











## PACKAGING HISTORY:

## FROM WOOD CRATES TO HIGH ART

We all live and work in a society of billboards, online ads and sophisticated product marketing. Branding is so ubiquitous it is difficult to imagine product containers without branding or design elements. But for centuries, food, beverages and other consumer goods were largely sold in nameless glass jugs, wood crates, steel cans and cloth bags. It wasn't until the late 19th Century that tin and paperboard products became cheap enough for manufacturers to utilize them on a wide scale.

In the 20th Century packaging materials and packaging design merged to become one. The contour glass Coca-Cola bottle is a substrate, brand and package design all in one. The same holds for iconic food packaging like the Pringles potato chip can and the Tootsie Roll package. In many cases, substrates drive design. The advent of clear cellophane in the 1960s enabled a generation of children to see the delicious OREO cookies inside.

In the 1970s, private label packaging went generic, while package designers began working with the black lines of the new UPC barcode and later, in the 1990s, with the new Nutrition Facts label.



1860's

## In the Beginning...

Until the late 1800s, packaging (containers) was largely an expensive either/or proposition: practical and durable for storage or reserved for luxury goods, such as jewelry or premium foods. These were not disposable items, and some manufacturers recognized an opportunity to promote an "after use."

The Dixie Queen company began designing its punch-cut tobacco tins to resemble picnic baskets (and later lunch boxes).

Its name was stamped on the tin "basket' and these items remained popular into the early 1900s. The rise of dual-use packaging in the late 19th Century provides some of the earliest examples of branded consumer packaging. The tradition continues today with, among many examples, consumers using recyclable, branded tote bags from their favorite grocery stores.



### THE TAKEAWAY

Today, multi-use
packaging has a new
multidimensional
meaning. Because of
innovative barcodes,
"connected packaging"
not only protects
the product, and can
be recycled, but also
can trigger ongoing
conversations with
consumers.



### Cough Drop Knockoffs Lead To Branding

The two-bearded brothers on Smith Brothers Cough Drops packaging are real brothers. Their image first appeared in 1866. The cough drops were popular and competitors began hawking cough drops in the streets under similar names. The brothers decided to mark products by putting their pictures on product packaging. It was arguably the first use of branding on consumer packaging, in its most simplified form, i.e., placing a name/image on the product to denote ownership.

A year later, Dr. Lyon's tooth powder printed its name and simple design elements directly on metal (tin) boxes. It was the first example of this application and brands such as Saltine crackers and Cracker Jack utilized tin well into the middle of the 20th Century. Today, such dry goods are sold almost exclusively in folded paperboard cartons.



#### THE TAKEAWAY

Although toothpaste has largely replaced tooth powder, the personal care products segment is going strong and is dominated today by plastic packaging. Plastic is king and accounts for 60% of the market, and is expected to grow 12% by 2019\*.

\*Association for Packaging and ocessing Technologies



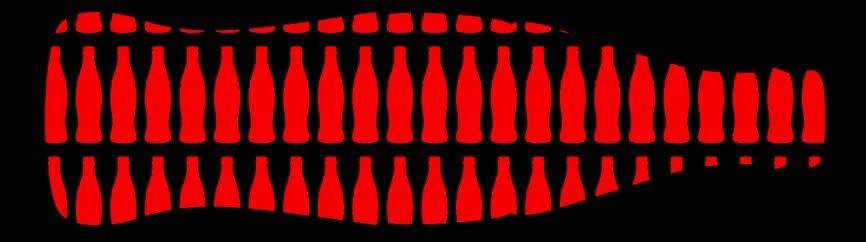
## Designed, Branded, Nationally Promoted

One of history's first, fully-designed, branded and nationally-marketed consumer packaged goods was NABISCO's Uneeda biscuits' 1896 launch with the famed little boy in the yellow raincoat. There had likely been regional examples of such efforts, but no manufacturers until then had had the resources and ambition to reach the entire country.

NABISCO was in a fierce snack war with Cracker Jack and believed its waxed paper liner was its unique selling proposition. NABISCO invested \$1 million in advertising and branding, and the experts decided the boy in a raincoat would personify the wax paper protection. The marketing campaign and branded packaging were a success, and the Uneeda brand thrived until 2008 when it was discontinued.

### THE TAKEAWAY

A national ad campaign today isn't enough to be successful. Consumers are no longer passive receptors. They want control and information. Brands need to think digital, and add advanced codes to its packaging, such as Digimarc Barcode, to make it easy for consumers to scan and get the info they want.



### The Curve Seen Around the World

The Coca-Cola contour glass bottle is beyond-iconic, it's epic. Coca-Cola had been a popular soda fountain drink beginning in the 1880s. Coca-Cola began bottling its soda in 1900 in straight-sided bottles, but competitors soon began imitating its distinctive brand script, and using names like "Koka-Nola." In 1914, Coca-Cola went to its bottling suppliers and asked for a distinctive design.

Coca-Coca filed the patent for the contour glass bottle in 1915. In the ensuing decades, the contour bottle essentially became the brand. In 1961, the U.S. Patent Office officially recognized this bottle as a trademark. It was virtually unheard for a commercial package to be given such status.



#### THE TAKEAWAY

Many of Coca-Cola's glass suppliers protested the shape. The new bottles were expensive and required a change in process. But Coca-Cola convinced them. Today, brands may have suppliers unfamiliar or resistant to digital packaging options. The benefits of an innovative change can be huge.



P&G Bets on a Tidal Wave of Color

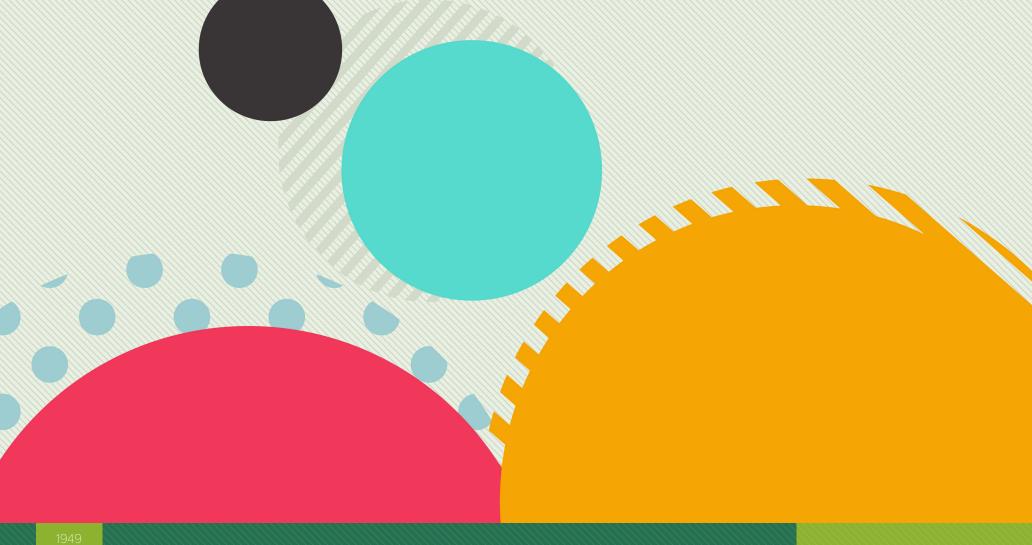
Many factors make package design memorable, but it's hard to argue with strong color, imagery, fonts, copy and the right substrate. Procter & Gamble certainly got it right with Tide detergent in 1946. It was designed by a famed architect and designer and is considered the first national product to use bright colors.

According to AdAge, "The dominant orange and yellow used for the Tide box were intended to alarm and convey a sense of heavy-duty power...The bold lettering of the word 'Tide' was in blue and intended to offset the possible dangers implied in the orange and yellow with a safer, reassuring emotional message." Good design is always good messaging.



### THE TAKEAWAY

Embracing disruptive
technology can pay off
big time. Tide detergent
was based on synthetic
compounds, not soap
chemicals. It was a major
breakthrough in soap
making practices. It was
a risk, but sales exploded,
and positioned Procter &
Gamble for years of growth.



## Designers Find Freedom with Flexography

Up until the 1930s, package designers were hamstrung by letterpress printing technology, which limited substrate options and design capabilities. The invention of flexographic (flexo) printing (aniline dye on flexible plates made of rubber/plastic) solved this. Printers could print on a variety of substrates, such as metallic films, milk cartons and folded cartons, and designers could ensure sophisticated image/color accuracy.

The first aniline dyes were made with coal by-products and by the 1940s the FDA had banned the ink for use with food packaging. Until then, flexo was known as "aniline printing." In 1949, a new, safe ink was created and, to remove the aniline-stigma, the printing process was renamed flexographic printing.



### THE TAKEAWAY



## Package Design Inspires Pop Art

The Campbell's® Tomato Soup Can was famous well before Andy Warhol. The original design dates to 1897. It had three strong design elements: red-and-white colors (orange and blue for a year), the Campbell's cursive script and the gold medallion in the center of the design. A clear and simple presentation—a lesson for designers today.

In 1962, the pop artist Andy Warhol created 32 silk-screened paintings of all Campbell's flavors, turning this commercial design into fine art. Warhol's early career was as commercial/advertising artist and he understood the power of an iconic brand in a consumer culture. Today, the lines between the art world and marketing/design are often blurred.



### THE TAKEAWAY

Top brands are not afraid to evolve and embrace new technologies, substrates or designs. In 2017 Campbell's® introduced its Campbell's Well Yes! They look entirely different from the classic Campbell's label and were meant to represent whole foods all natural ingredients.



### **Private Brands: From Plain to Premium**

Private brands packaging got an undeserved bad rap in the 1970s during a period "stagflation," high prices and slow growth. The "generics" with their plain-white packaging and non-branded script with "BEER" or "MILK," conveyed an impression of low-quality goods and this stuck for years.

Over time, retailers transformed generics into premium store brands. Walmart introduced the Great Value brand in 1993 and Costco introduced Kirkland Signature™ in 1995. Their products utilized the same contemporary scripts, colors, substrates and imagery as national brand products.



#### THE TAKEAWAY

Private brand sales are expected to keep growing. The Private Label Manufacturers Association expects market share could grow as much as 10% through 2027.



# **Nutrition Fact** Serving Size 100 g

**Amount Per Serving** Calories from fa Calories 250

% Daily Va

**Total Fat 4%** Saturated Fat 1.5%

Trans Fat

Cholesteral 50mg

Sodium 150mg

Total Carbohydrate 10g

Dietary Fiber 5g

Sugars 3g

**Protein** 16%

Vitamin A 1% VitaminC 39

Calcium 2% Iron 2%

\*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

.e	Nutrition Facts Serving Size 100 g		
	Amount Per Serving		
	Calories 250 Calories from	n fat 10	
	% Daily	Value*	
	Total Fat 4%	4%	
	Saturated Fat 1.5%	4%	
t 10	Trans Fat		
	Cholesteral 50mg	28%	
lue*	Sodium 150mg	15%	
_	Total Carbohydrate 10g	3%	
4%	Dietary Fiber 5g		
	Sugars 3g		
4%	Protein 16%		
_	Vitamin A 1% • VitaminC	3%	
	Calcium 2% Iron 2%		
28% 15%	*Percent Daily Values are based 2,000 calorie diet. Your daily val may be higher or lower depend your calorie needs.	ues	
3%	Nutrition Fac Serving Size 100 g	cts	
	Amount Per Serving		
	Calories 250 Calories from		
	% Daily	_	
_	Total Fat 4%	4%	
	Saturated Fat 1.5%	4%	
	Trans Fat		
/	Cholesteral 50mg	28%	
<u>⁄</u>	Sodium 150mg	15%	
	Total Carbohydrate 10g	3%	
	Dietary Fiber 5g		
	Sugars 3g		

Protein 16%			
Vitamin A 1% • VitaminC 3%			
Calcium 2% Iron 2%			
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.			
Nutrition Facts Serving Size 100 g			
Amount Per Serving			
Calories 250 Calories from fat 10			
% Daily Value*			
Total Fat 4% 4%			
Saturated Fat 1.5% 4%			
Trans Fat			
Cholesteral 50mg 28%			
<b>Sodium</b> 150mg 15%			
Total Carbohydrate 10g 3%			
Dietary Fiber 5g			
Sugars 3g			
Protein 16%			
Vitamin A 1% • VitaminC 3%			
Calcium 2% Iron 2%			
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.			



Nutrition Fe Serving Size 100g Amount Per Serving Amount Per Serving Sedones 539 Sedones 539 Sedones 1509 Sedones 1509 Sedones 1509 Sedones 1509 Sedones 1509 Sedones 1509 Portein 150% Protein 150% Protein 150% Protein 150% Protein 150% Protein 150% Protein 150% Within 130 Vitamia Minant 130 Vitami	Amount Per Serving Calories 250 Calories in  Total Eat 4% Saturated Fat 1.5% Trans Fat Cholesteral Education
Municipo Facts  Municipo Facts	N. Cody, Valvary  Taken fina 41.  Seasoned first 15th.  Seasoned f
Nutrition Facts Serving Size 100 g	Nutrition Facts Serving Size 100 p Amount Pire Serving Clatrices 200 Cultories from fix 10 Size Fixt 416 Total Fixt 416 Total Fixt 416 Total Fixt 516 Total Fixt 517 Total
Amount Per Serving Calories 250 Calories from fat 10 % Daily Value*	Delarry Fiber 5g Sugars 3g Protein 19% Vitamin A. 1% - Vitamin C. 3% Calcium 2% - Iron 2% - Phecent Dayl vitus are based on a 2,000 caterie deit. Your deily vituse may be higher or lower deponding on
Total Fat 4% 4%	Nutrition Facts Serving Size 100 g
Saturated Fat 1.5% 4%	Amount Per Serving Calories 250 Calories from fat 10 % Daily Value* Total Fat 4% 4%
Trans Fat	Saturated Fat 1.5%
Cholesteral 50mg 28%	Sodium 150mg 15% Total Carbohydrate 10g 3% Dietary Fiber 5g
<b>Sodium</b> 150mg 15%	Protein 16%  Vitamin A 1% - VitaminC 3%  Calcium 2% - Imn 2%
Total Carbohydrate 10g 3%	Percent Daily Values are based on a 2,000 calorie clief. Your daily values may be higher or lower depending on your calorie needs.
Dietary Fiber 5g	Nutrition Facts Sorving Size 100 g
Sugars 3g	Amount Per Serving Calories 250 Calories from fat 10 % Daily Value* Total Fat 41% 4%
Protein 16%	Seturated Fat 1.5%
Vitamin A 1% - VitaminC 3%	Total Carbohydrate 10g 336 Dietary Fiber 5g Sugars 3g
Calcium 2% • Iron 2%	Vitamin A 1% VitaminC 3%  Calcium 2% Iron 2%  Percent Daily Witness are based on a
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values	2,000 calerie delt. Voor daily values may be higher or lovest depending on your calerie needs.  Nutrition Facts Serving Star 100 g Amount Per Serving Calories 250 Gefores from tat 10

may be higher or lower depending on your calorie needs.



### The Most Famous Label of Them All

The Nutrition Facts panel first began appearing on food packaging in the early 1990s (implementation deadline was 1994). The label quickly become famous in its own right. It is arguably the most reproduced graphic of the 20th Century, having appeared on more than 6.5 billion packages.

The FDA allowed for some leeway when prescribing how the panel should look. Designers can use any font size, use any single font color in the panel (the background must be white or neutral) and put the panel on the front or to the right of the front. The label designers created a flexible framework for the panel so it could expand in the future as new categories were added.



### THE TAKEAWAY

In 2016, the FDA announced the first update to the label in 20 years. The compliance deadline for most brands (\$10+ million in annual sales) is January 1, 2020. Now is the time brands can capitalize on this required FDA change to redesign its packaging and make it more dynamic, and connected.



### The Barcode Gets a 21st Century Makeover

In 1974 the first product with a UPC barcode—a package of Wrigley gum—passed over a scanner at Marsh Supermarkets in Troy, Ohio. A product package was no longer a static box on a shelf, but a communicator of valuable sales data to the retailer, and later—with the advent of QR codes and smartphones—as way for brands to engage with consumers in the aisles and at home.

Until 2010, designers had no alternatives to working with visual codes on packaging. That year an advanced barcode, Digimarc Barcode, appeared on the market. It utilizes the same data found in the UPC (GTIN, for example) and is created by adjusting the brightness and intensity of colors in package artwork. This makes large portions of the package scannable to phones, retail scanners and other machines.



#### THE TAKEAWAY

Tech adoption doesn't happen overnight. In the mid-1970s, retailers and brands waited on one another to invest in barcode technology. Retailers didn't want to buy retail scanner equipment and brands hesitated to redesign packaging.

# To be continued.

Today we live in a complex digital marketplace with new drivers of consumer choice, and a changing retail landscape. Find out how packaging is evolving to meet these needs in **Chapter Three: The State of Packaging Today.** 



Watch Chapter One: "The Evolution of Packaging Materials" digimarc.com/hop



#### **DIGIMARC CORPORATION**

9405 SW Gemini Drive, Beaverton OR 97008 T +1800 DIGIMARC (344 4627) • F +1503 469 4777

Copyright Digimarc Corporation. All rights reserved. All other trademarks are the exclusive property of their respective companies.

#### Sources

"A Brief History of Packaging," by Kenneth R. Berger, University of Florida, IFAS Extension, Dec. 2002

"Smith Brothers Cough Drop History," Oldtimecandy.com

"The Evolution of Packaging," by Mudat Mittal, Medium.com, Dec. 19, 2013

"A History of Packaging," by Paul Hook and Joe. E. Heimlich, Ohio State University Extension, May 11, 2017

"The Story of the Coca-Cola Bottle," by Ted Ryan, Coca-colacompany.com, Feb. 26, 2015

"A 'Condensed' History of the Campbell's Tomato Soup Can," by Laura Neilson, Food Republic, July 10, 2014

"A Foundation in Flexography," by Ian Baitz, Graphic Arts, Sept. 15, 2010

"The History of Tide Laundry Detergent through the Decades," by Mary Marlowe Leverette, The Spruce, Nov. 4, 2017

"Package Design," Adage.com, AdAge, Sept. 15, 2003

"How Tide Cleaned up the Competition," by David Dyer, Frederick Dalzell & Rowena Olegario, Working Knowledge, July, 12, 2004

"Private Brand Designs Rich in History," by Christopher Durham, Brand Packaging, Nov. 6, 2017

"How the Nutrition Facts Label Affects Your Package Design," by Caitlin Nelson, Greengroupstudio.com, June 15, 2016

"The Origins and Evolution of Nutrition Facts Labeling," by Sandy Skrovan, FoodDive, Oct. 16, 2017

