did more to defeat fascism and liberate France than entire divisions*». This statement clearly illustrates the immense importance and impact of this discovery for humanity.

Alexander Fleming himself said of his discovery: «*When I woke up at dawn on September 28, 1928, I certainly didn't plan to revolutionize medicine by discovering the world's first antibiotic or bacteria killer. But I suppose that's exactly what I did*».

During the war years, all efforts and funding were directed toward military needs. Naturally, no one was concerned with what packaging should look like.

As a result, the importance of packaging design, fashion, and color receded into the background. The primary focus shifted to the development of new, effective medicines for treating both wounded soldiers and civilians.

*Packaging
as art*

«Let me say right away that developing product packaging is an extremely complex, multidisciplinary task. First and foremost, it is a marketing challenge - not a design one, as some manufacturers mistakenly believe.»

*Alexey Ivanov,
writer, quoted from the book «Free Advertising. Results Without a
Budget»*



Photo 102. Pharmaceutical packaging, Canada, 1940s



Photo 101. Pharmaceutical packaging, USA, 1940



Photo 104. Pharmaceutical packaging, USA, 1940



Photo 103. Pharmaceutical packaging, USA, 1940s

Packaging
as art

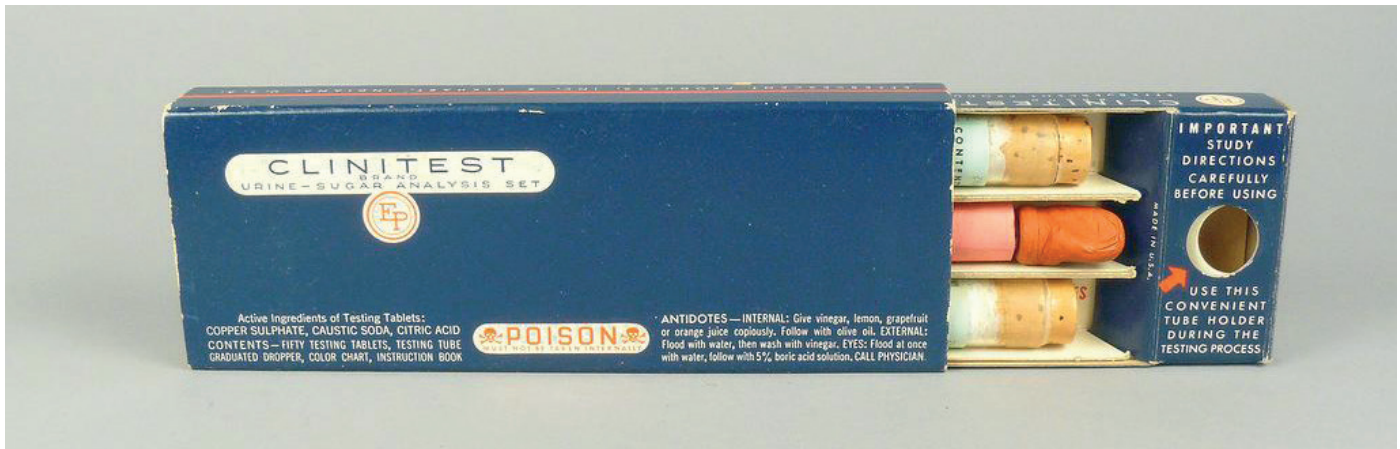


Photo 105. Pharmaceutical packaging, USA, 1942

Pharmaceutical factories that continued operating were focused on the rapid production of drugs, as well as the creation of new ones - regardless of whether they were packaged or not. In response to these global events, there was a significant increase in the development of new painkillers, antispasmodics, and psychostimulants.

THE SWISS SCHOOL OF GRAPHIC DESIGN

The first postwar decade was marked by new global development trends. International trade began to expand, manufacturers from different countries entered foreign markets, and growing information flows turned the world into a global community. During this time, producers came to understand the need to identify their products and create a distinct visual identity to ensure brand recognition. This is when the Swiss school of graphic design emerged, introducing a unique form of the new International Typographic Style.

Because Switzerland maintained its neutrality during World War II, it was able to continue its internal development. As a result, by the mid-20th century, an entirely new and distinctive approach to pharmaceutical carton packaging design had been formed there. The postwar world was introduced to a strict, logically structured style. The new typographic school was based on key principles such as simplicity and functionality, documentary photography, clear composition, the use of negative space, asymmetry, readability (sans-serif typefaces), economical design, and simplicity of form. An important principle of the Swiss style was universality - meaning that the same symbols could be understood consistently by different audiences. At first glance, packaging designed in the Swiss style stands out through its balance of elements, strict geometry, abstract patterns, and unusual color combinations. The Swiss style gained widespread recognition among designers due to its novelty, clarity, speed of perception, universality, strong



*Packaging
as art*

focus, and distinct visual language. It made communication with the consumer simple and effective.

In the Swiss style - also known as the International Style - typography plays a crucial role. Only sans-serif fonts are used, without decorative strokes. Typically, a single typeface is applied throughout the entire design. The fewer fonts used on packaging, the easier it is for consumers to read. This approach creates the impression that the information on the package is communicated by a single, unified voice, which increases trust in the content.

The pharmaceutical industry quickly adopted the International Style in packaging design. It allowed manufacturers to clearly communicate the purpose of a product. For example, if a medicine was intended to relieve a sore throat, the packaging might feature an image of a person holding their throat. This made it easier for consumers to identify the right product among many others, significantly simplifying their choice.

Representatives of the Swiss style paid special attention to color. They believed that color itself did not carry intrinsic meaning and did not directly attract consumers - it served merely as a tool to draw attention. Text was typically set in black, while backgrounds remained bright. The principle was simple: less color - easier perception of information - greater trust.

On most pharmaceutical carton packages, photographs of people were used instead of graphic illustrations. Swiss designers believed that the presence of a photograph increased consumer trust

«What you see on the packaging should not be advertising, but information. The elements of packaging must have a logical hierarchy, and none should compete with another. If you've created packaging that everyone starts copying - that's good packaging.»

*Richard Gerstian,
co-owner of one of the leading American firms specializing in
packaging design*

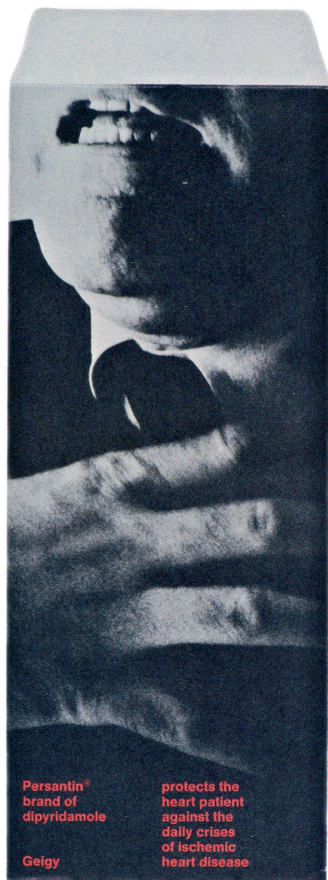


Photo 106. Pharmaceutical packaging by J. R. Geigy AG

*Packaging
as art*

in the medicine. Photography was perceived as truth - something that could be trusted without question.

Special attention should be given to one of the oldest pharmaceutical companies, J. R. Geigy AG, founded in Switzerland in 1758 (in 1996, Geigy merged with Sandoz to form Novartis).

Unlike many other pharmaceutical companies, Geigy quickly recognized the impact of packaging on product sales and paid close attention to the design of its printed materials and carton packaging. As early as 1948, the company established a graphic design department, which introduced a now widely recognizable corporate identity.

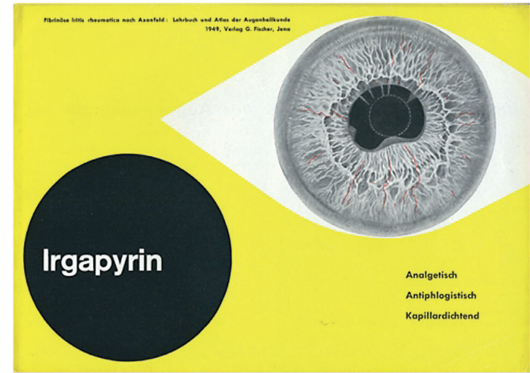
Even earlier, in 1941, the company had created an advertising department led by René Rudin. Its primary mission was to position the company in the domestic market and develop advertising campaigns.

In 1944, the department faced a new challenge - the development of a corporate identity. In this process, equal importance was given to the perspectives of designers, marketers, psychologists, and technologists. Rudin placed great emphasis on the artistic quality of advertising materials, as well as on adherence to contemporary art movements.

In 1948, Max Schmid became the art director of the advertising department. He eliminated the excessive use of illustrations in both advertising and packaging, replacing them with a more symbolic and emblematic visual language. This approach proved highly effective in promoting and distributing the company's pharmaceutical products.



*Photo 107. Pharmaceutical packaging,
design by Nelly Rudin, 1953*



*Photo 108. Pharmaceutical packaging by J. R. Geigy
AG, 1949*

Until the 1950s, this style periodically gained and lost supporters.
Its peak, however, came in the late 1940s and early 1950s.

*Packaging
as art*

1950 – 1959

«Packaging is already the product»

Richard B. Franken

Across the world, systematic scientific research was advancing, medical knowledge was improving, and production technologies were becoming more refined. During this period, a vast number of new medicines were developed and widely adopted, including cortisone and various cardiovascular drugs.

Across the world, systematic scientific research was advancing, medical knowledge was improving, and production technologies were becoming more refined. During this period, a vast number of new medicines were developed and widely adopted, including cortisone and various cardiovascular drugs. By 1950, many companies

had come to recognize the critical importance of branding. A brand was understood as a set of perceptions, associations, and emotions connected to a product in the minds of consumers. This period also marked the peak of the Swiss style in pharmaceutical carton packaging design. Leading Swiss companies turned to outstanding graphic designers such as Karl Gerstner, Josef Müller-Brockmann, Max Schmid, Nelly Rudin, and others for help with packaging design.

European countries and those in the East also sought to follow the new trend in packaging design, incorporating elements of the Swiss style into their work.

But not France... Most French designers remained faithful to their own style.



Photo 109. Pharmaceutical packaging by «J. R. Geigy AG», 1956



Photo 110. Pharmaceutical packaging by "J. R. Geigy AG"

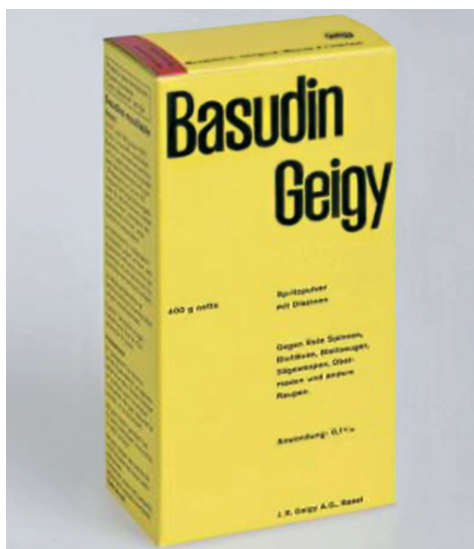


Photo 111. Pharmaceutical packaging by «J. R. Geigy AG», 1954



Photo 113. Pharmaceutical packaging by «J. R. Geigy AG», 1956



Photo 115. Pharmaceutical packaging «Ciba», Sweden



Photo 112. Pharmaceutical packaging "Ciba," Sweden



Photo 114. Pharmaceutical packaging, 1950s



Photo 116. Pharmaceutical packaging, Israel, 1950s



Photo 117. Pharmaceutical packaging by «J. R. Geigy AG», 1958



Photo 118. Pharmaceutical packaging (Otsuka Pharmaceutical Co., Ltd), Japan, 1950s



Photo 119. Pharmaceutical packaging (Otsuka Pharmaceutical Co., Ltd), Japan, 1950s



Photo 120. Pharmaceutical packaging (Otsuka Pharmaceutical Co., Ltd), Japan, 1950s



Photo 121. Pharmaceutical packaging (Otsuka Pharmaceutical Co., Ltd), Japan, 1950s



Photo 122. Carton pharmaceutical packaging, USA, 1950



Photo 123. Carton pharmaceutical packaging, USA, 1950



Photo 124. Pharmaceutical packaging, France, 1950s

At the same time, in the United States, packaging designers were increasingly inspired by European abstract art. European modernism - with its abstraction, asymmetry, and dynamism in typographic composition - gained significant attention after World War II, as many artists emigrated from Nazi Germany to the United States. A legend of packaging design, whom we will discuss

*Packaging
as art*

later, once described this new movement - modernism - in the following way: «It is integrity, honesty, the absence of sentimentality and nostalgia. It is simplicity and clarity. That is what modernism means to me...»

The principles of good design formulated by German industrial designer Dieter Rams were not originally intended for pharmaceutical carton packaging, but they clearly reflect the design trends of the 1950s–1960s:

- Good design is innovative
- Good design makes a product useful
- Good design is aesthetic
- Good design makes a product understandable
- Good design is unobtrusive
- Good design is honest
- Good design is durable
- Good design is thorough down to the last detail
- Good design is environmentally friendly
- Good design is as little design as possible

In the USSR, the pharmaceutical industry began to develop especially rapidly. Many factories were re-equipped, restored, and new pharmaceutical plants were built. The range of medicines expanded significantly. Unfortunately, these changes did not extend

to the design of pharmaceutical carton packaging. In this area, everything remained largely the same. Packaging continued to be simple - made from recycled cardboard with dull printing. It was highly standardized, making it difficult for consumers to distinguish one medicine from another.

In the Soviet Union, packaging design was handled by artists. However, there was no discussion of branding or the Swiss style. It is worth noting that in the 1950s, a large number of packaging designs were created by the well-known Soviet artist Alexander Panaiotovich Andreadi. He also created posters for vitamins, caviar, canned goods, cigarettes, creams, and perfumes. Andreadi was one of the leading artists at the Soyuzpishchepromreklama combine. His style stood out for its plasticity, painterly quality, and a certain lyrical tone that he brought even to the most ordinary objects.



Photo 125. Pharmaceutical packaging, Russia



Photo 126. Pharmaceutical packaging, Russia

While in the Soviet Union packaging was only beginning its path toward design, in the rest of the world it was developing at a rapid pace. Increasing importance was placed not only on the design

*Packaging
as art*

of packaging, but also on the new functions it began to acquire. At first glance, carton packaging was meant simply to protect a product from damage. However, it soon took on an additional role - informing consumers about the properties and purpose of a medicine through images and informative text printed on it.



Photo 127. Advertising posters created by A. P. Andreadi, 1950s

According to data from Google Books Ngram Viewer, the term «pharmaceutical package» began appearing in printed publications in 1956 and continues to be used today to describe packaging for medicines.

In 1958, one of the most significant events in the industry took place: the first Interpack exhibition was held in Düsseldorf. A total of 255 companies from 9 countries participated, showcasing their products. The exhibition attracted 32,544 visitors from 42 countries. Today, Interpack remains one of the most prominent and widely attended trade fairs, held every three years. For comparison, in 2014 it welcomed visitors from 120 countries.

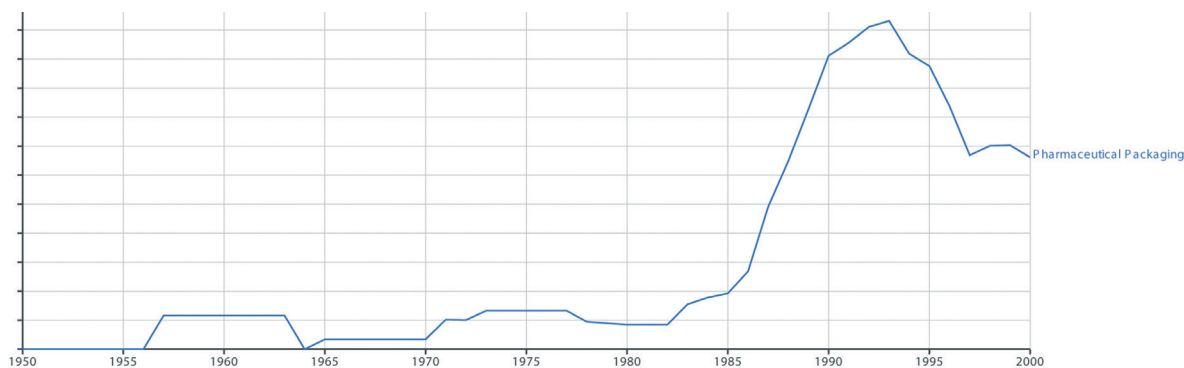


Fig. 3. Google Books Ngram Viewer graph of the use of the phrase «pharmaceutical packaging»

1960 – 1969

*«“If the design inspires someone
to pick the package off the shelf - it's done right»
Sam Stone, «Identica»*

Positive changes in the global economy became evident due to technological progress. Competition in the market intensified, and consumers gained the ability to choose. As a result, the 1960s saw significant changes both in the forms in which medicines were produced and in the design of secondary packaging. Since companies now had to compete for the consumer, packaging needed to maintain its original appearance for a long time. With the emergence of the first supermarkets in Europe, as well as pharmacies with large display windows, it became essential for pharmaceutical companies that carton packaging could also perform a display

function.

Many modern graphic designers working in pharmaceutical carton packaging refer to this period as the “Golden Age of Packaging.” In the 1960s, the most successful packaging designs did not rely on ultraviolet coating, foil stamping, or embossing. Instead, they focused on the communicative power of packaging. Packaging had to clearly and simply explain its benefits to the consumer. Designers attracted attention through simplicity - which, at the time, was already unusual and refreshing to the eye.

In the 1960s, influenced by the spread of the Swiss style, the purpose of medical products was often conveyed either through symbolic depictions of parts of the human body or through metaphorical compositions that could be instantly understood. One such metaphorical example is the packaging for the antidepressant Pertofran (incidentally, one of my favorite designs). Against a white background, a heavy black weight with a thick chain is depicted, immediately drawing attention. This image effectively represents the burden of depression and clearly communicates the purpose of the medicine. The perforated strip placed across the center of the package also carries symbolic meaning. It represents the patient’s release from depression when the package is torn into two parts.

Take a look at the advertising poster for the anti-melancholy drug Tofranil. In my opinion, it is a brilliant example of advertising, where the image very simply and precisely communicates to the consumer what the product is meant to treat. According to

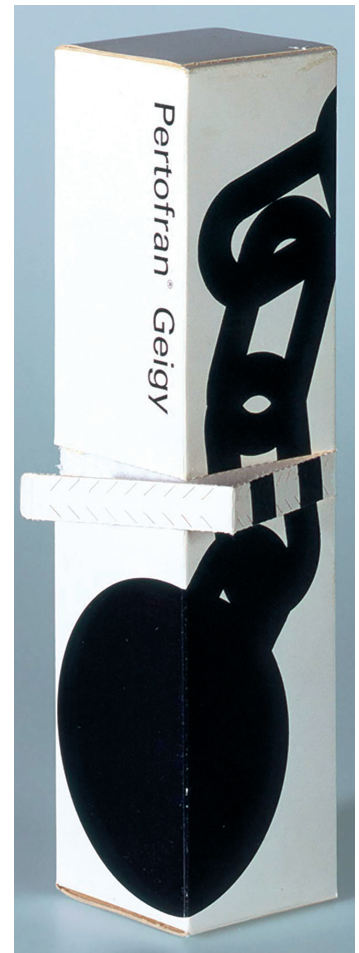


Photo 128. Pharmaceutical packaging «Pertofran», 1960s

*Packaging
as art*

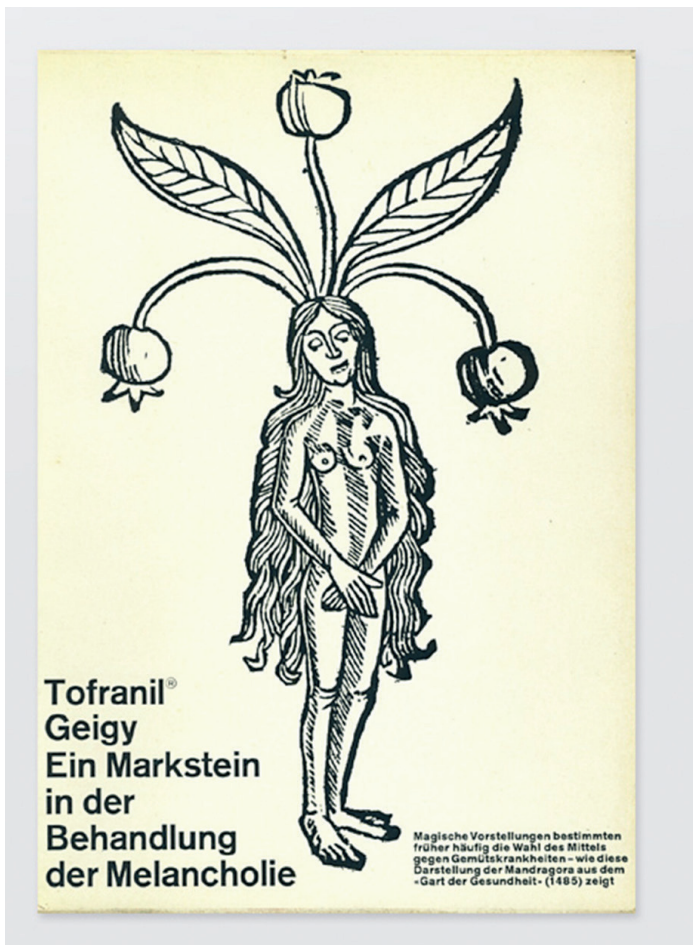


Photo 129. Pharmaceutical packaging
«Tofranil», 1960s

psychological and philological dictionaries, melancholy is defined as a painful state of depression, thoughtful sadness, gloom; a quiet despair accompanied by foreboding and a general lack of responsiveness to stimulation. In Sigmund Freud's description, a melancholic person is characterized as follows: *«The patient portrays their 'self' as vile, incapable, and immoral. They reproach and berate themselves, expecting rejection and punishment. They humble themselves before others, pitying those around them for being associated with such an unworthy person. They do not recognize the change that has taken place within them but extend their self-criticism to the past, claiming they were never any better».*

Now, look at the poster (which was also used as the packaging design for the product).

The designer managed, through a simple and minimal illustration, to capture with striking accuracy the emotional state of a person experiencing melancholy.

Among pharmaceutical packages that use body imagery in their design, one example is the carton packaging for Butazolidine Pommade. It was designed by Stefan Geissbühler in a linear graphic style. All of his work in pharmaceutical packaging was characterized by multi-part visual compositions, yet he managed to maintain

structural clarity and unity. In this particular design, he depicted human legs against a white background, with muscles clearly outlined in black. To ensure that consumers could instantly recognize what condition the medicine was intended to treat, Geissbühler highlighted the lower leg area in bright red. Through this visual cue, the designer helped consumers quickly identify the product they needed. Most likely, upon seeing such packaging, a consumer would leave with the product inside - not only because of its medicinal properties, but also because the design immediately and clearly communicates the type of pain it addresses, standing out among many other packages.



Photo 130. Pharmaceutical packaging «Butazolidine Pommade», 1960s

*Packaging
as art*

«“Packaging materials, fibers, surface coatings, continuous testing, and large-scale products... have transformed nearly every aspect of our lives. Without them, much of modern medicine would simply be impossible, and consumer electronics and the computer industry would not exist. Even plastic sewage and water pipes alone have made an invaluable contribution to public health worldwide»

Norman K. Billingham

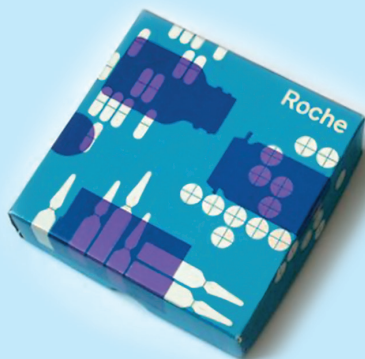


Photo 131. Pharmaceutical packaging, 1960s

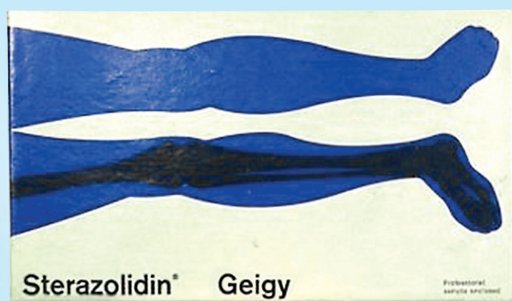


Photo 133. Pharmaceutical packaging, 1960s



Photo 132. Pharmaceutical packaging, 1964

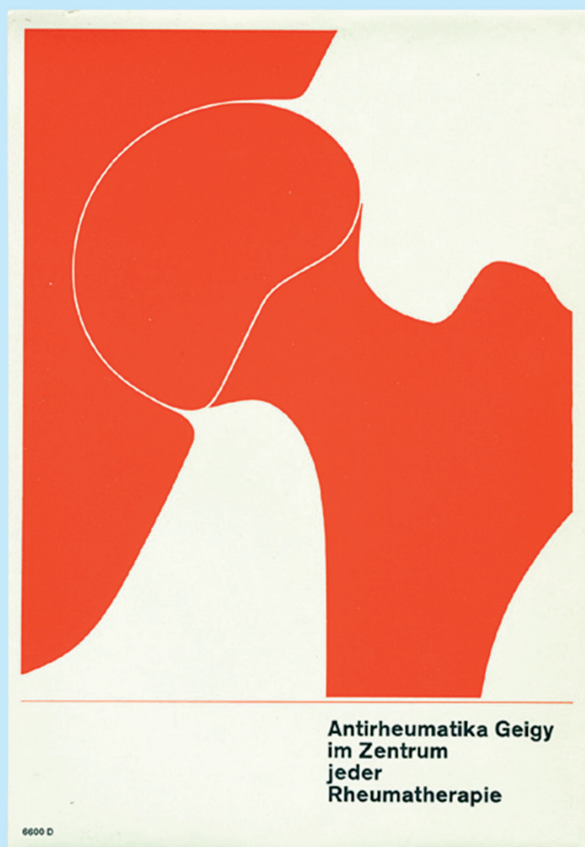


Photo 134. Pharmaceutical packaging, 1960s



Photo 135. Pharmaceutical packaging, 1964



Photo 136. Pharmaceutical packaging, 1964

In 1962, a new generation of inks and cardboard was introduced. Printing on carton packaging became significantly brighter and more насыщенной than before. With the emergence of modern rotary offset printing machines equipped with electronic control, the time required to produce high-quality carton packaging was greatly reduced.

Another important innovation was introduced in 1964. The German company Hassia Verpackungsmaschinen GmbH presented its invention to the market - the push-out blister packaging, which allows patients to easily remove tablets from the blister without much effort.

Packaging Insight... IBM

Another legend of industrial design, Paul Rand, in the mid-1960s accepted a commission from IBM to design packaging for magnetic tape reels. But more than that, IBM became the first company for which Rand developed a complete visual system - from the logo to packaging for every product. He created a modern, vibrant logo that came to life across stationery, brochures, packaging, and publications. This marked a major breakthrough compared to the visual identity IBM had used since its founding. Paul Rand made the company instantly recognizable to the public. Moreover, he reinforced its perception as a great company - one at the forefront of technological innovation.

«Packaging is more than convenience - it must be something to look at. Its appearance should not only fulfill its primary function of identifying the brand but also enhance the form, enriching and emphasizing it.

*Packaging
as art*



Photo 137. Carton packaging for IBM designed by Paul Rand, mid-1960s

Good packaging reflects the designer's respect for the material. It should not be 'overpowered' by meaningless decoration, nor stripped of all visual appeal in the name of functionality.

A designer should not exploit visual nostalgia or emotional attachment through imitation, but rather express an objective understanding of the fact that people have emotional responses to objects.».

Paul Rand transformed America's approach to visual communication. Through his work in visual identity, he introduced avant-garde European ideas to the United States, blending art with commercial design. In a sense, he «redefined the ordinary». His designs proved so successful and timeless that they remain popular



Photo 138. Carton packaging for IBM designed by Paul Rand, mid-1960s



Photo 139. Carton packaging for IBM designed by Paul Rand, mid-1960s

*Packaging
as art*

and highly respected among designers to this day, continuing to influence contemporary packaging design.

By the late 1960s, the era of Swiss-style carton packaging was coming to an end. Many graphic designers consider this period to have been the golden age of pharmaceutical packaging design. The Swiss style was built on minimalism and clarity - exactly what consumers needed. During this time, packaging fulfilled its functions better than ever before: promoting products and establishing effective communication with consumers.

In the Soviet Union, there existed a state system of industrial design that placed great emphasis on scientific research, methodological support for design practice, and informational and promotional activities. The design approach began to enter applied graphics through industrial graphics (graphic elements on products) and packaging. Thus, the ideas of the 1920s found their way back into packaging design in the 1960s-1970s.

1970 – 1979

*«Packaging is usually very useful for the buyer.
It is a tool that simplifies and speeds up decision-making.
Packaging promises - and often delivers -
exactly what the buyer expects»*

Thomas Hine

Until the 1970s, the pharmaceutical industry was relatively small in scale. From this point onward, however, it began to grow rapidly. Many countries introduced strict patent legislation.

New requirements were imposed on pharmaceutical carton packaging, and as a result, it underwent numerous changes.

Strict requirements for packaging were established:

1. Packaging costs must remain low;

*Packaging
as art*

2. Packaging must be adapted to the needs of pharmaceutical companies;
3. It must be suitable for use on automated production lines;
4. Its quality must not deteriorate during transportation and storage;
5. Packaging must serve as a means of communication with the consumer;
6. It should be easy to open and practical to use.

The German pharmaceutical company Dr. Karl Thomae GmbH/C.H. Boehringer Sohn Group, together with Carl Edelman GmbH CAM and Hofliger+Karl/IWKA, introduced a technical innovation in the standardization of carton packaging. Thanks to this development, pharmaceutical companies gained the ability to package medicines using various types of production lines.

The era of the Swiss International Style came to an end, and the world was swept by a «new wave» of moderate postmodernism, which inevitably influenced pharmaceutical carton packaging design. Postmodernism marked a move away from extremism and a partial return to tradition.

*«Good design is about making other designers feel like idiots -
because the idea wasn't theirs»*

*Frank Chimero,
illustrator and designer, Oregon, USA*



Photo 140. Pharmaceutical packaging, 1970s



Photo 141. Pharmaceutical packaging, Switzerland, 1971



Photo 142. Pharmaceutical packaging, USA, 1970s

1980 – 1989

*«Pablo Picasso once said:
'Good artists copy, great artists steal.'
We have never been ashamed of stealing great ideas»
Steve Jobs*

The pharmaceutical industry continued to grow rapidly, with increasing consolidation and expansion of pharmaceutical companies. Well-promoted and widely recognized brands from large corporations began to push out lesser-known products. Consumers increasingly accepted the message conveyed by advertising - that a strong brand equals quality. Products with superior packaging often sold much faster. At the same time, the issue of standardization remained highly relevant.

As a result, in the 1980s, small biotechnology companies

*Packaging
as art*

were increasingly absorbed by large pharmaceutical corporations or forced to sell their shares. This became the only viable option for them, as there was little room left for small companies among industry giants.

At the same time, significant progress was made in the development of medicines aimed at treating cardiovascular diseases and HIV infections, which became defining areas of this decade.

The foundations for the emergence of the information society began to take shape, gradually replacing the industrial one. The first machines for packaging processes and full packaging lines were introduced. With the advancement of computer technologies, design software emerged, fundamentally transforming graphic packaging design. Computerization also enabled pharmaceutical manufacturers to monitor and document any deviations from specified parameters, contributing to improved drug production processes.

At the legislative level, responsibility for the quality of pharmaceutical products increased significantly.

In terms of packaging design, however, no major changes occurred. Each country aimed to make its packaging recognizable and appealing to consumers. Japan, for instance - a country known for its meticulous approach to packaging design - partially adopted the Swiss style. Designers focused on typography, highlighting the product name, clarity of information, and the use of color. At the same time, Japanese packaging often



Photo 143. Pharmaceutical packaging, Japan, 1980



Photo 144. Pharmaceutical packaging, Lithuanian SSR, 1986

included all detailed information about the product directly on the package, allowing consumers to read it without consulting the instructions. Minimalist design and high-quality materials formed the foundation of packaging design.

In the USSR, pharmaceutical packaging design remained unchanged for decades, with most packages looking almost identical. However, in the 1980s, a strong desire for change began to emerge. At the exhibition «Design USA», held in Moscow in 1987, Soviet designers were exposed to many new ideas. They suddenly realized how powerful packaging design could be - how it could shape public thinking and influence consumer behavior. Many ideas and concepts developed by Soviet designers could not be brought to life due to technological limitations, lack of materials, and political constraints.

1990 – 1999

«People ignore design that ignores people»

Chimero

For designers and manufacturers of pharmaceutical carton packaging, the first half of the 1990s was arguably a very challenging period. This was especially true when it came to creating something new and bringing it to market. Most globally recognized pharmaceutical brands were caught up in the wave of mergers that had begun in the 1980s. As a result of these mergers, many companies emerged burdened with numerous obligations. Unfortunately, company leadership could no longer afford to let managers develop long-term marketing strategies and wait for their results. They needed results here and now. At the same time, creating anything new - including new

packaging design - was seen as too risky. As a result, new packaging or redesigns were introduced only in extreme cases, when sales managers and retailers had completely lost patience due to declining sales.

Amid increasing globalization, design worldwide became focused on the consumer market. The main challenge for designers was to preserve their own cultural values and traditions.

Technologies and materials used in packaging design and production across different countries (including Ukraine) became largely similar. All preparatory work - from structural design to visual development - was now carried out on computers. The creation of new packaging took significantly less time than before, while much greater effort was invested in understanding consumer preferences and analyzing how specific colors and decorative elements align with particular products.

From the second half of the 1990s, packaging production began to grow rapidly worldwide, including in the countries of the former USSR. For example, before 1990, per capita consumption of packaging materials in our country was only about 10 kg, whereas in European countries it reached up to 200 kg.

In the USSR, packaging design often involved imitation, but at the same time, a distinct approach to industrial graphics and packaging was gradually emerging. However, under



Photo 145. Carton packaging «Fluoxetine», 1990s

*Packaging
as art*

the conditions of «developed socialism», a unique yet rather dull and somber style took shape - known as socialist realism. According to UN experts, the Soviet Union was classified as a less developed country in terms of packaging.

Globally, a new generation of antidepressants emerged, with fluoxetine being one of the most popular at the time. At the same time, so-called alternative medicine and dietary supplements began to develop активно, gaining consumer demand and becoming competitors to the pharmaceutical industry. Meanwhile, pharmaceutical companies increasingly faced public criticism, with accusations that they were promoting excessive drug consumption and even «inventing» new diseases.

Countries began liberalizing their markets, removing trade barriers, and accelerating economic globalization. A middle class emerged, highly sensitive to the prices of medicines and consumer goods in general.

In the growing segment of premium packaging, new finishing techniques gained popularity, including foil stamping, UV coating (both spot and full), embossing, and other high-end decorative methods. Technologies for the production of carton packaging continued to improve, and the range of packaging available on the market expanded. Packaging suppliers began collaborating with international companies.

In Germany, a law was adopted requiring manufacturers to take responsibility for the disposal of the packaging in which their products were sold.

Finally, one of the most significant developments in the pharmaceutical industry was the introduction of a comprehensive regulatory framework governing all aspects of production safety - GMP (Good Manufacturing Practice). GMP is a system of standards, rules, and guidelines for the production of medicines, medical devices, diagnostic products, food, dietary supplements, and active ingredients. Since safety in pharmaceutical manufacturing has always been a top priority, these regulations have been adopted into law in most countries around the world. These standards have had - and continue to have - a significant impact on pharmaceutical companies and their suppliers. The core principle of GMP states that achieving high product quality requires strict quality control at every stage of preparation and production.

In the early 1990s, Ukrmedbioprom raised the issue of introducing GMP standards in Ukraine. In 1996, the State Committee for Medical and Biological Industry of Ukraine issued Order No. 117, according to which pharmaceutical manufacturers were required to comply with GMP standards starting from January 1, 2002. This order was not mandatory for enterprises and was considered impractical by many manufacturers. Nevertheless, it played an important role in initiating the transition toward GMP.

Manufacturers of packaging lines and printing equipment made significant



Photo 146. Carton packaging, 1990

*Packaging
as art*



Photo 147. Carton packaging, 1990

technological advances. They aimed to integrate the electromechanical components of machinery with software systems, enabling more precise and controlled production processes.

With the introduction of GMP standards, the need for quality control of printed materials also increased. In Europe, carton packaging manufacturers began implementing quality standards and using densitometers to measure and control color accuracy.

By 1999, the packaging sector had become the second-largest industry after automotive manufacturing in terms of the use of robotic systems.

PART 3
MODERN
CARTON PACKAGING



2000 - наш час

«Good design is immediately noticeable. Great design is invisible»

Joe Sparano

INTELLIGENT PACKAGING

In the modern world, everything is rapidly changing and evolving. Time efficiency and safety have become the most important factors when choosing any product. People demand innovation in every aspect of life. IT technologies make life easier, more dynamic, and more engaging. At first glance, it may seem unclear how they can contribute to maintaining human health or interact with pharmaceutical companies. But, as they say, simplicity is the ultimate sophistication.

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It is well known that many people often forget to take their

medications on time - whether it's missing the exact hour or even an entire day. Patients may intend to remember that they need to take their medication at a certain time, but when that moment comes, they simply forget. This leads to new problems: either the patient worries about missing a dose, or stops following the schedule altogether. There are also frequent cases when patients forget how to take their medication or lose the doctor's prescription. Of course, manufacturers now try to include more information directly on the packaging. Detailed instructions are enclosed, explaining dosage and usage. However, the medical language used in these instructions is often intended more for healthcare professionals than for patients. To reduce confusion about how a drug works and how it should be taken, some manufacturers provide simplified instruction leaflets specifically designed for patients. Still, these measures are often not very effective.



Photo 148. Modern pharmaceutical packaging

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as art*

The Marketing Aspect of Packaging

In today's highly competitive environment, manufacturers in every industry compete for consumer attention. Companies strive to make the most effective use of key marketing elements: price, product, distribution (place), and promotion.

Today, packaging has evolved into a separate and independent «P» within the marketing mix.

Packaging facilitates product transportation, enhances product perception, highlights its key qualities, and ultimately - sells the product. From this perspective, packaging is a powerful communication tool between the consumer and the manufacturer, as well as an effective means of promotion that works without altering the product itself.

Since its inception, packaging has been closely linked to the psychological processes involved in purchasing decisions. However, over time, the requirements for packaging have changed.

Previously, packaging primarily served the functions of transportation and storage. Today, the demands are far greater. Packaging must feature unique design, convenience, attractiveness, harmonious color use, product protection, and many other qualities.

In the modern world, new standards define packaging, and among them, ease of use - both of the product and its packaging - has become the top priority.

This is largely because a generation well aware of marketing strategies - and accustomed to convenience in every aspect of life - is growing older, while becoming even more demanding

as consumers.

Consumer awareness of new products is at a high level, and the digital consumer continues to expand their reach. The rapid growth in the production of biopharmaceuticals is increasing the need for innovative solutions, particularly for high-quality medicines that are highly sensitive to dosage.

Pharmaceutical companies are operating in an increasingly complex competitive environment. As a result, packaging design is becoming a key marketing opportunity for companies seeking to maintain market share and build brand loyalty.

Packaging Needs to Change

Let us turn to research conducted by Euromonitor, a leading independent strategic market research company:

- By 2025, people aged 65 and older will account for 18% of the world's population. An aging society is driving demand for easy-to-use pharmaceutical packaging solutions that support treatment adherence and assist patients with limited dexterity.

- In 2017, 19% of the global population aged 15 to 29 used fitness applications to monitor their health. These indicators show that more and more young people are becoming aware of the importance of maintaining their health. As a result, demand is expected to grow for packaging that is simpler and easier to use.

- Today, 45% of the world's population uses the internet, and by 2030 this figure is expected to rise to 76%. The rapid emergence of the digital consumer and increasing IT literacy are driving demand for packaging with tracking and smart features.



Photo 149. Pharmaceutical packaging with tamper-evident protection



Photo 150. Pharmaceutical packaging with child-resistant protection

All of the above data point to one conclusion: companies need to focus on developing intelligent packaging that is easy to use and attracts attention through its design.

Moreover, according to studies conducted in our country, consumers are ready to embrace innovations in packaging. Interestingly, they are also willing to pay a price premium for them. Therefore, manufacturers can explore ways to improve product packaging in order to better meet consumer needs. It is worth noting that only 16% of respondents disagreed with the statement that packaging influences purchasing decisions.

Innovative Solutions for Pharmaceuticals

For example, the pharmaceutical company Merck and packaging manufacturer WestRock collaborated on the development of packaging for the drug Zepatier, used to treat hepatitis C. The goal of this partnership was to meet the increasingly high expectations of consumers.

The packaging includes a calendar-based blister pack, clear labeling, and other visual indicators that support patient adherence. It is also designed to make taking the medication simple and intuitive.

Commenting on the development, John Grinnell, Vice President of Sales for Health and Beauty at WestRock, stated:

«Packaging is the only tool that stays with the patient throughout the entire course of treatment, making it extremely effective in ensuring adherence to medication».

In 2017, intelligent packaging was presented at the Pharmapack exhibition. The development team proposed pharmaceutical carton packaging that:

- Easy to open: the top flap is perforated, allowing the package to be opened effortlessly;
- On the inner side of the top flap, dosage and intake times are printed in large, bold letters;
- Days of the week marked on the blister help patients avoid confusion in their medication schedule;
- And most importantly: a QR code. By scanning the code with a device (such as a smartphone), the patient can download an app that sends reminders at the correct time and day to take the medication. Moreover, the attending physician can also monitor the patient's treatment, including blood pressure and other relevant data.

Today, such packaging solutions are already appearing in pharmacies in our country. A relevant example is the packaging of Aspirin Cardio by the pharmaceutical company Bayer.

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Photo 151. Smart wireless pill bottle

Digitalization of Packaging

Statistics show that people over 50 increasingly make mistakes when taking medication due to packaging design. As a result, debates continue about how packaging should be designed to ensure that the medicine inside does not harm the consumer. Focusing on IT technologies, the company AdhereTech introduced intelligent wireless pill bottles designed for the treatment of serious conditions such as cancer.

Each bottle notifies the patient when it is time to take their medication and indicates the required dosage through text messages or automated phone calls. These can be simple reminders, personalized messages, or even questions related to medication use. Patient responses are also analyzed.

Caregivers and physicians can monitor treatment and medication adherence through dedicated applications. The AdhereTech system is integrated with various pharmacy systems, allowing pharmacists to receive real-time reports identifying patients who need timely support. They can then contact patients directly to provide assistance.

The company itself states that its main goal is to become the most seamless and user-friendly technology ever used by patients.

In its 2019 report on key trends in the pharmaceutical industry, Pharmapack highlighted that small companies in Europe are currently the most progressive. These companies are developing the majority of specialized, user-friendly technologies.

It was also noted that many innovations are aimed at eventually replacing certain functions of healthcare professionals, focusing

«If you turn opening a package into a ritual, its contents become special. Packaging itself can tell an entire story»

Walter Isaacson

instead on helping patients independently manage dosage and medication schedules.

In conclusion, it should be noted that convenience of packaging, along with its design, is becoming an increasingly important factor for consumers when choosing a product.

Some time ago, a Ukrainian company conducted its own marketing research on how consumers perceive packaging. The study included two groups: those who considered packaging, its design, and ease of use important, and those who initially denied that these factors influenced their decisions.

By the end of the study, participants from the second group independently acknowledged that their initial opinions had been incorrect. This once again demonstrates that consumers are becoming more attentive to packaging - especially when it is designed for ease of use and time efficiency.

As a result, pharmaceutical companies remain in a constant process of searching for the best solutions to meet consumer needs.

TRENDS IN PHARMACEUTICAL CARTON PACKAGING

Pharmaceutical companies recognize the significant impact packaging has on consumer choice. Thanks to advancements in packaging, the appearance of retail spaces has also changed - many pharmacies now resemble small supermarkets.

Medicine packaging has become an integral part of modern life. Often, packaging is designed in such a way that it attracts a consumer's attention even when they do not actually need the product.

This idea is not new. As Richard B. Franken wrote in his 1928 book «Packages That Sell»:

«The appearance of a package is as much a salesperson as any human employee - and often even better».

Packaging design is not fine art in the traditional sense, and no one claims it to be. A century ago, when packaging was seen as the «signature» of the manufacturer, such a comparison may have been appropriate. Today, however, designers are expected not only to express the essence of a product through packaging, but also to subtly conceal aspects that should not be emphasized.

The Importance of Design

Research shows that in the modern world, consumers are more likely to trust packaging than a salesperson. Design is now evaluated as either «effective» or «ineffective». As a result, pharmaceutical companies hire top designers, psychologists, and marketers to create

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the «shell» for their products.

According to research, during approximately 1,800 seconds spent in a store or pharmacy, a consumer becomes aware of around 11,000 packages on display. A package has only one-sixth of a second to capture the consumer's attention. This places enormous responsibility on the designer: the time available to attract attention is comparable to the duration of a lightning flash. A packaging designer must not only be highly creative but also deeply understand consumer preferences. They must consider which target segment the packaging is intended for, at what time of year the product will be most in demand, how it will be positioned on pharmacy shelves, under what lighting, and in which section of the display.

Often, packaging approval involves meetings attended by designers and top management. In such settings, packaging may appear perfect - or, conversely, clearly in need of refinement. However, once approved and placed on pharmacy shelves, it may fail to deliver strong financial results - or perform below expectations. Why does this happen? Because packaging that looks like a «star» on its own can easily become a «grey mouse» when placed on a shelf among competitors. And the opposite is also true - a simple, unremarkable package may stand out and become the most noticeable among others.

To avoid such situations, designers conduct research during the packaging development process. They use detailed questionnaires with hundreds of precise and sometimes complex

questions aimed at understanding what will make a consumer notice and choose a product. In each case, competing products are studied, consumer needs are analyzed, and only then is a decision made: should the packaging take a new direction or resemble existing market solutions? Color plays a crucial role in this process. It is a powerful tool, and even small variations can evoke completely different emotional responses.

As Richard Gerstman noted: «There have been many stereotypes about which colors should correspond to which products - but they all become outdated as new successful packaging designs continue to disprove them».

Modern Pharmaceutical Packaging in Ukraine

In our country, packaging design increasingly incorporates techniques such as foil stamping (often using multiple types of foil), embossing, UV coating, hybrid varnishes, and other finishing methods. Pharmaceutical companies, by creating such packaging, seem to convince consumers that only high-quality medicines are



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Photo 152. Modern pharmaceutical packaging

contained within. Most companies place illustrations on the packaging that visually communicate the effect of the drug or its active ingredient. It is even possible to identify the dominant color palette: blue, green, and red.

Companies that have established themselves in the pharmaceutical market often rely on a consistent corporate identity or combine a simple yet refined design with a recognizable logo placed prominently on the package. These companies use a variety of colors but do not overuse finishing techniques within a single package.

While they may incorporate elements such as foil stamping, they apply them selectively. Very often, such packaging features a minimalist design with a limited color palette, complemented by subtle foil stamping and UV coating, creating a balanced and elegant appearance.

As for the shape of packaging, most are rectangular. However, occasionally one can find packages with triangular or even irregular forms. It is also worth noting the size of packaging. In recent years, many pharmaceutical manufacturers have been forced to increase package size. Firstly, due to legal requirements to include more detailed information in drug instructions. Secondly, larger packaging helps products sell themselves: the bigger the package, the higher the chance it will catch the consumer's eye and influence their choice.

Packaging of European and American Manufacturers

In Europe and the United States, designers focus more

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on consumer associations, easy recognition of the product, and clean, simple design - all while maintaining a high level of informativeness.

Such packaging visually communicates what the medicine is and what it is intended to treat. It «speaks for itself». This does not mean the design is simplistic - rather, it is concise and informative.

Here, packaging serves as a powerful communication tool, capable of «talking» directly to the patient.

A good example is the packaging of the Help Remedies brand. Designers found a simple yet creative way to address the consumer directly. On a restrained white package, the word «Help» is written in bold letters, followed by the specific problem the consumer is trying to solve when they come to the pharmacy.

Such packaging makes life easier for consumers, simplifying the often difficult process of choosing the right medication - eliminating the need to search for alternatives.

In the early days of pharmaceutical carton packaging, the design was often created by the inventor of the medicine. Today, however, it is developed by entire design agencies. International companies frequently hold competitions for the best packaging design, where winners receive fees comparable to years of regular work.

Modern pharmaceutical packaging design is often tailored to the target age group. For adults, the design tends to be refined, simple, calm, and clear. The purpose of the medicine, its use, and instructions should be immediately understandable at first glance.

When designing packaging for children, designers often incorporate images of children, bright colors, playful illustrations, or cartoon characters. This approach helps adults quickly identify children's medications in pharmacies, while also making the experience more engaging for young patients.

Colors and textures play a subtle but important role in influencing purchasing decisions. That is why designers carefully introduce specific, delicate color choices to enhance clarity and give the packaging a lively, appealing appearance.

MODERN REQUIREMENTS FOR PACKAGING

If in the past carton packaging primarily served to protect products during transportation, today this function has become less relevant. For transportation, pharmaceutical companies now use additional outer packaging. Secondary packaging, therefore, must not only protect but also sell the product and offer additional functionality.

Some companies, caring about their customers, produce packaging where medications are pre-sorted with clear indications of dosage times. Packaging for adhesive bandages, for example, is designed to make their use more convenient.

The importance of trends and fashion in packaging is evident - even a company like Bayer, which rarely changes its globally recognized packaging design, redesigned the packaging for Aspirin. This clearly demonstrates that packaging directly influences sales.

As for color, designers tend to use bright, vivid palettes. They rely on clear, simple typography and minimize post-print finishing processes. The main focus is placed on the design itself and the message it communicates to the consumer.

In 2010, the journal Archives of Internal Medicine published the results of a study indicating that individuals with positive depression diagnoses tend to consume chocolate in significant quantities.

In response to this, a UK-based online store предложил употреблять шоколад в форме таблеток, помещённых в блистерную упаковку. В комплект также входит инструкция,

описывающая «показания к применению». Например: «You're annoyed with your friend,» «You lost your favorite lip gloss,» or «Brad Pitt will never be your boyfriend,» and so on.

Interestingly, the packaging is designed in a classic, non-minimalist style and clearly stands out from modern solutions.

With each passing year, the importance of packaging design continues to grow, keeping pharmaceutical companies constantly on their toes. To a large extent, it is packaging - along with sales - that determines how competing companies secure their place in the market.

Of course, a pharmacist, as a seller, can explain product details, highlight key benefits, and suggest alternatives. However, in today's world, with «talking» packaging, such assistance is no longer essential.

Packaging has long since replaced the pharmacist as a communication tool. It has become capable of selling itself. All it requires is грамотный дизайн - one that, within seconds, clearly communicates the product's value and benefits to the consumer.

HOW COLOR INFLUENCES CONSUMER CHOICE

Have you ever wondered how the color of packaging actually influences your decisions as a consumer? For a long time, I personally believed that I was not a «victim of marketing» and that packaging color had no impact on my purchases. But after analyzing my behavior in stores, pharmacies, and shopping centers, I realized how mistaken that belief was.

Packaging in Our Lives

The role of color in packaging has evolved and is now considered one of the key tools of marketing.

Today, packaging is expected not only to fulfill its functional purpose but also to be aesthetically appealing. This aspect has long been studied by both psychologists and marketers.

The color of packaging has such a powerful effect on our brain that it can even alter our perception of taste. Moreover, research



Photo 153. Snack packaging by Real Handful, designed by Midday, 2018



Photo 154. Snack packaging by Real Handful, designed by Middy, 2018

shows that packaging design elements and color evoke emotional responses in consumers.

Most companies use color strategically to attract attention and increase sales. Even Plato spoke of the ideal origin of color and associated it with different ideas - for example, the divinity of blue, the femininity of yellow, and the masculinity of red.

Goethe, in turn, argued that certain colors evoke corresponding emotions. He distinguished between «positive» colors, which create an uplifting mood (such as red and yellow), and «negative» colors,

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ISPIRAZIONE ITALIANA
ISPIRAZIONE FIRENZE ARPEGGIO

ISPIRAZIONE ITALIANA

ISPIRAZIONE ITALIANA
ISPIRAZIONE RISTRETTO

ISPIRAZIONE ITALIANA
ISPIRAZIONE NAPOLI

ISPIRAZIONE ITALIANA
ISPIRAZIONE FIRENZE ARPEGGIO

ISPIRAZIONE ITALIANA
ISPIRAZIONE GENOVA LIVANTO

ISPIRAZIONE ITALIANA
ISPIRAZIONE PALERMO KAZAAR

which evoke a more melancholic and uneasy feeling (such as blue).

Make or Break

The importance of color in packaging success has long been recognized. In 1976, the company Kupchella launched a laundry detergent packaged in boxes of different colors. As part of an experiment, consumers were asked to evaluate each product and describe its quality - without knowing that all packages contained the exact same detergent.

The results were striking: respondents rated the detergent in blue packaging as the least effective, while the product in yellow-orange packaging became their favorite.

This demonstrates that consumers are more inclined to trust packaging - and their own perceptions - than a salesperson.

Many Western researchers have also noted that when surrounded by a wide variety of packaged goods, people can enter a state similar to a trance. The selling power of packaging becomes especially active at the moment when the consumer experiences visual overload.

In a supermarket, a package has only fractions of a second to capture attention - as within just 30 minutes, a shopper's gaze may scan up to 2,000 different products.

A Rainbow of Desires and Shades of Choice

It is important to highlight how complex the role of a packaging designer truly is. They must choose the right color solution not only based on visual appeal, but also depending on the target audience - whether the packaging is primarily aimed at men, women, or

children.

Research conducted at the University of Manitoba in Canada revealed that women tend to prefer colors such as pink, red, light blue, white, orange, and green. Men, on the other hand, are more likely to choose bright colors like purple, red, green, and most often - blue.

Interestingly, manufacturers of less healthy foods - often targeted more toward men - frequently use blue-dominated packaging. This is because the human brain tends to perceive products in blue packaging as being of higher quality.

Women's innate preference for warmer tones helps explain their higher tendency toward impulsive purchases compared to men.

Further research shows that Americans tend to prefer red, purple, and black color combinations. Adults generally favor shades of blue, red, and green. Introverts are drawn to cooler, calmer colors, while extroverts prefer warmer ones.

Youth and Maturity - on the Palette

Consumers with higher incomes tend to choose products in more restrained colors such as gray, blue, green, and silver. In contrast, those with lower incomes are more attracted to bright colors like raspberry, red, yellow, and orange. Research conducted using the Max Lüscher color test, developed by the Swiss psychologist, showed that elderly people tend to prefer packaging in blue tones, while yellow often вызывает у них отторжение.

Warmer tones in packaging are generally better received by younger and more dynamic consumers. Residents of large cities are



Photo 155. Pizza packaging by the Norwegian company Mano Pizza. Each box size features its own characters and illustrations, 2019

more likely to notice yellow packaging, though green and red are also popular among them - unlike among people living in smaller towns.

Bright, flashy packaging is typically aimed at the mass market, often within a lower price segment. In contrast, restrained

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and elegant colors are intended to inspire respect for the product among more affluent consumers.

It's All About Culture

When designing packaging, it is essential to consider cultural and gender factors. Approaches to carton packaging design differ between Europe and Eastern countries.

For European manufacturers, it is important to create elegant and appealing packaging as a continuation of the product itself. In Japan, however, a different attitude toward packaging has developed.

In Japan, packaging has long been approached with exceptional care. Even pharmaceutical packaging is treated as a kind of ritual offering and, according to centuries-old traditions, serves as an expression of respect from the producer to the consumer.

Beyond adding decorative value, packaging in this context also symbolizes the protection of the product - shielding it from impurity and the negative influences of the surrounding world.

Therefore, every element of packaging and every color decision is analyzed down to the smallest detail. Nowhere else does such a «packaging obsession» exist as in Japan.

This phenomenon in modern Japanese commerce is essentially a continuation of *tsutsumi* - a refined art form deeply rooted in traditional Japanese trade and craftsmanship.

For the Japanese, who place great importance on aesthetics and consider beauty a fundamental aspect of life, packaging is not just functional - it is an essential expression of the product itself.



Photo 156. Carton packaging for fresh fish, Japan

Even a matchbox in Japan becomes a distant relative of an artistic poster. In this remarkable country, it is not required to communicate the contents - its primary task is simply to stand out among competitors and make the world a little more visually appealing.

Take a look at how beautifully Japanese matchboxes from the 1920s-1940s accomplished this goal.

In Asian countries and Colombia, red is a preferred color in

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packaging. In Malaysia, popular colors include blue, black, pink, white, red, and green. In Brazil, lighter shades are favored.

In the West, the most popular color among consumers is blue. However, this does not apply to East Asian countries, where blue is often perceived as cold and may even be associated with negativity or improper behavior.

Therefore, when entering international markets, companies must carefully study cultural differences in color perception before launching marketing campaigns.

Subconscious Influence

Color has the ability to affect the psychosomatic state of individuals. This property is often intentionally used by pharmaceutical companies when designing medication packaging. Recently, a study was conducted in which participants were presented with 16 different packaging designs for a pain relief medication released under well-known brand names. The respondents were already familiar with the product.

The experimental packaging varied in shape, color (yellow, red, blue, green), and typography (three different fonts). The manufacturer's name was not disclosed - only the origin (domestic or foreign company) was indicated. The material, size, and product information were identical across all packages.

Participants were asked to choose their most preferred packaging, then the next, and so on. After evaluating all 16 options, the pattern of results became clear to researchers even sooner than expected.

A Note for Marketers

In real-life conditions, respondents tended to choose products in red and yellow packaging first. However, on a subconscious level, they also sensed that these colors were intentionally used to attract attention.

Yellow packaging proved to be most popular during winter. Red was perceived as too aggressive for medical products - yet at the same time, consumers believed that medicine in red packaging would relieve pain faster.

Additional research showed that products designed to boost energy or tone are most successfully sold in red, orange, and yellow packaging, and are perceived by consumers as the most effective.

According to respondents, products in blue packaging were perceived as the most effective and high-quality. This color is also considered particularly suitable for throat medications. Light blue and soft blue tones, due to their calming effect, are frequently used by pharmaceutical companies.

Green packaging, on the other hand, attracts consumers to a lesser extent, as it tends not to evoke a strong sense of reliability.

Intensity of Perception

In terms of attention-grabbing power, packaging colors can be ranked as follows: orange, red, yellow, green, blue, and violet.

The most effective design is considered to be one where dominant colors such as red, green, blue, or black are placed on a white background. White enhances the sense of cleanliness and increases the expressiveness of other colors.

For food packaging, red, blue, and green are considered the most suitable.

Red is the color of passion - it evokes excitement, stimulation, and a call to action. Red tones can even increase heart rate, which is why food manufacturers often use this color in packaging.

Blue, by contrast, is associated with calmness. Interestingly, younger schoolchildren tend to prefer shades of blue, which is why dairy products and children's goods often feature blue-dominated packaging.

Blue is associated with calmness. Interestingly, younger schoolchildren tend to prefer shades of blue, which is why dairy products and children's goods often feature packaging dominated by this color.

Another notable characteristic of blue is that when combined with white, the popularity of packaging increases significantly. This is because milk in blue packaging is perceived by consumers as fresher than in packaging of other colors.

Green symbolizes naturalness. According to consumer surveys, products in green packaging are often considered more natural compared to those in other colors.

What Draws Attention First

Color psychology is one of the most fascinating - and at the same time controversial - aspects of marketing. Perception of color in packaging is largely subjective, influenced by culture, upbringing, gender, traditions, and other factors.

However, there are general patterns and similarities in how

consumers perceive color. Analysts have identified these trends, allowing marketers to influence consumer preferences through color choices in packaging.

The psychological impact of color determines a consumer's willingness to purchase a product in about 70% of cases. This is why well-thought-out packaging design plays a crucial role in a company's positioning in the market.

ENVIRONMENTAL ASPECTS OF PACKAGING

*«When one blade of grass is pulled, the whole universe trembles» -
Ancient Upanishads*

*Packaging is almost immortal. And this is the other side of its
convenience and usefulness in our everyday lives.*

*Used packaging becomes waste - something that concerns many
of us. It is no longer as beautiful and pristine as it appeared on store
or pharmacy shelves. Without its valuable contents, it transforms
into something undesirable - almost like a «monster» we would
rather avoid. When we encounter it, we often turn away, silently
judging whoever left it behind.*

*Empty, discarded packaging seems to symbolize our own sense
of guilt and regret. Often, we dispose of it too quickly - throwing it
into a bin or even onto the ground, as if trying to rid ourselves of an
uncomfortable reminder of past desires.*

*Thus, long-lasting packaging accumulates around us with
overwhelming force, creating the impression that we may soon be
buried under empty bottles smeared with mayonnaise, medicine
boxes, chip wrappers, and more.*

I have often been asked about the necessity of secondary
packaging, with the argument that we purchase a product only to
immediately discard its packaging. We tend to question the necessity
of packaging only at the moment of purchase, without considering
that it was precisely the packaging that sold us the product. For this



reason, it is virtually impossible for manufacturers to отказаться от вторичной упаковки. Packaging sells - this is a long-established and undeniable fact.

The issue of ecology and recycling has become so significant that humanity has increasingly taken on the role of environmental protector - and this is, of course, a positive development. Many packaging manufacturers are developing strategies for recycling and reducing harmful components in packaging, while product manufacturers are increasingly transitioning to environmentally friendly solutions. However, let us examine all aspects step by step.

Any biological or social system generates waste and energy. Every year, approximately 1.3 billion tons of municipal solid waste are produced worldwide. According to forecasts, this figure

*Packaging
as art*

will reach 2.2 billion tons by 2025. Plastic, paper, and other non-food waste account for about 70% of total waste. However, only around 150 million tons can be recycled annually. UN research presents an even more alarming picture: if no action is taken, by 2050 there will be more plastic in oceans and seas than fish. According to UNEP, marine pollution leads to coastal degradation, and about 80% of this waste is plastic, which accumulates toxic substances in the ocean. Each year, more than 8 million tons of plastic enter the oceans, accounting for 85% of all marine waste - with 50% of that being single-use plastic packaging. It is also important to note that global plastic production has increased 20-fold compared to the 1960s. By 2050, plastic production and consumption may grow several times more, while its decomposition time is approximately 400 years.

The most hazardous types of packaging are considered to be those made from polystyrene (PS) and polyvinyl chloride (PVC). Packaging produced from these materials can release styrene into food - a substance officially recognized as a carcinogen by the U.S. National Toxicology Program.

Safer alternatives to PS and PVC include polypropylene (PP) and polyethylene (PE), which are considered less harmful to human health.

If we face reality, it becomes clear that there are currently no полноценные альтернативы упаковке для таких продуктов, как кетчуп, майонез и других подобных товаров. Greenpeace suggests solutions such as reusable packaging or refilling products

into personal containers.

While such approaches may partially address environmental concerns, most consumers are not yet ready to adopt them, and manufacturers ultimately respond to consumer demand.

The packaging industry follows the principle of the three R's: reduce, reuse, recycle. These steps are meant to be applied in this specific order.

Reducing the amount of material used in packaging production leads directly to a reduction in waste generated afterward.

Reusing packaging helps reduce energy consumption, while recycling prevents it from ending up in landfills. This means that recycling - often considered the best solution - is actually only the third most effective step.

Carton packaging is considered one of the most environmentally preferable options. According to a recent independent study conducted by the Institute for Energy and Environmental Research (IFEU), the positive environmental characteristics of carton packaging are due to the sustainability of its primary raw material, its renewability, and its efficient use of resources.

Approximately 75% of such packaging consists of cellulose derived from wood. In modern practice, carton packaging may be decorated with graphics, foil, and UV coatings to attract consumers. However, these additions do not significantly impact the environment during production or recycling.

A European life cycle assessment comparing PET plastic bottles, single-use glass bottles, and carton packaging confirmed

that carton packaging has clear environmental advantages over other types.

Producing single-use bottles requires nearly twice as many fossil resources and results in 2–3 times higher emissions of climate-harmful gases.

At the same time, Greenpeace, in its report «The Future in the Trash Bin...», points out that carton packaging also creates only an illusion of environmental safety.

Of course, cardboard does not pollute the oceans or directly contribute to the death of wildlife. However, its production involves large-scale deforestation each year, which in turn contributes to climate change.

To limit global warming, it is now necessary to remove vast amounts of carbon dioxide from the atmosphere. Companies that switch to carton packaging often overlook the importance of recycling and using recycled cardboard.

Every manufacturer wants their packaging to be made from cleaner, whiter cardboard, which is why recycled cardboard is often overlooked.

An important point about paper recycling is that it reduces the need for deforestation required to produce various types of paper and cardboard.

When discussing the environmental impact of cardboard, it is also crucial to remember that forests previously cut down for its production must be restored in a timely manner. Areas that have been depleted should be replanted, and regions where forests once



Photo 157. Kraft cardboard packaging for food products

existed - but have long since disappeared - should be revived.

In Ukraine, there are many such depleted areas, and it would be beneficial if both producers and consumers of cardboard took shared responsibility for restoring these ecologically valuable forests.

As Peter Kocatas, a life cycle analysis consultant, noted: «Paper or plastic? - that is the key question today. The issue is determining how many plastic bags are replaced by a paper one. Some will say one, others two, and some three. If, for example, it's five,

*Packaging
as art*

then paper is clearly better. But if it's one and a half, then plastic may actually be a reasonable option.»

According to him, there is no single material or technology that is inherently better than another in every situation.

All of this is far from simple. In this context, we can also address the issue of air pollution caused by transportation. It is significantly more expensive to transport a certain quantity of paper bags from point A to point B than the same quantity of plastic bags. In such cases, neither option can be considered entirely better or worse -both have a negative environmental impact to some extent.

When it comes to recycling, it is important to note that it is not a universal solution - neither in our country nor globally. The key issue lies in awareness and knowledge, which would make waste sorting and recycling a meaningful and effective activity for consumers.

Approximately 20% of waste sent for recycling is improperly sorted. This is a critical issue. Re-sorting does not always yield positive results, and economically, the process can be unprofitable.

For example, just one PET bottle can contaminate a batch of 20,000 HDPE (high-density polyethylene) bottles. It is also difficult to distinguish between HDPE and LDPE films - they look similar to plastic bags, but their recycling processes differ significantly. As a result, they are often not recycled at all.

Global Situation

At the end of March last year, the European Parliament approved a bill aimed at reducing plastic waste.

The proposal includes banning single-use plastic products in the EU starting from 2021. Products previously packaged in such materials must be transitioned to more environmentally friendly packaging solutions.

Packaging that contains plastic will be required to include information about its harmful impact on the environment. According to the document, by 2025 at least 77% of plastic bottles must be collected and recycled, and by 2030 this figure must reach at least 90%.

From 2025, plastic bottles must contain at least 25% recycled material, increasing to 30% by 2030.

Situation in Ukraine

In Ukraine, the waste problem is particularly acute. Around 95% of municipal solid waste ends up in landfills. In recent years, the volume of household waste has increased by 8%, reaching approximately 11 million tons per year.

Each Ukrainian generates about 350 kg of waste annually. Around 14 million tons of waste are transported to landfills every year. Notably, about 7% of Ukraine's territory is occupied by waste disposal sites.

Concerned about environmental issues, many people blame packaging as the primary source of pollution - both in terms of volume and impact. Indeed, when looking at massive landfills, it may seem that packaging dominates waste streams. However, experts estimate that packaging accounts for only 30–40% of total municipal waste.

Since 2018, a law on waste recycling and disposal has been in place, but in reality, only about 5% of total waste is processed.

However, in reality, only about 5% of total waste is processed. According to the Environmental Policy Strategy up to 2030, the goal is to increase municipal waste recycling to 60% - though even this figure is considered insufficient.

While the world is actively moving toward environmental protection and reducing plastic use, experts believe that Ukraine is not yet ready for such a transition, either financially or socially. Nevertheless, many manufacturers are already preparing to shift from plastic to cardboard, and in many cases, this transition appears both feasible and necessary.

Experience in Transitioning to Environmentally Friendly Packaging

In the fight for sustainability, global industry leaders must take the lead - companies that are widely recognized and serve as benchmarks for others.

Socially and environmentally responsible businesses are gradually replacing plastic packaging, which has been used for decades, with more eco-friendly alternatives such as cardboard.

Importantly, they do this not only consciously but also publicly - openly communicating their decisions, explaining the reasons behind them, and taking pride in these changes. In doing so, they encourage other companies to follow a similar path.

Any company today can support consumers in their pursuit of a more sustainable lifestyle by:

- using biodegradable materials in packaging production;
- use less plastic and film in packaging;
- replace plastic film with cardboard.

For example, Coca-Cola, supporting environmental initiatives, is replacing its shrink-wrap multipacks with cardboard packaging. In doing so, the company plans to eliminate the use of 4,000 tons of plastic film per year and aims to fully transition to recyclable film by 2025.

Interestingly, the company has also noted an increase in brand loyalty, as cardboard is easy to recycle and widely collected through existing waste management systems. In contrast, shrink-wrap film is much more difficult to collect and recycle.

Waste sorting, even minimal reduction in plastic use, and the transition to more environmentally friendly packaging - all of these are conscious choices each of us can make.

Of course, one might read this and think that the efforts of a single person cannot change the situation. However, real impact emerges when individuals unite and act collectively.

A company committed to environmental responsibility can consciously transition to cleaner packaging solutions. While this may not be a complete solution, it is undoubtedly an important first step toward meaningful change.

Other companies will follow, as society gradually becomes more aware of the importance of preserving the cleanliness of our planet.

Large corporations that consume significant amounts of cardboard can take responsibility by planting trees and restoring

forests depleted by irresponsible use of natural resources. At the same time, smaller companies can make meaningful contributions within their own cities or communities.

The Earth is an extraordinary planet with a well-developed capacity for self-regulation and renewal - but it now needs our help. The recent global pandemic clearly demonstrated that when human activity slows down, air becomes cleaner and water clearer.

Unfortunately, forests will not regrow on their own at the necessary pace, and plastic floating in the oceans will not simply disappear. That is why it is essential to recognize that even small individual actions - the first simple steps toward sustainability - play a crucial role in shaping our future and its quality.



OFFSET PRINTING OR DIGITAL PRINTING

For someone who has not worked in printing or collaborated with printing houses, and does not follow industry developments, it can be quite difficult to choose the right type of printing.

*At the same time, printing companies often accept any order - either producing it themselves at a cost that may not be *выгодна* for the client, or outsourcing it to another printer that can complete it more efficiently and at a lower price.*

So what is offset printing, what is digital printing, when should you choose one over the other, and what are their main advantages? Let's explore.

Offset Printing - the Origin of Modern Printing

Offset printing is a printing technology in which ink is transferred from a printing plate to the printing surface not directly, but via an intermediate offset cylinder.

This method is the most widely used for large print runs. You have probably seen in movies large machines with massive rotating cylinders - those are offset printing presses. The first offset printing machines appeared in the United States in 1905.

For offset printing, special plates are created using CtP (computer-to-plate) technology. A separate plate is produced for

*Packaging
as art*

each color that needs to be applied to the cardboard.

Offset printing presses use CMYK inks (Cyan, Magenta, Yellow, Black), from which any color can be reproduced. In addition, Pantone inks are often used to achieve precise color matching according to the original design specifications.

Advantages of Offset Printing:

- high print quality - sharp, vivid, and excellent images;
- the possibility of printing on any type of cardboard and paper;
- accurate transfer of colors in accordance with the original layout;
- the possibility of printing large editions in a short time;
- unlimited number of flowers;
- flexibility in the number of copies;
- the larger the circulation, the lower the price per unit.

Disadvantages of Offset Printing:

- production of printed forms (plates) is required;
- impossibility of fulfilling urgent orders (for example, in 1-2 hours);
- high cost for small editions;
- personalization is not possible. In other words, you cannot produce a low-cost batch where each package is different from the others.



SLAVENA

Digital printing is a relatively new printing method in which no permanent printing plates are required.

Printing is done directly from electronic files using technology that applies inks - more precisely, powdered toners - directly onto the material. Digital printing machines look similar to printers, but they are larger, more precise, and faster. However, the basic operating principle remains the same.

Advantages of Digital Printing:

- suitable and convenient for small print runs;
- lower cost for small batches;
- the possibility of personalizing packaging within the circulation;
- high print speed;
- flexibility when making changes.

Disadvantages of Digital Printing:

- inability to achieve perfectly accurate color reproduction (since standard inks are used) and to print with Pantone colors;
- high cost for large print runs;
- limited to four base colors;
- maximum volume - up to 2,000 copies;
- print quality, sharpness, and accuracy are significantly lower compared to offset printing.

To better illustrate the cost differences between print runs, a simple comparison chart is provided:



Photo 159. Difference between digital and offset printing

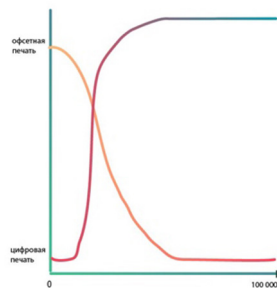


Photo 160. Cost comparison graph

We are often asked why the cost of producing small print runs is so high. The reason lies in the setup process: in order for the printer to achieve the required color accuracy for each ink, a certain number of setup sheets is needed. This number remains the same regardless of whether the run is large or small.

For example, if 300 setup sheets are required for a large print run, the same 300 sheets will be used for a small one. When these costs are distributed across a large run, they become almost negligible. However, for a small run, they significantly

increase the cost per unit.

Additionally, each color requires a separate printing plate. Again, when the cost of plates is distributed across a large run, the impact is minimal, but for small runs, it becomes substantial. As the print run increases, the cost per unit decreases - making offset printing more economical than digital printing for large volumes, where the cost per unit remains relatively constant regardless of quantity.

Finally, there is the machine setup itself. A digital press can produce a run (essentially print it) in about half an hour - simply by turning the machine on, much like a standard printer.

In contrast, an offset press requires significantly more preparation: it consumes a considerable amount of energy during startup, plates must be installed, calibration and adjustments must be made, and only then does the printing begin. The average offset printing press operates at a speed of about 27,000 sheets per hour.

Now imagine what happens to the cost if the print run consists of only 25 sheets.

During that same time, a large print run could have been produced - resulting in a much lower cost per unit.

Let's compare:

Parameter	Offset Printing	
	Small Run	Large Run
Setup sheets required	From 300 sheets	From 300 sheets
Ability to maintain ΔE (color accuracy)	Difficult, requires more print and setup sheets	Yes
Printing time	On average 4–6 hours	Also 4–6 hours (depending on volume)
Cost	High	Low
Post-print processing time	Same	
Production time	Same	

Ultimately, the choice of printing method always depends on the client. However, understanding the differences between offset and digital printing helps make a more informed and effective decision.

WHICH IS MORE IMPORTANT: THICKNESS OR DENSITY OF CARDBOARD?

Many companies spend a significant amount of time measuring the density of cardboard during incoming quality control. However, this parameter is not as important as it may seem.

Why do printing specialists primarily ask about the thickness of cardboard rather than its density when placing an order? Why do they consider this parameter more important, and what benefits does it provide to the customer? Let's explore.

Cardboard is a type of thick paper (definition from Wikipedia). It is a multilayer material in which fibers play a key role, forming multiple layers. These fibers give cardboard its essential properties: density, thickness, bulkiness, and rigidity.

These characteristics determine how well the material performs in processes such as creasing and folding, as well as its ability to maintain the shape of the final product.

Types of Cardboard by Application:

- packaging cardboard;
- printing (graphic) cardboard;
- designer cardboard.

Packaging cardboard is used for producing containers and packaging, which defines its key requirements: high rigidity, structural strength, barrier properties, and durability.

Packaging cardboard consists of several layers:

- Bottom layer - made from high-quality raw materials

(bleached cellulose, unbleached cellulose, wood pulp, or recycled paper);

- Middle layer - the thickest layer, produced from lower-cost raw materials (recycled paper, mechanical pulp, unbleached cellulose, or production waste);
- Top layer - made from high-quality raw materials;
- Coated layer - usually one or two layers of coating.

The use of less expensive materials in the middle layer allows manufacturers to maintain the required barrier properties while reducing overall costs.

Printing (Graphic) Cardboard

This type of cardboard is used for producing high-quality, multi-color printed products such as folders, brochures, and premium packaging. Unlike packaging cardboard, it does not require high rigidity. Its main advantage is excellent print quality, achieved through coated surfaces (single- or double-sided).

Food-Grade Cardboard

Food cardboard is used for disposable items such as plates, trays, and cups. It is typically coated, foil-laminated, or plastic-laminated to ensure safety and functionality.

Key Characteristics of Cardboard

- grammage (weight per 1 m²);
- thickness;
- moisture content.

Among the specialized technical properties of cardboard are absorbency, electrical insulation, deformation under moisture and

drying, and others.

Let us first consider such an important parameter as cardboard density.

Density is defined as the ratio of the weight of cardboard to the area of the sheet (g/m^2). In other words, for cardboard with a density of $235 \text{ g}/\text{m}^2$, a sheet with an area of 1 square meter will weigh exactly 235 grams.

This holds true for all types of cardboard from all manufacturers: if a pallet is labeled as containing cardboard with a density of $235 \text{ g}/\text{m}^2$, then each sheet of that size should weigh exactly that amount - under proper conditions. If the cardboard is stored incorrectly, it may absorb moisture and weigh more.

When placing an order, in about 98% of cases, the client specifies the required density of the cardboard. By indicating a certain density, the client expects to receive packaging that matches their expectations based on previous tactile experience with material of the same density.

However, when people refer to the weight or density of cardboard, they often actually mean its thickness.

Let us now examine the concept of cardboard thickness.

Thickness is the distance between the two surfaces of a cardboard sheet, measured in micrometers (thousandths of a millimeter). It is measured using a специальный инструмент - micrometer.

Cardboard commonly used for packaging typically has a thickness ranging from 300 to $800 \mu\text{m}$.

Why is it important to specify thickness when ordering packaging?

The key reason is that different manufacturers can produce cardboard with the same density but different thickness and rigidity.

Variations in the base paper layer, coating layers, and material composition result in noticeable differences in the final product – even when the density is identical.

Example Comparison

Below is a comparison of commonly used cardboard types:

Cardboard Name	SimCote	Alaska Plus	CartaSolida	SinarVanda	NingboStar	AeglePro	Bohui	AllyKing
Manufacturer	Finland			Indonesia	China	Finland	China	
Density (g/m²)	235	235	235	230	230	235	230	235
Thickness (µm)	425	425	385	355	250	410	350	385
Density (g/m²)	250	255	250	245	250	245	250	250
Thickness (µm)	450	470	415	380	275	430	390	420
Density (g/m²)	290	280	285	280	300	290	300	295
Thickness (µm)	550	520	485	450	355	520	453	510

As you can see, even with similar density values, thickness can vary significantly – which directly affects the rigidity, feel, and performance of the packaging. A careful review of the comparison table clearly shows how significantly thickness can vary even when the cardboard density remains the same.

At identical density levels, thickness may differ by as much as 100–175 µm, which is a substantial factor for the final product. It is also important to note that variations in thickness are not dependent

on the country of origin. As seen in the table, cardboard produced in China can match the performance characteristics of Finnish manufacturers.

Thickness plays a crucial role in giving packaging a more premium and presentable appearance. However, this is not the only reason to prioritize it.

Packaging machinery is often calibrated based on the required thickness of the cardboard. Therefore, if the supplied material consistently meets the specified thickness, the machines will operate smoothly, with minimal need for recalibration. This reduces downtime and leads to significant cost savings for the company.

COLOR PROOFING AS A PRINTING REFERENCE

Although less common today, some clients still request a color proof in order to approve it before proceeding with production. We understand that relying on a color proof when ordering carton packaging is often a way for the client to feel confident - but in reality, it can be misleading.

That is why we often have to explain and convince clients that a color proof is not a universal solution. What does a color proof mean from the client's perspective, and what does it mean in the daily work of printing professionals? Why do printers advise against relying on it as a final reference? These are the questions we aim to address.

For any client, a color proof is a natural desire to see an accurate representation of the final product's colors. In simple terms, the client expects the final print run to exactly match the colors shown in the proof.

In practice, a color proof is intended to simulate the printing process in terms of color reproduction and to resemble the final product. However, «resemblance» is a subjective concept.

Looking at the history of color proofing, its original purpose was to allow designers and printers at the prepress stage to identify and correct possible errors in the layout before printing.

This process is still carried out today by responsible printing companies, but in a slightly modified form: verification now takes place at the plate-making stage, where the data from the client's

original layout is checked against the data transferred onto the printing plates.

Let us refer to the definition of «color proof» provided by Wikipedia:

«A color proof is an image that serves as a reference for color reproduction in print runs. It is one of the key tools for ensuring color accuracy in printing, alongside densitometric and colorimetric control methods.

In a broader sense, a color proof can be considered any image that the client regards as a color reference: a printout from a printer, an original photograph, or even a product sample for a catalog. However, a printer will rarely be able to exactly match such an image if the realities of the printing process - such as the type of paper, inks, printing press, and prepress preparation - were not taken into account during its creation.»

While Wikipedia provides a general definition, it contains some inaccuracies. For example, a color proof cannot be placed on the same level as color measurement instruments (the reasons for this are explained further in the text). However, the second part of the definition accurately reflects the real situation in the printing industry.

Test Printing

A digital color proof should never be confused with test printing. In test printing, the full appearance of the final product is

reproduced using the exact materials specified in the client's original layout.

However, such a test run will cost nearly as much as a small full production run. Why? Because it requires complete prepress preparation, including the production of all necessary printing materials. The printing and post-print processing of this sample also demand similar time and resources as a full run. In other words, you are essentially paying for a small production batch.

From our perspective, this approach is justified only when launching high-end products with premium packaging - for example, luxury cosmetics or high-end alcoholic beverages.

Color Proof

First, it is important to note that the correct and full name of this tool is a «digital color proof». This indicates that it is produced using a digital printing method, typically with a digital printer. For the production of a full carton packaging run, a method opposite to digital printing is used - offset printing.

Color Matching

Modern digital color proofs are typically produced using inkjet printers with standard inks on a special material – proofing paper, which is essentially coated paper (similar to what is used for calendars or glossy prints).

It is widely believed that this technology provides highly accurate color reproduction. However, let's take a closer look.

There are several factors that significantly affect color perception, explaining why a color proof cannot be identical to the final printed product:

1. *Paper properties.* Color proofs are printed on coated paper, while packaging is printed on cardboard. These materials differ significantly in whiteness, thickness, ink absorption, rigidity, and other characteristics. In addition, images printed on glossy surfaces (coated paper) appear more vibrant and higher in contrast than those printed on matte materials such as cardboard;

Another important factor is paper thickness: the thinner the paper, the more the image shows through it.

2. *Inks.* Color proofs are produced on inkjet printers using standard CMYK inks (Cyan, Yellow, Magenta, Black), while packaging is printed on industrial presses using printing inks that differ significantly in composition;

3. *Pantone color reproduction.* Printers used for color proofs can only work with CMYK inks. They cannot accurately reproduce Pantone colors (spot colors) as specified in the original design. Instead, they simulate these colors by mixing CMYK inks.

In contrast, when producing packaging, manufacturers order specific Pantone inks directly from ink suppliers. These are often custom-mixed to match the exact required shade;

Note: Pantone colors are specific shades created by mixing inks and assigned unique identification numbers within the Pantone Matching System. When a Pantone number is specified in a design file, it ensures that the exact color will be reproduced in the final print run.

4. *Finishing coatings.* If certain elements of the packaging are coated with UV or hybrid varnish, a color proof cannot accurately show how the color will change after these coatings are applied. For example, when a white area is покрыта UV varnish, its shade will change.

Any protective coating - including water-based varnish used to protect ink from abrasion - has its own tint. Importantly, this tint can vary depending on the manufacturer and may slightly alter the final color tone. Typically, colors appear slightly darker under coating, and glossy finishes increase contrast;

5. *Screening (halftoning).* Inkjet printers provide high detail resolution, but the perceived image quality on a color proof may differ significantly from the result achieved through offset printing.

Sometimes clients ask whether it is possible to apply finishing varnishes directly to a color proof. Unfortunately, this is not feasible. Such attempts can lead to unpredictable color shifts.

As mentioned earlier, inks used in printers differ in composition from offset printing inks, and coatings affect them differently. In simple terms, applying varnish to a color proof will produce one result, while applying the same varnish to offset-printed packaging will produce another.

In other words, it is like trying to change your appearance using only a reflection in a mirror - the result will not match reality.

Color proofing can be justified when producing calendars, magazines, brochures, and other products printed on coated paper or materials with similar properties. However, when it comes to carton

packaging, a color proof cannot be considered a reliable guarantee of the final result.

This is because the requirements for color accuracy in packaging printing are significantly stricter than the standards applied to color proofing.

Moreover, one of the fundamental principles followed by printing houses specializing in carton packaging is: «Do not interfere with or alter the client's original artwork».

What does this mean? It means that printers produce the run strictly according to the parameters specified in the original file, using professional color measurement instruments to ensure accuracy. In simple terms, the process relies on precisely calibrated equipment - not visual estimation.

To help clients better understand the expected result, it is often sufficient to view the design on a properly calibrated monitor, which can also serve as a form of color reference.

Of course, creating a color proof is not prohibited, but it is important to remember: a color proof is not a 100% guarantee, not an exact replica of the printed result - it is only an approximation. And if a printing company tells you that they can reproduce the image on cardboard with 100% accuracy compared to the color proof - ask them about the properties of the cardboard, the printing method, finishing coatings, and the ability to accurately reproduce Pantone colors.

After that - the choice is yours.

WHAT IS PREPRESS AND WHY IT IS ESSENTIAL

Let's refer to the definition of prepress provided by Wikipedia:

«Prepress is the process of preparing electronic layouts for printed products using desktop publishing systems. A specialist responsible for preparing layouts for printing is called a prepress operator. In addition to basic tasks (such as placing layouts on the print sheet, adding technical marks and scales, and understanding the technical specifics of various printing machines), a prepress specialist may also focus on imposition, color correction, retouching, and other processes.»

Although the definition above mentions plate preparation, in reality prepress encompasses a much broader range of tasks and functions. These are exactly what we will examine.

The prepress stage is the first step in the full production cycle of carton packaging. The success of the entire product largely depends



Photo 161. Some tools used in prepress

*Packaging
as art*

on how well this stage is executed.

Prepress is designed to determine whether the layout meets technological requirements and complies with the expected quality standards, taking into account the materials used in production.

Today, most companies have design or structural departments staffed with highly qualified specialists who create the original packaging layout. Once this layout is handed over to the printing house for production, the printer is not allowed to make any changes to it.

In practice, there have been cases where clients placed very high demands on print quality and production standards, yet the layout itself contained issues. The printing house could not correct these problems without risking contractual penalties.

Why does this happen? Because design departments often employ specialists who may not be familiar with packaging production technologies, lack experience working with printing companies, or are unaware of the specific technical requirements of their own organization.

That is why, in some cases, it makes sense to rely on the experience of the printing house and consider their recommendations.

There is a common belief that printing houses review original layouts and correct errors. However, today most printers have moved away from this practice, because a prepress specialist cannot make such corrections - simply because they do not know «how it should be». And «how it should be» is a subjective concept that is already

defined within the original layout.

Main Stages of Prepress in Carton Packaging Production:

- *Packaging design development.* This stage is often handled by the client, who approaches the printing house with a finished layout. It is a lengthy and perhaps the most critical step in the entire prepress process, as the designer must consider numerous factors that influence the attractiveness and marketability of the product;

- *Creation of the electronic layout.* This stage involves defining the color scheme, dimensions, and required post-print processes. The designer converts the finalized design into a digital file for production. Each post-print process is typically marked with a separate color or provided as an individual file;

- *Preparation of the artwork for client approval.* This is the responsibility of the prepress specialist. The finalized electronic layout is processed and sent to the client's design team for approval. Each stage of the packaging production process is presented as a separate proof sheet, allowing the client to clearly see how the final product will be manufactured. This ensures that the manufacturer takes full responsibility for producing the packaging exactly as specified in the approved artwork;

- *Production of printing plates.* These plates are essential for the offset printing process. Using specialized technology, the image is transferred onto the plates, which then transfer the ink onto the cardboard during printing. Even for repeat production runs, new plates are often created. The number of printing plates directly depends on the number of colors used in the design. Additionally,

a separate plate is required for applying protective coatings, such as water-based varnish;

- *Production of films for UV coating.* For any type of UV varnish application (spot or full), a film must be created. This film defines the elements that will receive the UV coating;

- *Production of dies for embossing and Braille application.* If the packaging includes embossing or Braille text, files must be prepared for ordering dies and plates. It is important for the client to understand that, in addition to the die itself, a counterplate is also required. During production, the cardboard sheet is placed between the die and the counterplate. Both contain corresponding elements (male and female parts), and when pressed together, they create the embossed effect on the material;

- *Production of dies for hot foil stamping.* This step is required if foil (of any color) is to be applied to the packaging. These dies are typically made of magnesium, and their cost depends on the size of the stamped element. It is also recommended to consult with a specialist during the design stage to ensure feasibility. Extremely thin lines, very small spacing between elements, or delicate finishing details may be difficult or impossible to reproduce due to the limitations of die-making and the physical properties of foil;

- *Production of die-cutting tools (die-cut forms).* Any carton packaging requires the creation of a die-cutting tool. It is used to give the product the exact shape defined in the client's original layout.

As with embossing and Braille dies, a counterplate is also produced for the die-cutting process. This plate contains creasing

channels. During die-cutting, the printed sheet is placed between the die (with cutting knives) and the counterplate, where the final shape of the packaging is cut and creased.

The die-cut outline is always included in the artwork and is typically marked in red, while creasing lines are shown in green.

If the client has previously ordered the same packaging shape and works with the same printing house, a new die may not be required. However, even a 1 mm difference in dimensions necessitates the production of a new die. In such cases, it is recommended to reconsider packaging dimensions to minimize additional costs.

Note for the client:

1. The process of preparing files and producing materials is called prepress, while the resulting tools are considered post-print (finishing) materials.

2. A color proof is also considered part of prepress costs (discussed in detail in the article «Color Proof as a Printing Reference»).

3. For carton packaging production, printing plates and die-cutting tools are always produced for each order (unless the exact same packaging with identical dimensions has already been manufactured for the client).

4. Other finishing materials are only produced if the corresponding processes are specified in the artwork (for example, if the packaging does not include foil stamping, then no foil dies will be created).

5. All post-print materials are produced specifically for each individual client. A printing house is not allowed to reuse materials from one client for another client's production.

6. If post-print materials have already been produced and the client decides to change a design element, these materials cannot be modified. New materials must be ordered and produced again.

7. For each specific packaging design, post-print materials are ordered and paid for by the client only once.

WHY PRINTING HOUSES DISLIKE WORKING WITH REFLEX BLUE

«When I don't know what to do, I use blue»

Wim Crouwel

«Dislike» is actually putting it mildly. When a printing house receives an order that includes dark blue colors, production teams often have to urgently adjust their schedules. And when they see a large solid area (flood fill) of dark blue - especially Reflex Blue - it can seriously affect their enthusiasm for the day. Let's look at why.

In printing, there are 14 base Pantone colors: Pantone Yellow, Pantone Yellow 012, Pantone Orange 021, Pantone Warm Red, Pantone Red 032, Pantone Rubine Red, Pantone Rhodamine Red, Pantone Purple, Pantone Violet, Pantone Blue 072, Pantone Reflex Blue, Pantone Process Blue, Pantone Green, and Pantone Black.

These base colors have historically been used to create the full range of Pantone shades. One of these is Pantone Reflex Blue, which is the focus here. In simple terms, it is a deep blue-violet color - rich, intense, and visually striking. This is exactly why designers are so drawn to it when creating packaging layouts. However, its насыщенность comes from a group of alkaline blue pigments that include cobalt-containing minerals. These pigments give Reflex Blue its powerful color intensity - but also the properties that make it challenging to work with in printing. However, it is precisely these minerals - like most alkaline

*Packaging
as art*

materials - that are highly porous (similar to a sponge), making them problematic for printing professionals.

During offset printing on sheet-fed presses, printers use offset inks. The main materials involved in the process are metal plates, ink, water, and paper. When ink is applied, the paper becomes slightly moist, and the ink requires time to dry - otherwise there is a risk of smudging or abrasion.

Drying time varies depending on the color: lighter inks dry faster, while darker ones take longer. And this brings us back to Pantone Reflex Blue.

Its alkaline composition significantly slows down the drying process. In fact, drying can take a very long time, and some experts even claim that in certain cases - especially with large solid areas - Reflex Blue may never fully dry. As a result, ink smudging can occur at any stage, even when the product is already on store or pharmacy shelves.

Many of you are familiar with the Pantone color guide (fan deck) and may have used it before. However, not everyone notices that each Pantone color is actually a mixture of several base inks.

If you look at the percentage composition listed for each Pantone shade, you will often find Pantone Reflex Blue as a component in many blue tones.

Interestingly, Pantone Reflex Blue is not present in all rich, vibrant, and saturated colors.

For example, Pantone 2747 is much deeper and more



SLAVENA

насыщенный than Pantone Reflex Blue, yet it does not contain Reflex Blue at all. Despite being darker, it dries with significantly fewer issues.

Advice for clients: If, at the design stage, it is important for you to use a deep dark blue color, consider applying a UV coating or selecting a Pantone shade that either does not contain Pantone Reflex Blue or includes it in minimal amounts.

This will help you avoid issues such as ink smudging or abrasion even at the stage when the product is already on sale. Because, as mentioned earlier - this color may never fully dry.

WHY THE CLIENT'S PRESENCE DURING PRESS SETUP IS NO LONGER ESSENTIAL IN MODERN PRINTING

In offset printing, **press setup (make-ready)** is the process of calibrating printing equipment. It includes installing printing plates, adjusting color reproduction, and aligning inks across the entire sheet.

Another definition describes it as follows:

Press setup is the process of preparing a printing press for production - aligning colors (since they are printed separately and must be precisely combined on paper), adjusting the machine to the format and paper density, and regulating ink supply.

This process can take from 1 to 3 hours, depending on the complexity of the job and the number of colors involved.

From these definitions, it becomes clear what press setup entails. During printing, the operator responsible for applying ink to the cardboard must ensure that the printed result exactly matches the approved artwork provided by the client.

In other words, whatever the designer included in the original layout must be reproduced as precisely as possible on the final product.

Therefore, all color adjustments should be made at the stage of approving the original artwork with the printing house that undertakes production. The most effective and cost-efficient approach is to carefully check the layout during

preparation - print it out, review it, and analyze it thoroughly.

If there are still doubts, a digital proof can be created to ensure that both the layout and color are correct.

To avoid misunderstandings, the term «color proof» in this context refers to a print produced on a stable device that simulates industry-standard parameters: color reproduction, ink behavior, tonal gradation, and gray balance typical for offset printing - all of which together ensure predictable results.

Let's now look at how a client can achieve and visualize the exact color they want on their packaging.

First, any artwork should be created on a properly calibrated monitor using professional design software. Color standards are embedded within such software systems. The client selects the desired color, provides the layout to the manufacturer, and the printing house transfers this information to ink producers who create the required inks, including custom Pantone and special colors.

There is also specialized software such as **Ink Formulation**, used by ink manufacturers. It is designed to accurately calculate formulas for mixing custom colors based on base inks for various printing processes - including flexography, offset, gravure, and screen printing.

The calculation of ink formulas is based on precise measurements of ink samples and printing substrates, performed using a spectrophotometer, along with data on base inks.

The use of Ink Formulation software allows for significant

savings in both time and cost, as spectral measurements and precise calculation methods eliminate the need for multiple test runs and make it possible to achieve the correct formula on the first attempt.

A less accurate way to select color is by using a Pantone guide. However, it is important to understand that a Pantone fan deck cannot serve as an absolute reference when incorporated into a design, since it is also a printed product and may itself contain deviations from the intended color.

In modern printing, color consistency is controlled using specialized instruments that measure the optical density of inks. This allows printers to maintain consistent color from the first to the last sheet of a print run.

An acceptable color variation is generally considered to be a **Delta E value of ≤ 3** . (By the way, the presence of such control systems is a sign of a professional printing house - not all companies in the industry use this method.)

For comparison, a color deviation of **Delta E = 5.5 or higher** becomes noticeable to the human eye. That is why the industry standard aims for $\Delta E \leq 3$.

It is also important to remember that color perception is subjective and can vary depending on factors such as age, fatigue, genetics, and even mood.

Even people with «normal» vision may perceive colors differently due to:

1. physical and mental fatigue;
2. poor color memory;

3. age-related changes in color perception;
4. the influence of adjacent colors;
5. viewing under different lighting conditions.

Returning to the topic of color control. We ensure color accuracy using a spectrophotometer (X-Rite eXact).

A spectrophotometer is a device designed to measure the relationship between two flows of optical radiation — one that falls on the sample being studied, and another that has interacted with the sample.

In simpler terms, spectrophotometers are color measurement devices used to capture and evaluate color data. Within a comprehensive color management system, clients and designers can use them to specify colors and communicate color information, while manufacturers use them to ensure color accuracy during production.

The primary purpose of spectrophotometers in the printing industry is to enable precise linearization and calibration of printing processes. They allow both spot and automated measurements, which are essential for creating high-quality ICC color profiles.

This is exactly the device that helps printers reproduce the precise color specified by the client in the original artwork.

So, everything the client can influence in packaging production happens at the prepress stage — specifically, during the preparation of the original layout. Everything defined in the design must be transferred to the final packaging.

If an incorrect color is specified in accordance with printing standards, this is a designer's error, not the printer's.

This is also why a client's presence during press setup is generally not encouraged — simply because they do not possess the specialized knowledge required in printing.

A signed proof sheet cannot truly be considered a reliable reference. For example, printers know that a freshly printed (wet) sheet will dry over time, and the color will change as it dries.

Additionally, some products are coated with full or spot UV varnish, which also alters color appearance. These factors are always taken into account by printing professionals - but rarely by clients, as their expertise lies in other fields.

Importantly, a designer creating the original layout should have this knowledge and consider it during the design process.

So, what should you know when deciding whether to attend press setup at an offset printing house?

Press setup should not be seen as a free opportunity to fix all mistakes at the last moment. In reality, things are far more complex.

If a layout error is identified by the client after the setup process is completed, it may lead to stopping the print run due to the client's fault — and result in an additional charge for setup.

«Adjusting color on press» (adding or reducing ink, etc.) is not possible without violating offset printing technology. Such actions would require stopping the press and making corrections to the file or original layout — for example, adjusting ink percentages or changing the ink sequence.

The cost of press setup includes:

- technical preparation and machine calibration;

*Packaging
as art*

- cost of printing plates;
- paper used during setup;
- consumables (inks, rubber blankets, etc.).

If the job involves complex printing elements (solid fills, Pantone colors, sensitive mixed tones), setup costs are calculated based on the time and materials required.

Conclusion

In recent decades, printing has undergone rapid technological advancement and digital transformation. As a result, clients can now expect printing houses to accurately realize their ideas without the need to spend time visiting production facilities.

«MEDICINE AS A METAPHOR»

To conclude this chapter, I would like to highlight an important project by contemporary Spanish artist Sara Landeta, titled «Medicine as a Metaphor».

This project aims to show different perspectives on illness. Sara seeks to convey to patients that belief in healing - alongside medication - plays a significant role in recovery.

To express this idea, she paints beautiful birds on the reverse side of used pharmaceutical cardboard packaging. These birds symbolize a «captured» patient longing to escape illness.

Here is how she describes her work:

«The project consists of a collection of 120 medicine boxes that were used by different patients in their fight against illness.



Photo 162. Contemporary pharmaceutical packaging



Photo 163. Work by Sara Landeta, project
«Medicine as a Metaphor»

The



Photo 164. Work by Sara Landeta, project
«Medicine as a Metaphor»

reverse side of each package is illustrated with a wide classification of birds from various species.

Birds are the only creatures that symbolize freedom — only they can convey, through art, the connection between earth and sky. At the same time, birds are also among the animals that can live in captivity.

This contrast between the natural and the artificial represents the patient as a captive being, while the bird becomes a metaphor for their inner state.

By creating this collection of birds inside pharmaceutical packaging, I held on to a single idea: I will learn to be a bird in captivity. Birds long to fly, and that is what gives them meaning in life».

PART 4

***THERE ARE THINGS
THAT CANNOT BE REPLICATED...***



My Slavena

I always say: my Slavena. And not because it belongs to me. After all, if you think about it, it was already contributing to the country's economy at a time when I was still a child, just learning the basics of mathematics.

The question «Why should we work specifically with Slavena?» I always reinterpret in my mind as: «Why should we work specifically with you, Valeria?»

Because for me, Slavena is me. I grew up alongside it, developed with it, knew about its struggles and secrets, and believed that all difficulties could be easily solved. It just seemed that adults don't

always see the right solution right away - they tend to overcomplicate things.

Can't you just walk up to someone and say, «Let's work together. I'll make packaging for you?»

Now I know - yes, you can. But it's unlikely such an approach would succeed. Although I think each of you can remember being like that as a child - when everything seemed simple. When you imagined that if adulthood had such difficulties, then there was nothing to fear about growing up. But I've digressed.

Why should you work with me - that is, with Slavena? And, conversely, why should you work with Slavena - which means, with me? Since I associate myself with my company, allow me to speak about it as if I were speaking about myself.

If we trust science, our personality - everything we think about ourselves - is essentially an illusion. We worry about it, demand respect, recognition, and love for it. We develop it, «grow» it, search for meaning and purpose.

In other words, from a psychological point of view, we are somewhat irrational. But perhaps when we say something like «create yourself», we are actually on the right path.

Why? Because we invent a kind of «subject» with which we identify. We decide to develop it, assign it qualities ourselves (though social media often helps by telling us what we should be like), we tell this «subject» who it is and what it should or shouldn't tolerate. In essence, we create a kind of personal legend - one that we like, and one that makes others admire «us».



21 Reasons to Work with «Slavena»:

1. Experience in carton packaging production since 1999
2. State-of-the-art equipment
3. Multiple in-house production facilities
4. European-quality materials
5. Highly skilled specialists with extensive experience
6. Clients - leading players in their industries
7. Quality and deadlines are top priorities
8. Passion for our work
9. Care for our clients
10. Love for packaging itself
11. Availability of inspection equipment
12. We bring peace of mind
13. Capable of producing any print run
14. Able to handle packaging of any complexity
15. Deep expertise in packaging history - we even wrote a book about it
16. We do not claim ownership of your original designs
17. We listen to you
18. We provide consulting services to our clients
19. We care about environmental sustainability
20. Just like you, we love the sea, the sun, and your happy smiles
21. We share industry insights through our YouTube project ... and that's not all.

The problem is that we also want to be liked by an image we have invented ourselves. But who these people really are – and in the case of a company, we need to appeal to real people – we do not truly know, because they are living within their own constructed narratives as well. In other words, we as a company must appeal not only to ourselves, but also to the imagined versions of our clients created by our own minds.

And each stakeholder sees things differently: the executive sees one picture, the manager another, and the technologist yet another. We are expected to say the «right» things - which we consider correct - while for each of them, the «right» things may be completely different, even opposite.

Of course, when asked such a question, every company wants to present itself in the best possible light - in a way that will appeal to a potential partner. And I always want to say about Slavena that we are the best. The best - in what? In quality? Yes. In printing? Yes. In what exactly? I could list many things. But here, I would like to mention an interesting study. Have you heard about the research conducted by the American College Board? It found that:

- 100% of high school students rated their ability to get along with others as «above average»;
- 60% (out of a million surveyed) placed themselves in the top 10%;
- 25% - a quarter! - believed they were in the top 1%.

You might say: «Well, they're just kids». But we, as educated

*Packaging
as art*

adults, are surely different... right? I agree.

In fact, the story becomes even more astonishing when it comes to adults. For example, 94% of teachers believe they perform their job «better than average». Meanwhile, 40% of engineers consider themselves to be in the top 5% of the best professionals. The same applies to drivers, doctors, printers, designers, executives - and companies as a whole.

And every printing company, from the smallest to the largest, will tell you that it belongs to the top 5% - in the country, in the world, or even in the galaxy. But who is the judge? Only our own opinion. Even awards today, unfortunately, often say very little. They reflect more about marketing efforts and a company leader's attitude toward recognition than actual quality.

The truth is that each of us tends to place ourselves among the top 5%, and most of us have an inflated self-assessment — even if we believe otherwise.

The reality is that no person or company can be evaluated «objectively». Someone will always be better in some aspects, worse in others, and there will always be things we prefer to hide. We highlight our strengths, conceal our weaknesses, and sometimes even embellish our image - including on company websites.

So why should you work with us? I'll give a simple answer. Because I love my company. «Yes, everyone says that», you might respond - and you'd be right. But there is something more: my company loves what it does, and it loves packaging. And we come full circle: I love packaging, and I love delivering

work to clients that truly makes them happy. Because I feel proud when my clients say: «We work with you because you remove problems. You give us peace of mind». And that is what truly matters - not how many machines we have, how many employees, what my qualifications are, or what certificates I can present. We have all of that. And so do many of my colleagues in the printing industry - those whom I can place alongside our company (though not, of course, alongside myself). Yes, we have unique, high-end, innovative machines - some of them one of a kind in the CIS. Yes, we train our employees, obtain all necessary certifications, implement lean manufacturing, and make a significant contribution to the country's economy. But none of this is what truly determines the success of our clients.

What matters is love. Not only love within a family or for loved ones - but love for your work, for what you create. Love for what is deeply valued by the person who entrusted you with creating the main «salesperson» of their product - the packaging. No matter how confident a buyer may be that packaging does not influence their decision, in reality, our relationship with it is much more complex. Packaging is a part of ourselves.

The desire of consumers to showcase their ability to spend freely is an important aspect of modern packaging. This applies not only to perfumes, but also to alcohol, sweets, and even pharmaceuticals. It creates a sense of luxury and privilege.

Have you ever noticed how a woman touches high-quality perfume packaging, for example? And how much sensuality is

embedded in literature about packaging design... I think you know what I mean.

Packaging both reveals and conceals at the same time. It seems to beg to be unwrapped, but after the product is consumed, it loses its magic and turns into waste. And then the cycle repeats again.

In essence, the purpose of packaging is not so much to protect the contents as it is to engage consumers in the process of repeatedly using the product.

Packaging itself is a one-time tool used to achieve a larger goal - selling the product and continuing the production cycle.

In the process of creating packaging, what I love most is the printing stage itself. And I would recommend that you, at least once, ask your production partner to show you this fascinating process.

Once, I wrote a post about it on Facebook - here's a short excerpt:

«...

I walk into production, look at the make-ready sheet, take measurements — and realize: no, it's still not right. The work is difficult. The client demands printing according to a reference sample. We keep working.

Add Violet? Reduce Cyan? Increase density... And what about the cardboard? The varnish may sink in, the color might change...

A heavy Pantone... my eyes are already tired. The printers adjust something, reduce something, consult with each other, press buttons. Start, stop. Start again...

Inside the machine, bright yellow lights turn on and off. You

stand nearby — careful not to interfere, but close enough to give the signal when it's time to proceed.

I walk up to the printing press. Climb onto it, look at the ink fountains where the ink seems to “breathe.” And it really does breathe.

A roller spins nearby, and suddenly an association forms in my mind:

the ink is a woman, and the roller is her admirer. It turns for her, so that she can breathe and illuminate the world with her unearthly beauty. I watch this romance, completely captivated...

— Valeria, can I help you? Explain something? — the technologist asks gently.

— No, thank you. I just love printing so much — it's hard to put into words.

He smiles with full understanding. Clearly, he loves printing no less than I do.

— That's nothing... Wait until we launch our new machine. That's where the real beauty is...

At that moment, I realize that this place — production, this magic of printing — occupies a huge part of my heart. And it is precisely so that this magic continues to exist that I spend so much time in my office. Yes, I understand how much beauty I miss around me — but right now I am filled with love, and that is what matters.

What matters is to love what you do and to live through it. Without that — everything else falls apart.

You know what I want to say? I hate packaging on people who



use it to deceive. But I truly love packaging when it represents a first-class product. Maybe that's why only the best people and the best companies come to us...?

With great love in my heart and deep appreciation for your work,

Valeria

A handwritten signature in blue ink, featuring a large, sweeping loop on the left and a more complex, stylized set of strokes on the right.

Deputy General Director, Slavena LLC

*Olga Bulbakh,
CEO of the marketing company
MAZER Agency*



THE INFLUENCE OF PACKAGING

If all manufacturers truly understood the immense power that packaging has in influencing consumer choice, they would pay far more attention to it.

The era of scarcity ended in the last century. Today, supermarket shelves are filled with thousands of options.

And even if a manufacturer manages to secure shelf presence, it does not guarantee that a buyer will choose their product.

A person moves through store aisles almost on autopilot, while their brain relies on visual cues and makes decisions in fractions of a

*Packaging
as art*

second.

Yes, brand strength and media presence play a major role. But there is a third, equally important factor that determines consumer choice - packaging.

Packaging performs several functions.

Let's take a closer look at each of them.

The first - and perhaps the most obvious - is that packaging must attract attention.

While a tired mother circles the store for the tenth time, trying not to forget anything for dinner, your product's task is not just to be seen - but to stop her for at least 10 seconds.

To make her come closer and pick it up for further consideration.

- Tools for attracting attention can include:
- the shape of the packaging



*Packaging
as art*

Photo 165. Even pharmaceutical packaging can be original

- a color scheme that helps you stand out among competitors
- a photo of the product or its ingredients, or a window that allows the product to be seen
- instead of a photo, an illustration, unique artwork, or a brand character
- a distinctive font that is unique to your product

The second task is to help the consumer recognize the brand.

Packaging should communicate the values that you embed in your brand.



Photo 166. A beer label that definitely won't go unnoticed

If your brand stands for naturalness, then the use of bright, acidic colors is clearly inappropriate. Pay close attention to how and where your logo is placed. After all, you invest in brand recognition for a reason.

*Packaging
as art*

The third task is to create a dialogue.

Perhaps interacting with new packaging can be compared to a first date. You have only a few seconds to make an impression. And even if the buyer is already charmed by your appearance, don't let



Photo 167. Naturalness expressed through minimalism

them walk away because of a lack of meaningful communication.

YES! Packaging can - and should - speak. And it must do so quickly and to the point.

Put the most important information for the customer on the front side. Make sure they don't need to read fine print to understand the key message.



Photo 168. Packaging that creates a vivid dialogue

Packaging
as art

A phrase like «SUGAR-FREE» can increase your sales dramatically.

Don't forget about the magic power of QR codes. They can lead your customer to a video recipe or additional information that simply doesn't fit on a small package.

The fourth task is to build trust.

Interacting with packaging is truly an intimate experience. You can be playful or speak with authority.



Photo 169. Bring the most important messages to the forefront

There is only one thing I ask of you - don't lie to your customer. It's better to be imperfect, but honest.

If a customer discovers deception after reading the ingredients, they will never return to your brand.

The fifth task is to make life easier.

You might be surprised, but packaging can truly simplify your customer's life. Let me share a story about how I switched to a different brand of mineral water because of a new bottle cap.

For many years, I bought water from the same manufacturer - until one day they changed the caps. I simply didn't have enough strength to open the bottle. To be honest, I tried a few times out of loyalty to the brand, but eventually I gave up. What a relief it was when I switched to another company's product.

Remember: packaging should be easy to open and should adapt to how the customer uses the product.

Think through every detail:

- in what situations the product will be used
- how it will be carried
- how it will be stored



Be forward-thinking - decide in advance what the customer should do with the packaging after use. Can it be recycled? (Add appropriate labeling for environmentally conscious consumers.)

Perhaps you can even придумать an interesting way to reuse it and explain this on the inside of the package.

For example, suggest turning it into a bird feeder or a construction toy for children. Be original - so you'll be remembered.

And perhaps the most important task of packaging is the sixth:

To make the customer fall in love with it - and come back to your product again.



Photo 171. Packaging worth posting on Instagram

*Packaging
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It consists of a combination of all the points mentioned above.

I would also add the importance of tactile sensations. After all, visual appearance is not the only factor that makes packaging memorable. You can stand out through touch, by using unusual materials and coatings.

Research shows that packaging brings up to 50% of customers back to stores.

Now imagine that your packaging is so original that young people want to post photos of it on Instagram, sparking interest among new potential customers.

This means that packaging does not merely serve the function of storage - it also earns money for you.

Approach every detail and every stage of production responsibly, and you may be surprised by how much you previously underestimated its potential.

CONCLUSION

*«Even God needs bells!»
Motto of French advertisers*

Since its emergence, carton pharmaceutical packaging has not undergone many changes in its structure - unlike its design.

Packaging design has been influenced by numerous factors, including the ingenuity of early merchants who realized that well-designed medical packaging could increase sales, as well as changing fashion trends.

From the moment it first appeared on store shelves to the present day, an increasing number of requirements have been placed upon it - and it seems that these demands will only continue to grow and become more stringent.

French advertisers say: «Even God needs bells!»

It seems appropriate to apply this idea to pharmaceutical packaging. After all, for a long time it has been selling products on its own - effectively replacing salespeople and consultants.

It has individuality. It allows us to dream and believe that

*Packaging
as art*

dreams can come true. It becomes an assistant in making choices, inspires faith in healing, emphasizes the authority of the manufacturer - or, on the contrary, keeps it in the background.

No matter how much we resist the idea that packaging influences our decisions, it has been - and will remain - our invisible advisor.

Pharmaceutical manufacturers continuously work on packaging design so that it can «speak» to us on their behalf, build trust, and sell the product. Designers use bright colors, modern finishing materials, embossing, gold foil, unusual structures, and more to capture our attention.

And if we also consider that modern pharmacies are turning into small supermarkets, where consumers can browse and choose products themselves, we can confidently say that we are under the influence of the best packaging designs.

Who knows what packaging will look like in 20, 30, or 40 years? Here, imagination must take over, because none of us truly knows what awaits it.

Perhaps carton pharmaceutical packaging will take on new forms, or each package will include child-proof or tamper-proof protection. Maybe it will speak directly to consumers, explaining the purpose of the medicine and how to use it. Or perhaps one image will magically transform into another.

Perhaps new trends will emerge, and packaging may feature minimal printing - nothing more than the product name. Or, on the contrary, the use of multicolor printing and attention-

grabbing effects might be restricted.

Who knows what the future holds?

And yet, most likely, packaging will go through many transformations - but I doubt it will ever disappear. It will remain a reliable assistant for manufacturers, designers, marketers, retailers, and even us, the consumers.

Packaging is a simple yet powerful tool of communication and consumer engagement.

After all, as Thomas Hine once said:

«Packaging is seduction. It helps the product reach the consumer».

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