

Design pervades every aspect of our society, culture, and individual lives. Whether its yield is a module for landing on Mars, a symbol that unites a nation, or a ballot card, design plays a crucial role in conceiving and realizing physical and intellectual human achievement. It counts among its achievements the inventory of our most voluminous dictionaries, beginning with the characters that define the objects and concepts therein; and the list grows daily.

Though the prevailing definition of design is too much concerned with surface applications and too little with diligent research, conceiving of strategies, or authoring content, the role of the designer as vital to commerce and civic discourse is quietly gaining favor and it's giving us voice. For commerce or for altruism, locally and globally, via myriad devices or face to face, designers have good reason to speak up and our audiences have good reason to listen.

Individually and collectively, we have voice. Talk. Yell. Ask. Answer. Yes. Speak your mind and better your profession September 23 through 26 at AIGA's ninth biennial national design conference.

01 Cellophane

This *peau artificielle* (artificial skin) conceived by the French for the singular purpose of protecting tablecloths, beget the distinctly American cling wrap. The "cling" was the by-product of a laboratory accident; put to good use, it became the *caractéristique de distinction* that makes cellophane a modern-day kitchen staple.

02 Hydroponic produce

Year-round consumer demand for great-tasting blemish-free fruits and vegetables—even at up to triple the price of their organic counterparts—has growers researching new ways to create picture-perfect crops. By taking soil out of the equation, hydroponic growing techniques promise disease-, pest-, and pesticide-free produce.

03 Light bulbs

The greatest invention of the nineteenth century has become synonymous with great ideas. New bulb designs are being conceived at an astounding rate. Phillips alone produces more than 4,000 varieties to address most every need—even a 60,000-hour bulb for those hard-to-reach sockets.

04 Grocery carts

The earliest grocery cart was a folding metal frame equipped with handles and wheels, and onto which customers were bid to place handled baskets. But vanity delayed the cart's adoption. Young men feared it would make them look weak. Young women thought it unfashionable. Elders worried that the contraption would make them appear helpless.

Marketing, not modification, helped the cart catch on. Sylvan Goldman, the first shop owner to adopt the cart, hired models of all ages and both genders to pose as shoppers and push the carts around the store.

05 Panty hose

Nylon, invented by DuPont, is one of the most significant creations of the twentieth century, with applications from bulletproof vests to toothbrush bristles. Perhaps its most indelible mark is that left on woman's hosiery, previously made of fragile and costly silk. The initial design covered only about two-thirds of a woman's leg and was fastened with garters and a belt.

06 Bodies

Pectoral implants, tummy tucks, breast augmentation, liposuction, face lifts, nose jobs, braces, Botox®—if you're unhappy with what you've got, invest in a redesign. If you're underfunded or unwilling to go under the knife, the gym is both safe and relatively inexpensive.

07 Advertising

Ten years after the first infomercial premiered in 1984, this hybrid format that blurred the lines between paid advertising and entertainment generated a record \$1 billion in revenue. But that doesn't mean viewers are buying the conceit; today's more-media-savvy public can spot a half-hour infomercial, most of which masquerade as talk shows or special news reports, in just 10 seconds.

08 Boy bands

One of the first of the new breed of "manufactured" boy bands, New Kids on the Block was created by pop producer Maurice Starr, who was eager to repack his hit group New Edition for a white audience. The Backstreet Boys and NSYNC followed, and more are in the making. Tune in to ABC's *Making the Band* and the WB's *Popstars* for a look behind the scenes.

09 Beer

[Arguably] America's favorite pastime is also big business, and advertising is the key to who comes out on top. Budweiser® and Bud Light® commanded a full 31.2 percent of the market share in 1998, for which Anheuser-Busch spent \$233.7 million on media. Far behind were the Miller® brands, responsible for \$156.5 million in media buys; they secured only 14.8 percent of the market.

10 Litter boxes

Litter boxes have the potential to change your cat's best-friend status. The newest breed of litter boxes, like the IonicBreeze® from Sharper Image, are enclosures with electrostatic tubes that trap "odor-causing airborne particulates" (i.e., smells).

11 Pet food

Venture capital fed online pet food retailers grandiose sums of cash—including \$57.8 million from Amazon.com to Pets.com®—hoping for the next great e-tailing giant. In only months the hugely popular Pets.com sock-puppet dog—created by ad firm TBWA/Chiat/Day and (some say) pilfered from Late Night with Conan O'Brien's Triumph the Insult Comic Dog—helped establish the Pets.com brand and drive stock to \$14 per share. The contentiously similar mascots traded insults and lawsuits for six months before later Pets.com folded.

12 TV dinners

Necessity being the mother of invention, the first frozen dinner was concocted as the means to use up 520,000 pounds of excess turkey. Creator, Gerry Thomas of Swanson, was inspired by single-compartment airline food trays. The now famous aluminum tray was officially retired in 1986 when it was replaced with microwave-compatible packaging. The design of the tray, however, is so popular that Thomas and tray are commemorated along the Hollywood “Walk of Fame.”

13 Baby formula

Similac’s® new blow-molded white bottle by industrial design firm IDI may be the most radical thing in your grocer’s baby food aisle. From its shelf-friendly, space-saving rectangular footprint to its molded-in “blade” to break the freshness seal, designed-in ease of use—for parents and for retailers—is Similac’s primary selling point.

14 Baby food

In 1992 the Gerber® trademark came under fire by the Guatemalan government, which claimed that the smiling infant “idealized the use of breast-milk substitutes”—a violation under Guatemalan law. With the U.S. State Department behind the logo, Guatemalan law was relaxed to allow Gerber visibility across the border.

15 Diapers

New disposable-diaper designs proliferate every six to eight months like rabbits. Look for labels boasting “leak locks,” “germ guards,” “umbilical cord protection,” and “happy balloon wetness indicators” along with other noteworthy features.

16 Plastic

It’s tough. It’s cheap. It can be molded to take most any form. And, so far, it lasts forever. The material of choice in America (we dispose of nearly 16 million tons each year), plastic plays a part in every object we touch. In 1957 Disneyland unveiled the “House of Tomorrow,” with walls, roof, floors, rugs, and furniture all made of durable plastic—so durable that years later the wrecking crew had considerable difficulty demolishing it.

17 Board games

When Monopoly® creator Charles Darrow first attempted to sell his game, Parker Brothers declined, citing “52 fundamental errors” in the game’s design. Undaunted, Darrow produced the first 5,000 copies himself—and at no small sum. The game’s instant success prompted Parker Brothers to reconsider. The royalties from Monopoly made Darrow the first game designer to become a millionaire.

18 Barbie®

Since 1959 prominent designers—among them Vera Wang, Bob Mackie, Givenchy, Versace, Gucci, and Dolce & Gabbana—have been fashioning couture for the world’s most durable supermodel. At last count more than 1 billion ensembles have been tailored for Barbie and her similarly synthetic, out-proportioned friends.

19 Tools

The first multipurpose Swiss Army knife was a response to the introduction in 1889 of a rifle whose disassembly required a screwdriver. From four original functions (knife, screwdriver, reamer, and can opener) Swiss Army knives have expanded to include 34 on the new CyberTool, 13 of them screwdrivers—presumably suitable for an arsenal of firearms.

20 Life jackets

You don’t have to be conscious to appreciate a Coast Guard-approved Type One life jacket. The flotation device is designed to turn unconscious wearers to a face-up position in the water.

21 Humans

Dolly, the famous cloned sheep, moved us a step away from science fiction and a step closer to scientific reality. Don’t be surprised when you’re asked to specify the sex, features—even the temperament—of your intended offspring; some predict that the technology is just a few decades away.

22 Juice drinks

Snapple holds on to its coveted number-three noncarbonated beverage slot (right behind Coca-Cola and PepsiCo) through innovative campaigns that make unprecedented use of less crowded advertising landscapes such as cable television and radio.

23 Bottled water

Evian commissioned French consultancy Style Marque to design a disposable container that would occupy less space while waiting to be recycled. Style Marque’s solution was to etch spiraling grooves into the plastic so that the container would easily crush to a quarter of its original size.

24 Tickle Me Elmo®

At the suggestion of toy maker Tyco, Ron Druben’s original concept for Tickle Me the Monkey—after a brief incarnation as Tickle Me Taz—emerged as Tickle Me Elmo. The idea for the most popular toy of 1996 was conceived while Druben watched two children engage in a tickle battle. The doll was designed bring such abandon glee to a wider audience.

25 Books

Designer Chip Kidd, regarded as one of the world’s foremost book jacket designers, is to the novel what Saul Bass was to motion pictures. Random House recently published Kidd’s first novel, *Cheese Monkeys*, proving to a wider audience that imagery and words are two sides of the same coin.

26 Laundry detergent

While promises of brighter brights, softer fabrics, and fresher aromas no longer captivate buyers, convenience does—liquid detergents in easy-to-handle, drip-free packaging are winning the battle against the more cumbersome cardboard box.

27 Potato chips

The first potato chips were in essence reprisal—frustrated when a diner complained that his fried potatoes were not crispy enough, George Crum sliced an order absurdly thin and fried it to a brittle brown. The “ruined” chips were an immediate hit.

In contrast, the exacting measures by which Pringles® turns potato flakes into identical saddle shapes guarantees perfect stacks, consistent color, and a satisfying crunch every time.

28 Hair

Your hairstyle and hair color say as much about you as does your dress. Consider “raven-haired beauties,” “fiery redheads,” and “blonde bombshells.” As a rule, color as content lacks substance, but sometimes it really is all about the package.

29 Toothbrushes

Today's list of toothbrush design luminaries reads like the latest issue of *Graphis*: Philippe Stark for Fluocaril, Lunar Design for Oral-B Cross Action, Human Factors Industrial Design for Mentadent Oral Care, and Smart Design for Reach UltraClean.

30 Drugs

"Pharmaceutical Companies Quietly Put the Design Back in Designer Drugs," reads the headline of a May 1998 article in *I.D.* magazine. Indeed. Nolvadex,⁶ a medication used to treat breast cancer, is stamped with a cameo; anti-anxiety med Ativan[®] is shaped like the letter A; paradoxically, the dark brown M&M-shaped Pyridium[®] is a urinary tract analgesic.

31 Condoms

Durex designed its Avanti[™] polyurethane prophylactic for comfort and style. Responding to men's and women's criticisms of latex, Durex commissioned its own polymer. The result is as strong as latex but 40 percent thinner. Available in strawberry, tangerine, spearmint, and banana.

32 Soup cans

When Campbell's[®] Soup retired its hallmark red and white label in 1999, it donated the last-ever classically packaged can of condensed tomato soup to the Andy Warhol Museum.

33 Prosthesis

Our preoccupation with self-improvement has led to more than rhinoplasties and elliptical trainers. Pacemakers the size of soap bars are so small that they are undetectable under the skin. Cardiac defibrillator implants administer a lifesaving charge when they sense arrhythmic heartbeats. The Sprint-Flex III prosthesis, designed by Van Phillips, propelled runner Aimee Mullins to break the world record in the amputee-class 100 meter. (The fastest able-bodied woman was only 5.28 seconds faster.)

34 Fonts

All-purpose typeface Helvetica was designed by Edouard Hoffmann and Max Miedinger in 1956 and upon its introduction was quickly condemned as brazenly modern—even grotesque. It is now one of the most popular typefaces in the world.

35 Color

Twice each year the Color Association of the United States announces its fashion design color forecasts for the upcoming season. The palettes are inflected as adjectives: "grounded," "peaceful," "reflective," "sensitive," and "luminous" to name few. Which is to say that much effective design is rooted in semiotics and semantics and that your personal feelings toward pinks and periwinkle might be more palatable when served up as "carefree."

36 Bar codes

When grocers led the effort to standardize product coding, the Uniform Product Code (UPC) format designed by George J. Laurer easily beat out the competition—among them the bull's-eye and star burst codes. A remarkable example of functional design, the bar code counts among its virtues ambidexterity (it can be read from the left and from the right) and durability (its function is not impeded by ink smears). Laurer's design was first reproduced in 1974 on packs of Wrigley's gum, one of which is on display at the Smithsonian Institution's National Museum of American History.

37 Eggs

Try as we might, man can't improve on the ultimate package design. The typical chicken egg weighs a mere 2 ounces; the caliper of its shell is a delicate 0.31 millimeters. The light and sturdy design can support on average nearly 10 pounds stipulating that pressure is applied evenly end to end. In some instances the egg's breaking strength has been recorded at more than 20 pounds.

38 Cola

Pepsi[®] adopted its red, white, and blue bottle crown in 1941 in support of the war effort. The round Pepsi logo, made to resemble a bottlecap, was introduced in 1950.

In 1885 when Frank Robinson first penned the logo that would become the best-known trademark in the world, he changed the Ks in coke and kola to Cs because he thought the composition Coca-Cola more beautiful. The distinctive shape of the Coca-Cola[®] bottle designed by Alexander Samuelson in 1916 was intended to be emblematic of the kola nut or coca leaf. It was instead borne of a misunderstanding between the designer and his researcher, who indicated to Samuelson the shape of the cacao pod, an ingredient belonging to chocolate but not to Coke.

Modern body-conscious consumers might be surprised to learn that both Pepsi and Coke[®] were originally promoted as healthful drinks. But as consumers grew savvy, such artifice proved ineffective, and in 1958 Pepsi turned fully to a new tactic called the lifestyle campaign with "Be sociable, have a Pepsi." Coca-Cola dabbled in lifestyle campaigns beginning in 1935 with "The pause that brings friends together" 1 but mostly focused its messaging on thirst and satisfaction. (Consider 1942's "That something extra"—a slogan that perhaps referred to trace levels of cocaine 2 present in the drink.) Coke caught up in 1971 when it paired "It's the real thing" with a song called "I'd Like to Teach the World to Sing."

The "Cola Wars" officially commenced in the 1980s with "The Pepsi Challenge." Coke asserted that "Life tastes good" to combat "The joy of Pepsi." McDonald's battled Burger King. Christina faced off against Britney. "It's the real thing" took on "Pepsi-Cola hits the spot," and "Coke is it," "The Pepsi Generation." Civil wars broke out over Michael Jackson (Pepsi) and "new" versus "classic" Coke. In 2000 Coca-Cola generated \$20.5 billion in sales versus PepsiCo's \$20.4 billion. The results were similar in 2001. The well-funded war rages on with advertising and design at the front line.

NOTES

1. Revised from 1920's "The Pause That Refreshes."

2. Because cocaine is naturally present in the coca leaf, small amounts of cocaine were also present in the beverage. Today, Coke is flavored with "spent" coca leaves that have been through a cocaine extraction process. It is worth noting that because this process cannot extract the cocaine alkaloids at a molecular level, the drink still contains trace amounts of the stimulant.

The U.S. Drug Enforcement Agency oversees the importation of coca for Coke and, subsequently, the sale of the extracted cocaine to the drug industry.