

THE HISTORY OF PACKAGING – *Part One*

# THE EVOLUTION of PACKAGING MATERIALS

LESSONS FOR TODAY'S BRAND OWNERS



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## ALL FIRED UP & NOWHERE TO GO

The development of packaging is inextricably linked to food. For much of early human history (think Stone Age), food was eaten immediately and on the spot. But the need to transport food and water got people thinking about containers.

**The History of Packaging** begins with packaging materials, but ultimately is inseparable from attempts to make packaging attractive. We even see new substrates and packaging shapes driving design. Yet before design could emerge in support of branding, packaging went through a series of material transformations reflective of larger technological shifts.

Packaging began in Egypt approximately 3,500 years ago, and as it developed, it was influenced by Napoleon's wars, a Brooklyn printer's mistake, two brothers named Kellogg and a little help from Inuit tribal knowledge in the arctic.



## Gourds Before Glass

Several millennia before a Campbell's Soup can became iconic, the first attempts to put food in containers borrowed from the natural world: gourds, leaves and hollowed-out logs were common. Animal skins were also a good option for tying up food and hitting the road.

The ancient Egyptians (circa 1500 B.C.) were the first to "industrialize" a food/water container by developing glass water pots. The pots were colored and it wouldn't be for another 500 years until glass makers could produce transparent glass.



### **THE TAKEAWAY**

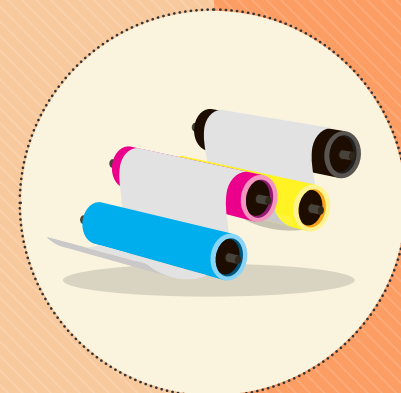
*Glass milk bottles, once artifacts, are surging back in the U.K and Australia. Why? Shoppers and retailers like the recycling ease of glass bottles.*



## Flexible Packaging Born in the East

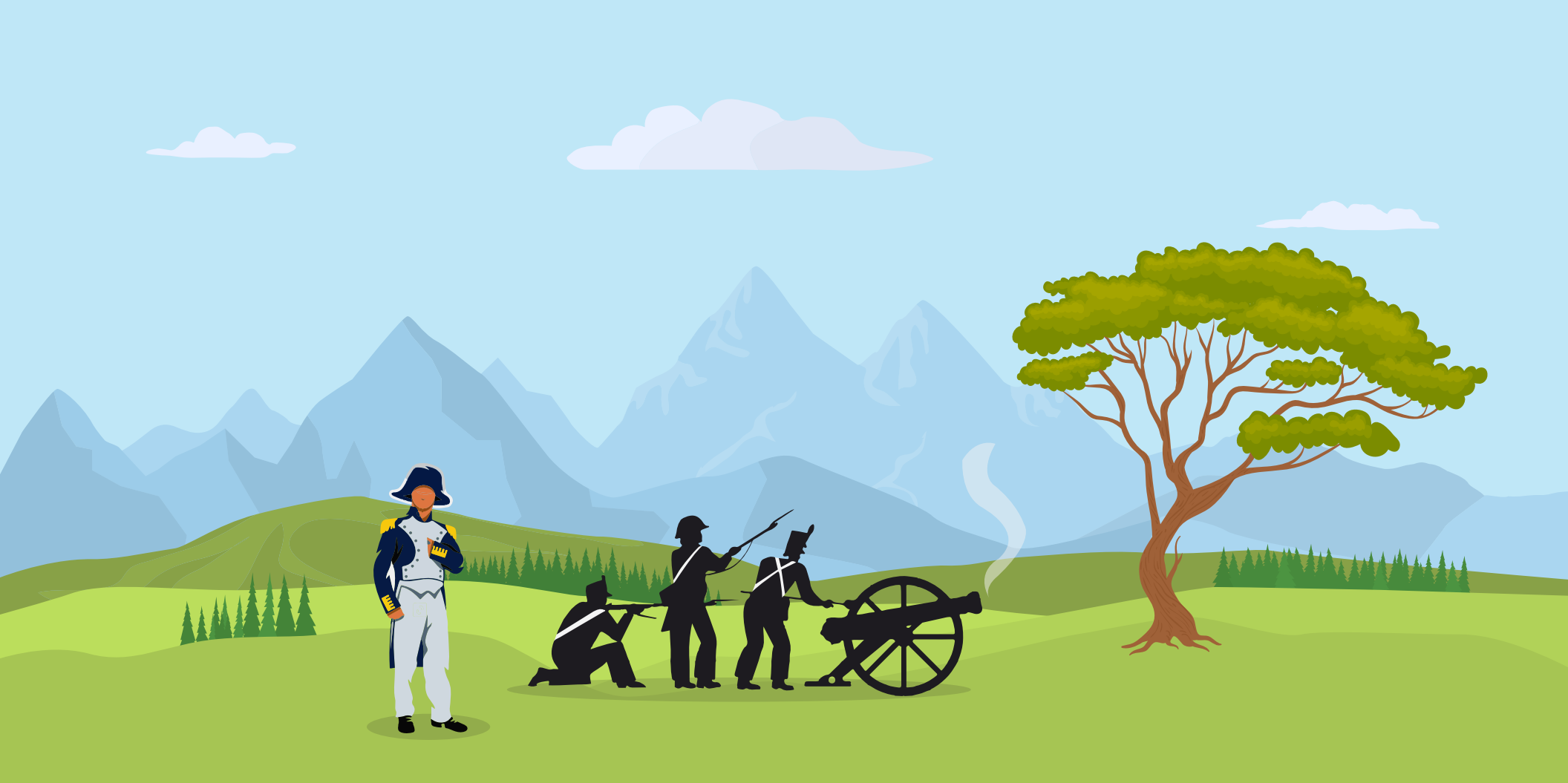
Around 200 B.C., the Chinese began using treated mulberry bark to transport food. This “technology” developed in the following centuries into paper making (extracting cellulose fibers from plants). Paper is the oldest example of flexible packaging.

The skill of Chinese paper making took many centuries to reach the west. It wasn’t until 1310 the technology arrived in England. It would be another 400 years until it arrived in North America. The evolution of paper eventually became industrialized, when in 1867, a process for extracting cellulose from wood pulp was developed.



### **THE TAKEAWAY**

*Paper packaging is participating in another phase of “industrialization” today, as the digital print revolution transforms the packaging and label industry.*



## Napoleon: The Emperor of Canned Food

The French Army was very busy during Napoleon Bonaparte's time. He kept them marching across Europe invading one country after another, but he found feeding them was a great challenge. His answer was to offer 12,000 Francs to anyone who could help improve food preservation.

It took 15 years, but Nicholas Appert ("Father of Canning") got the prize money in 1805 by proving food could be preserved for an extended time by boiling it at high temperatures and then sealing it in glass containers. British inventor and merchant Peter Durand quickly took this idea and demonstrated it could be used with a tin can. The same method is still used today.



### THE TAKEAWAY

McCormick recently shifted its iconic Old Bay and Black Pepper products from tin to more easily recyclable plastic. It reflects a larger industry focus on sustainable packaging.



## The Paper Bag Opens Packaging's Future

The Victorians didn't know the joy of eating Fruity Pebbles while staring at the back of a cereal box, but they did produce the first cardboard box in 1817. A thinner version of this, paperboard carton, was eventually used for cereal boxes.

This innovation was followed shortly by the first commercial production of paper bags in England in 1844. Across the Atlantic in 1852, American Francis Wolle invented the bag-making machine, which eventually paved the way for glued paper sacks (the kind we use today) and the development (as we'll see) of the first semi-flexible packaging.



### **THE TAKEAWAY**

*Flexible packaging today, such as stand-up pouches, is increasingly popular with consumers for sustainability reasons. Growth is estimated at 4.3% through 2022.*



## The Brooklyn Biscuit Connection

Before Brooklyn was cool, it was a major manufacturing center. In the 1870s, a Brooklyn printer and paper bag maker named Robert Gair, accidentally invented the first automatically-made carton (a machine mishap led to the bag being cut), which became the world's first semi-flexible packaging. And today, these folding cartons are the backbone of the dry, processed food market.

The first brand to use the folding carton was the National Biscuit Company (NABISCO). Until then, biscuits/cookies were sold unpackaged in barrels. They used the cartons to package their Uneda brand biscuits. The name was suggested by one of Gair's sons, who reportedly told NABISCO, "you need a name." The lesson: good branding is often simple.



### THE TAKEAWAY

*New substrates can revitalize an established brand. NABISCO's Oreos were created in 1912 and first sold in tin and folded cartons. In 1963 they first appeared in their iconic clear plastic packaging. That "look" lasted 49 years.*



## The Corn Flakes Cardboard Cure

Americans like their cereal in cardboard boxes. This preference might be attributed to William Kellogg, who in 1906 began using cardboard for cereal cartons. William and his brother Dr. John Kellogg ran a sanitarium in Michigan and developed Corn Flakes as part of a health regimen for their patients.

But the original Corn Flakes packaging differed radically from what we know today. Kellogg initially wrapped the cereal box in wax paper (marketing copy printed on the outside), leaving the cereal “free” inside the box. The heat-sealed bag was meant to make his product stand out. His son, John L. Kellogg, changed the practice so the bag was inside the box.



### THE TAKEAWAY

Cereal sales have been slumping for years. Kellogg's now offers cereal in pouches in an attempt to rebrand cereal from a breakfast food to a snack.





## A Deep Freeze for Peas

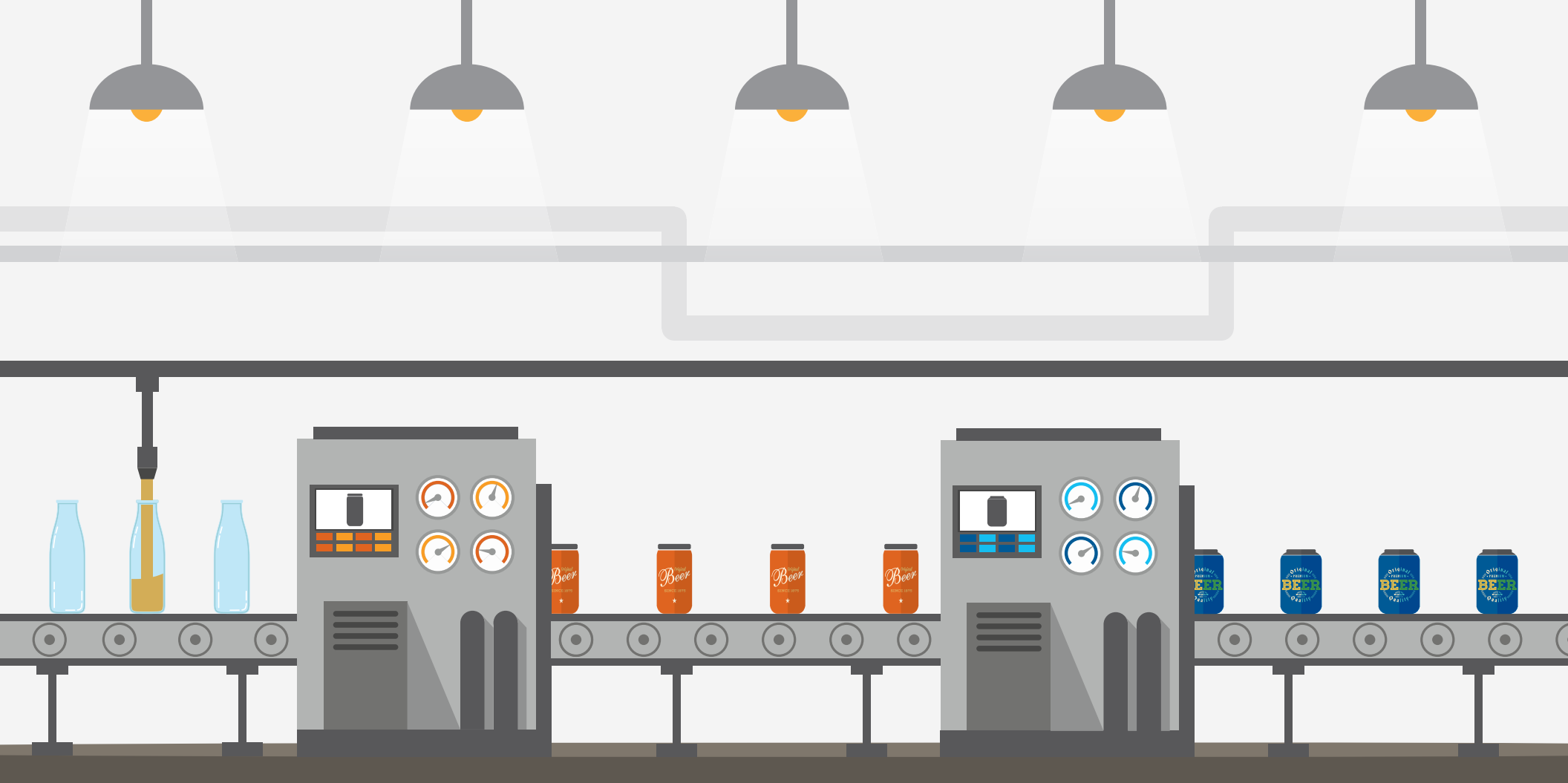
Napoleon pushed food preservation forward in the 19th Century and then Clarence Birdseye advanced it in the next. Birdseye is the “father of frozen food” who, while working in Northern Canada, learned the technique of fast freezing food from the Inuit tribe.

Yet frozen food packaging didn't yet exist in the 1920s. Birdseye knew that this new packaging had to be waterproof, eliminate air pockets and utilize waterproof ink. Cellophane was tried, but it wasn't yet waterproof. Birdseye finally approached DuPont, who produced a waterproof version of cellophane.



### **THE TAKEAWAY**

*Retail development and brand innovation have always been linked. The growth of large supermarkets after World War II helped fuel a frozen food boom in the 1950s.*



## Keeping Tabs on Aluminum Cans

The first beverage can (tin-plated steel) was made by Krueger Beer in 1935. Until then, beverages were only available in glass bottles. Soda soon joined beer inside cans, but there was no “pop tab” in the early years; consumers had to use a “church key” opener to puncture the top.

In 1959 the beverage can got its modern update when Coors introduced the aluminum can (less costly than tin). Yet the problem of how to puncture it remained. Also in '59, a farm boy named Ermal Fraze found himself with a Schlitz and no church key. He eventually had the inspiration for the pop tab and the rest is history.



### THE TAKEAWAY

*The first “pop tab” can customer was Pittsburgh Brewing Company in 1962. Several other manufacturers passed on being the first adopter. The steel city brewer’s risk was duly rewarded, when beer sales soared 400% in the first six months with pop tabs.*



## The Revolution of Plastic Packaging

Plastic is our newest packaging material. Various plastic substances were discovered in the 1800s, but they weren't ready yet to serve as packaging. It wasn't until the invention of cellophane in 1908 that the foundations of plastic packaging were laid.

In 1946 an underarm deodorant in a spray bottle named "Stopette" debuted. It was one of the first commercial plastic bottles. Decades later, PET (Polyethylene Terephthalate) plastic bottles appeared in 1977, and it quickly became the standard container for plastic bottles (strong, non-toxic and 100% recyclable).



### THE TAKEAWAY

Packaging and recycling are now forever linked, but the union only began in the 1970s with changing social values. Today, there is another social change: consumers want product transparency, and packaging has to communicate nutrition info and a food's origin.

# To be continued.

Next in our series, discover how and when design and branding became a part of packaging's history in **Chapter 2: The Birth of Packaging Design**



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