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Fast Food NATION

The Dark Side of the All American Meal;

ERIC SCHLOSSER

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introduction

CHEYENNE MOUNTAIN SITS on the eastern slope of Colorado's Front Range, rising steeply from the prairie and overlooking the city of Colorado Springs. From a distance, the mountain appears beautiful and serene, dotted with rocky outcroppings, scrub oak, and ponderosa pine. It looks like the backdrop of an old Hollywood western, just another gorgeous Rocky Mountain vista. And yet Cheyenne Mountain is hardly pristine. One of the nation's most important military installations lies deep within it, housing units of the North American Aerospace Command, the Air Force Space Command, and the U United States Space Command. During the mid-1950s, high-level officials at the Pentagon worried that America's air defenses had become vulnerable to sabotage and attack. Cheyenne Mountain was chosen as the site for a top- secret, underground combat operations center. The mountain was hollowed out, and fifteen buildings, most of them three stories high, were erected amid a maze of tunnels and passageways extending for miles. The four-and-a-half-acre underground complex was designed to survive a direct hit by an atomic bomb. Now officially called the Cheyenne Mountain Air Force Station, the facility is entered through steel blast doors that are three feet thick and weigh twenty-five tons each; they automatically swing shut in less than twenty seconds. The base is closed to the public, and a heavily armed quick response team guards against intruders. Pressurized air within the complex prevents contamination by radioactive fallout and biological weapons. The buildings are mounted on gigantic steel springs to ride out an earthquake or the blast wave of a thermonuclear strike. The hallways and staircases are painted slate gray, the ceilings are low, and there are combination locks on many of the doors. A narrow escape tunnel, entered through a metal hatch, twists and turns its way out of the mountain through solid rock. The place feels like the set of an early James Bond movie, with men in jumpsuits driving little electric vans from one brightly lit cavern to another.

Fifteen hundred people work inside the mountain, maintaining the facility and collecting information from a worldwide network of radars, spy satellites, ground-based sensors, airplanes, and blimps. The Cheyenne Mountain Operations Center tracks every manmade object that enters North American airspace or that orbits the earth. It is the heart of the nation's early warning system. It can detect the firing of a long-range missile, anywhere in the world, before that missile has left the launch pad.

This futuristic military base inside a mountain has the capability to be self-sustaining for at least one month. Its generators can produce enough electricity to power a city the size of Tampa, Florida. Its underground reservoirs hold millions of gallons of water; workers sometimes traverse them in rowboats. The complex has its own underground fitness center, a medical clinic, a dentist's office, a barbershop, a chapel, and a cafeteria. When the men and women stationed at Cheyenne Mountain get tired of the food in the cafeteria, they often send somebody over to the Burger King at Fort Carson, a nearby army base. Or they call Domino's.

Almost every night, a Domino's deliveryman winds his way up the lonely Cheyenne Mountain Road, past the ominous DEADLY FORCE AUTHORIZED signs, past the security checkpoint at the entrance of the base, driving toward the heavily guarded North Portal, tucked behind chain link and barbed wire. Near the spot where the road heads straight into the mountainside, the delivery man drops off his pizzas and collects his tip. And should Armageddon come, should a foreign enemy someday shower the United States with nuclear warheads, laying waste to the whole continent, entombed within Cheyenne Mountain, along with the high-tech marvels, the pale blue jumpsuits, comic books, and Bibles, future archeologists may find other clues to the nature of our civilization — Big King wrappers, hardened crusts of Cheesy Bread, Barbeque Wing bones, and the red, white, and blue of a Domino's pizza box.

what we eat

OVER THE LAST THREE DECADES, fast food has infiltrated every nook and cranny of American society. An industry that began with a handful of modest hot dog and hamburger stands in southern California has spread to every corner of the nation, selling a broad range of foods wherever paying customers may be found. Fast food is now served at restaurants and drive-through, at stadiums, airports, zoos, high schools, elementary s c h o o l s , and universities, on cruise ships, trains, and airplanes, at K-Marts, Wal-Mart works, gas stations, and even at hospital cafeterias. In 1970, Americans spent about $6 billion on fast food; in 2001, they spent more than $110 billion. Americans now spend more money on fast food than on higher education, personal computers, computer software, or new cars. They spend more on fast food than on movies, books, magazines, newspapers, videos, and recorded music — combined.

Pull open the glass door, feel the rush of cool air, walk in, get on line, study the backlit color photographs above the counter, place your order, hand over a few dollars, watch teenagers in uniforms pushing various buttons, and moments later take hold of a plastic tray full of food wrapped in colored paper and cardboard. The whole experience of buying fast food has become so routine, so thoroughly unexceptional and mundane, that it is now taken for granted, like brushing your teeth or stopping for a red light. It has become a social custom as American as a small, rectangular, hand-held, frozen, and reheated apple pie.

This is a book about fast food, the values it embodies, and the world it has made. Fast food has proven to be a revolutionary force in American life; I am interested in it both as a commodity and as a metaphor. What people eat (or don't eat) has always been determined by a complex interplay of social, economic, and technological forces. The early Roman Republic was fed by its citizen-farmers; the Roman Empire, by its slaves. A nation's diet can be more revealing than its art or literature. On any given day in the United States about one-quarter of the adult population visits a fast food restaurant. During a relatively brief period of time, the fast food industry has helped to transform not only the American diet, but also our landscape, economy, workforce, and popular culture. Fast food and its consequences have become inescapable, regardless of whether you eat it twice a day, try to avoid it, or have never taken a single bite.

The extraordinary growth of the fast food industry has been driven by fundamental changes in American society. Adjusted for inflation, the hourly wage of the average U.S. worker peaked in 1973 and then steadily declined for the next twenty-five years. During that period, women entered the workforce in record numbers, often motivated less by a feminist perspective than by a need to pay the bills. In 1975, about one-third of American mothers with young children worked outside the home; today almost two-thirds of such mothers are employed. As the sociologists Cameron Lynne Macdonald and Carmen Sirianni have noted, the entry of so many women into the workforce has greatly increased demand for the types of services that housewives traditionally perform: cooking, cleaning, and child care. A generation ago, three-quarters of the money used to buy food in the United States was spent to prepare meals at home. Today about half of the money used to buy food is spent at restaurants —mainly at fast food restaurants.

The McDonald's Corporation has become a powerful symbol of America's service economy, which is now responsible for 90 percent of the country's new jobs. In 1968, McDonald's operated about one thousand restaurants. Today it has about thirty thousand restaurants worldwide and opens almost two thousand new ones each year. An estimated one out of every eight workers in the United States has at some point been employed by McDonald's. The company annually hires about one million people, more than any other American organization, public or private. McDonald's is the nation's largest purchaser of beef, pork, and potatoes —and the second largest purchaser of chicken. The McDonald's Corporation is the largest owner of retail property in the world. Indeed, the company earns the majority of its profits not from selling food but from collecting rent. McDonald's spends more money on advertising and marketing than any other brand. As a result it has replaced Coca-Cola as the world's most famous brand. McDonald's operates more playgrounds than any other private entity in the United States. It is one of the nation's largest distributors of toys. A survey of American schoolchildren found that 96 percent could identify Ronald McDonald. The only fictional character with a higher degree of recognition was Santa Claus. The impact of McDonald's on the way we live today is hard to overstate.

The Golden Arches are now more widely recognized than the Christian cross.

In the early 1970s, the farm activist Jim Hightower warned of "the McDonaldization of America." He viewed the emerging fast food industry as a threat to independent businesses, as a step toward a food economy dominated by giant corporations, and as a homogenizing influence on American life. In Eat Your Heart Out (1975), he argued that "bigger is not better." Much of what Hightower feared has come to pass. The centralized purchasing decisions of the large restaurant chains and their demand for standardized products have given a handful of corporations an unprecedented degree of power over the nation's food supply. Moreover, the tremendous success of the fast food industry has encouraged other industries to adopt similar business methods. The basic thinking behind fast food has become the operating system of today's retail economy, wiping out small businesses, obliterating regional differences, and spreading identical stores throughout the country like a self-replicating code.

America's main streets and malls now boast the same Pizza Huts and Taco Bells, Gaps and Banana Republics, Starbucks and Jiffy-Lubes, Foot Lockers, Snip N' Clips, Sunglass Huts, and Hobbytown USAs. Almost every facet of American life has now been franchised or chained. From the maternity ward at a Columbia/HCA hospital to an embalming room owned by Service Corporation International — "the world's largest provider of death care services," based in Houston, Texas, which since 1968 has grown to include 3,823 funeral homes, 523 cemeteries, and 198 crematoriums, and which today handles the final remains of one out of every nine Americans — a person can now go from the cradle to the grave without spending a nickel at an independently owned business.

The key to a successful franchise, according to many texts on the subject, can be expressed in one word: "uniformity." Franchises and chain stores strive to offer exactly the same product or service at numerous locations. Customers are drawn to familiar brands by an instinct to avoid the unknown. A brand offers a feeling of reassurance when its products are always and everywhere the same. "We have found out... that we cannot trust some people who are nonconformists," declared Ray Kroc, one of the founders of McDonald's, angered by some of his franchisees. "We will make conformists out of them in a hurry... The organization cannot trust the individual; the individual must trust the organization."

One of the ironies of America's fast food industry is that a business so dedicated to conformity was founded by iconoclasts and self-made men, by entrepreneurs willing to defy conventional opinion. Few of the people who built fast food empires ever attended college, let alone business school. They worked hard, took risks, and followed their own paths. In many respects, the fast food industry embodies the best and the worst of American capitalism at the start of the twenty-first century — its constant stream of new products and innovations, its widening gulf between rich and poor. The industrialization of the restaurant kitchen has enabled the fast food chains to rely upon a low-paid and unskilled workforce. While a handful of workers manage to rise up the corporate ladder, the vast majority lack full-time employment, receive no benefits, learn new skills, exercise little control over their workplace, quit after a few months, and float from job to job. The restaurant industry is now America's largest private employer, and it pays some of the lowest wages. During the economic boom of the 1990s, when many American workers enjoyed their first pay raises in a generation, the real value of wages in the restaurant industry continued to fall. The roughly 3.5 million fast food workers are by far the largest group of minimum wage earners in the United States. The only Americans who consistently earn a lower hourly wage are migrant farm workers.

A hamburger and French fries became the quintessential American meal in the 1950s, thanks to the promotional efforts of the fast food chains. The typical American now consumes approximately three hamburgers and four orders of French fries every week. But the steady barrage of fast food ads, full of thick juicy burgers and long golden fries, rarely mentions where these foods come from nowadays or what ingredients they contain. The birth of the fast food industry coincided with Eisenhower-era glorifications of technology, with optimistic slogans like "Better Living through Chemistry" and "Our Friend the Atom." The sort of technological wizardry that Walt Disney promoted on television and at Disneyland eventually reached its fulfillment in the kitchens of fast food restaurants. Indeed, the corporate culture of McDonald's seems inextricably linked to that of the Disney empire, sharing a reverence for sleek machinery, electronics, and automation. The leading fast food chains still embrace a boundless faith in science — and as a result have changed not just what Americans eat, but also how their food is made.

The current methods for preparing fast food are less likely to be found in cookbooks than in trade journals such as Food Technologist and Food Engineering. Aside from the salad greens and tomatoes, most fast food is delivered to the restaurant already frozen, canned, dehydrated, or freeze-dried. A fast food kitchen is merely the final stage in a vast and highly complex system of mass production. Foods that may look familiar have in fact been completely reformulated. What we eat has changed more in the last forty years than in the previous forty thousand. Like Cheyenne Mountain, today's fast food conceals remarkable technological advances behind an ordinary-looking façade. Much of the taste and aroma of American fast food, for example, is now manufactured at a series of large chemical plants off the New Jersey Turnpike.

In the fast food restaurants of Colorado Springs, behind the counters, amid the plastic seats, in the changing landscape outside the window, you can see all the virtues and destructiveness of our fast food nation. I chose Colorado Springs as a focal point for this book because the changes that have recently swept through the city are emblematic of those that fast food — and the fast food mentality — have encouraged throughout the United States. Countless other suburban communities, in every part of the country, could have been used to illustrate the same points. The extraordinary growth of Colorado Springs neatly parallels that of the fast food industry: during the last few decades, the city's population has more than doubled. Subdivisions, shopping malls, and chain restaurants are appearing in the foothills of Cheyenne Mountain and the plains rolling to the east. The Rocky Mountain region as a whole has the fastest-growing economy in the United States, mixing high- tech and service industries in a way that may define America's workforce for years to come. And new restaurants are opening there at a faster pace than anywhere else in the nation.

Fast food is now so commonplace that it has acquired an air of inevitability, as though it were somehow unavoidable, a fact of modern life. And yet the dominance of the fast food giants was no more preordained than the march of colonial split-levels, golf courses, and man- made lakes across the deserts of the American West. The political philosophy that now prevails in so much of the West — with its demand for lower taxes, smaller government, an unbridled free market — stands in total contradiction to the region's true economic underpinnings. No other region of the United States has been so dependent on government subsidies for so long, from the nineteenth-century construction of its railroads to the twentieth-century financing of its military bases and dams. One historian has described the federal government's 1950s highway-building binge as a case study in "interstate socialism" — a phrase that aptly describes how the West was really won. The fast food industry took root alongside that interstate highway system, as a new form of restaurant sprang up beside the new off-ramps. Moreover, the extraordinary growth of this industry over the past quarter-century did not occur in a political vacuum. It took place during a period when the inflation-adjusted value of the minimum wage declined by about 40 percent, when sophisticated mass marketing techniques were for the first time directed at small children, and when federal agencies created to protect workers and consumers too often behaved like branch offices of the companies that were supposed to be regulated. Ever since the administration of President Richard Nixon, the fast food industry has worked closely with its allies in Congress and the white House to oppose new worker safety, food safety, and minimum wage laws.

While publicly espousing support for the free market, the fast food chains have quietly pursued and greatly benefited from a wide variety of government subsidies. Far from being inevitable, America's fast food industry in its present form is the logical outcome of certain political and economic choices.

In the potato fields and processing plants of Idaho, in the ranch-lands east of Colorado Springs, in the feedlots and slaughterhouses of the High Plains, you can see the effects of fast food on the nation's rural life, its environment, its workers, and its health. The fast food chains now stand atop a huge food-industrial complex that has gained control of American agriculture. During the 1980s, large multinationals — such as Cargill, ConAgra, and IBP — were allowed to dominate one commodity market after another. Farmers and cattle ranchers are losing their independence, essentially becoming hired hands for the agribusiness giants or being forced off the land. Family farms are now being replaced by gigantic corporate farms with absentee owners. Rural communities are losing their middle class and becoming socially stratified, divided between a small, wealthy elite and large numbers of the working poor. Small towns that seemingly belong in a Norman Rockwell painting are being turned into rural ghettos. The hardy, independent farmers whom Thomas Jefferson considered the bedrock of American democracy are a truly vanishing breed. The United States now has more prison inmates than full-time farmers.

The fast food chains' vast purchasing power and their demand for a uniform product have encouraged fundamental changes in how cattle are raised, slaughtered, and processed into ground beef. These changes have made meatpacking —once a highly skilled, highly paid occupation —into the most dangerous job in the United States, performed by armies of poor, transient immigrants whose injuries often go unrecorded and uncompensated. And the same meat industry practices that endanger these workers have facilitated the introduction of deadly pathogens, such as E. coli 0157:H7, into America's hamburger meat, a food aggressively marketed to children. Again and again, efforts to prevent the sale of tainted ground beef have been thwarted by meat industry lobbyists and their allies in Congress. The federal government has the legal authority to recall a defective toaster oven or stuffed animal —but still lacks the power to recall tons of contaminated, potentially lethal meat.

I do not mean to suggest that fast food is solely responsible for every social problem now haunting the United States. In some cases (such as the malling and sprawling of the West) the fast food industry has been a catalyst and a symptom of larger economic trends. In other cases (such as the rise of franchising and the spread of obesity) fast food has played a more central role. By tracing the diverse influences of fast food I hope to shed light not only on the workings of an important industry, but also on a distinctively American way of viewing the world.

Elitists have always looked down at fast food, criticizing how it tastes and regarding it as another tacky manifestation of American popular culture. The aesthetics of fast food are of much less concern to me than its impact upon the lives of ordinary Americans, both as workers and consumers. Most of all, I am concerned about its impact on the nation's children. Fast food is heavily marketed to children and prepared by people who are barely older than children. This is an industry that both feeds and feeds off the young. During the two years spent researching this book, I ate an enormous amount of fast food. Most of it tasted pretty good. That is one of the main reasons people buy fast food; it has been carefully designed to taste good. It's also inexpensive and convenient. But the value meals, two-for-one deals, and free refills of soda
give a distorted sense of how much fast food actually costs. The real price never appears on the menu.

The sociologist George Ritzer has attacked the fast food industry for celebrating a narrow measure of efficiency over every other human value, calling the triumph of McDonald's "the irrationality of rationality."

Others consider the fast food industry proof of the nation's great economic vitality, a beloved American institution that appeals overseas to millions who admire our way of life. Indeed, the values, the culture, and the industrial arrangements of our fast food nation are now being exported to the rest of the world. Fast food has joined
Hollywood movies, blue jeans, and pop music as one of America's most prominent cultural exports. U nlike other commodities, however, fast food isn't viewed, read, played, or worn. It enters the body and becomes part of the consumer. No other industry offers, both literally and figuratively, so much insight into the nature of mass consumption.

Hundreds of millions of people buy fast food every day without giving it much thought, unaware of the subtle and not so subtle ramifications of their purchases. They rarely consider where this food came from, how it was made, what it is doing to the community around them. They just grab their tray off the counter, find a table, take a seat, unwrap the paper, and dig in. The whole experience is transitory and soon forgotten. I've written this book out of a belief that people should know what lies behind the shiny, happy surface of every fast food transaction. They should know what really lurks between those sesame-seed buns. As the old saying goes: You are what you eat.

I/the american way

Image MISSING

1 / the founding fathers

CARL N. KARCHER is one of the fast food industry's pioneers. His career extends from the industry's modest origins to its current hamburger hegemony. His life seems at once to be a tale by Horatio Alger, a fulfillment of the American dream, and a warning about unintended consequences. It is a fast food parable about how the industry started and where it can lead. At the heart of the story is southern California, whose cities became prototypes for the rest of the nation, whose love of the automobile changed what America looks like and what Americans eat.

Carl was born in 1917 on a farm near Upper Sandusky, Ohio. His father was a sharecropper who moved the family to new land every few years. The Karchers were German-American, industrious, and devoutly Catholic. Carl had six brothers and a sister. "The harder you work," their father always told them, "the luckier you become." Carl dropped out of school after the eighth grade and worked twelve to fourteen hours a day on the farm, harvesting with a team of horses, baling hay, milking and feeding the cows. In 1937, Ben Karcher, one of Carl's uncles, offered him a job in Anaheim, California. After thinking long and hard and consulting with his parents, Carl decided to go west. He was twenty years old and six-foot-four, a big strong farm boy. He had never set foot outside of northern Ohio. The decision to leave home felt momentous, and the drive to California took a week. When he arrived in Anaheim — and saw the palm trees and orange groves, and smelled the citrus in the air — Carl said to himself, "This is heaven."

Anaheim was a small town in those days, surrounded by ranches and farms. It was located in the heart of southern California's citrus belt, an area that produced almost all of the state's oranges, lemons, and tangerines. Orange County and neighboring Los Angeles County were the leading agricultural counties in the United States, growing fruits, nuts, vegetables, and flowers on land that only a generation earlier had been a desert covered in sagebrush and cactus. Massive irrigation projects, built with public money to improve private land, brought water from hundreds of miles away. The Anaheim area alone boasted about 70,000 acres of Valencia oranges, as well as lemon groves and walnut groves. Small ranches and dairy farms dotted the land, and sunflowers lined the back roads. Anaheim had been settled in the late nineteenth century by German immigrants hoping to create a local wine industry and by a group of Polish expatriates trying to establish a back-to-the- land artistic community. The wineries flourished for three decades; the art colony collapsed within a few months. After World War I, the heavily German character of Anaheim gave way to the influence of newer arrivals from the Midwest, who tended to be Protestant and conservative and evangelical about their faith. Reverend Leon L. Myers — pastor of the Anaheim Christian Church and founder of the local Men's Bible Club — turned the Ku Klux Klan into one of the most powerful organizations in town. During the early 1920s, the Klan ran Anaheim's leading daily newspaper, controlled the city government for a year, and posted signs on the outskirts of the city greeting newcomers with the acronym "KIGY" (Klansmen I Greet You).

Carl's uncle Ben owned Karcher's Feed and Seed Store, right in the middle of downtown Anaheim. Carl worked there seventy-six hours a week, selling goods to local farmers for their chickens, cattle, and hogs. During Sunday services at St. Boniface Catholic Church, Carl spotted an attractive young woman named Margaret Heinz sitting in a nearby pew. He later asked her out for ice cream, and the two began dating. Carl became a frequent visitor to the Heinz farm on North Palm Street. It had ten acres of orange trees and a Spanish-style house where Margaret, her parents, her seven brothers, and her seven sisters lived. The place seemed magical. In the social hierarchy of California's farmers, orange growers stood at the very top; their homes were set amid fragrant evergreen trees that produced a lucrative income. As a young boy in Ohio, Carl had been thrilled on Christmas mornings to receive a single orange as a gift from Santa. Now oranges seemed to be everywhere.

Margaret worked as a secretary at a law firm downtown. From her office window on the fourth floor, she could watch Carl grinding feed outside his uncle's store. After briefly returning to Ohio, Carl went to work for the Armstrong Bakery in Los Angeles. The job soon paid $24 a week, $6 more than he'd earned at the feed store — and enough to start a family. Carl and Margaret were married in 1939 and had their first child within a year.

Carl drove a truck for the bakery, delivering bread to restaurants and markets in west L.A. He was amazed by the number of hot dog stands that were opening and by the number of buns they went through every week. When Carl heard that a hot dog cart was for sale — on Florence Avenue across from the Goodyear factory — he decided to buy it. Margaret strongly opposed the idea, wondering where he'd find the money. He borrowed $311 from the Bank of America, using his car as collateral for the loan, and persuaded his wife to give him $15 in cash from her purse. "I'm in business for myself now," Carl thought, after buying the cart, "I'm on my way." He kept his job at the bakery and hired two young men to work the cart during the hours he was delivering bread. They sold hot dogs, chili dogs, and tamales for a dime each, soda for a nickel. Five months after Carl bought the cart, the United States entered World War II, and the Goodyear plant became very busy. Soon he had enough money to buy a second hot dog cart, which Margaret often ran by herself, selling food and counting change while their daughter slept nearby in the car.

Southern California had recently given birth to an entirely new lifestyle — and a new way of eating. Both revolved around cars. The cities back East had been built in the railway era, with central business districts linked to outlying suburbs by commuter train and trolley. But the tremendous growth of Los Angeles occurred at a time when automobiles were finally affordable. Between 1920 and 1940, the population of southern California nearly tripled, as about 2 million people arrived from across the United States. While cities in the East expanded through immigration and became more diverse, Los Angeles became more homogenous and white. The city was inundated with middle-class arrivals from the Midwest, especially in the years leading up to the Great Depression. Invalids, retirees, and small businessmen were drawn to southern California by real estate ads promising a warm climate and a good life. It was the first large-scale migration conducted mainly by car. Los Angeles soon became unlike any other city the world had ever seen, sprawling and horizontal, a thoroughly suburban metropolis of detached homes — a glimpse of the future, molded by the automobile. About 80 percent of the population had been born elsewhere; about half had rolled into town during the previous five years. Restlessness, impermanence, and speed were embedded in the culture that soon emerged there, along with an openness to anything new. Other cities were being transformed by car ownership, but none was so profoundly altered. By 1940, there were about a million cars in Los Angeles, more cars than in forty-one states The automobile offered drivers a feeling of independence and control. Daily travel was freed from the hassles of rail schedules, the needs of other passengers, and the location of trolley stops. More importantly, driving seemed to cost much less than using public transport — an illusion created by the fact that the price of a new car did not include the price of building new roads. Lobbyists from the oil, tire, and automobile industries, among others, had persuaded state and federal agencies to assume that fundamental expense. Had the big auto companies been required to pay for the roads — in the same way that trolley companies had to lay and maintain track — the landscape of the American West would look quite different today.

The automobile industry, however, was not content simply to reap the benefits of government-subsidized road construction. It was determined to wipe out railway competition by whatever means necessary. In the late 1920s, General Motors secretly began to purchase trolley systems throughout the United States, using a number of front corporations. Trolley systems in Tulsa, Oklahoma, and Montgomery, Alabama, in Cedar Rapids, Iowa, and El Paso, Texas, in Baltimore, Chicago, New York City, and Los Angeles — more than one hundred trolley systems in all — were purchased by GM and then completely dismantled, their tracks ripped up, their overhead wires torn down. The trolley companies were turned into bus lines, and the new buses were manufactured by GM.

General Motors eventually persuaded other companies that benefited from road building to help pay for the costly takeover of America's trolleys. In 1947, GM and a number of its allies in the scheme were indicted on federal antitrust charges. Two years later, the workings of the conspiracy, and its underlying intentions, were exposed during a trial in Chicago. GM, Mack Truck, Firestone, and Standard Oil of California were all found guilty on one of the two counts by the federal jury. The investigative journalist Jonathan Kwitny later argued that the case was "a fine example of what can happen when important matters of public policy are abandoned by government to the

self-interest of corporations." Judge William J. Campbell was not so outraged. As punishment, he ordered GM and the other companies to pay a fine of
$5,000 each. The executives who had secretly plotted and carried out the destruction of America's light rail network were fined $1 each. And the postwar reign of the automobile proceeded without much further challenge.

The nation's car culture reached its height in southern California, inspiring innovations such as the world's first motel and the first drive-in bank. A new form of eating place emerged. "People with cars are so lazy they don't want to get out of them to eat!" said Jesse G. Kirby, the founder of an early drive-in restaurant chain. Kirby's first "Pig Stand" was in Texas, but the chain soon thrived in Los Angeles, alongside countless other food stands offering "curb service." In the rest of the United States, drive-ins were usually a seasonal phenomenon, closing at the end of every summer. In southern California, it felt like summer all year long, the drive-ins never closed, and a whole new industry was born.

The southern California drive-in restaurants of the early 1940s tended to be gaudy and round, topped with pylons, towers, and flashing signs. They were "circular meccas of neon," in the words of drive-in historian Michael Witzel, designed to be easily spotted from the road. The triumph of the automobile encouraged not only a geographic separation between buildings, but also a manmade landscape that was loud and bold. Architecture could no longer afford to be subtle; it had to catch the eye of motorists traveling at high speed. The new drive-ins competed for attention, using all kinds of visual lures, decorating their buildings in bright colors and dressing their waitresses in various costumes. Known as "carhops," the waitresses – who carried trays of food to patrons in parked cars — often wore short skirts and dressed up like cowgirls, majorettes, and Scottish lasses in kilts. They were likely to be attractive, often received no hourly wages, and earned their money through tips and a small commission on every item they sold. The carhops had a strong economic incentive to be friendly to their customers, and drive-in restaurants quickly became popular hangouts for teenage boys. The drive-ins fit perfectly with the youth culture of Los Angeles. They were something genuinely new and different, they offered a combination of girls and cars and late-night food, and before long they beckoned from intersections all over town.

speedee service

BY THE END OF 1944, Carl Karcher owned four hot dog carts in Los Angeles. In addition to running the carts, he still worked full-time for the Armstrong Bakery. When a restaurant across the street from the Heinz farm went on sale, Carl decided to buy it. He quit the bakery, bought the restaurant, fixed it up, and spent a few weeks learning how to cook. On January 16, 1945, his twenty-eighth birthday, Carl's Drive-In Barbeque opened its doors. The restaurant was small, rectangular, and unexceptional, with red tiles on the roof. Its only hint of flamboyance was a five-pointed star atop the neon sign in the parking lot. During business hours, Carl did the cooking, Margaret worked behind the cash register, and carhops served most of the food. After closing time, Carl stayed late into the night, cleaning the bathrooms and mopping the floors. Once a week, he prepared the "special sauce" for his hamburgers, making it in huge kettles on the back porch of his house, stirring it with a stick and then pouring it into one-gallon jugs.

After World War II, business soared at Carl's Drive-In Barbeque, along with the economy of southern California. The oil business and the film business had thrived in Los Angeles during the 1920s and 1930s. But it was World War II that transformed southern California into the most important economic region in the West. The war's effect on the state, in the words of historian Carey McWilliams, was a "fabulous boom." Between 1940 and 1945, the federal government spent nearly $20 billion in California, mainly in and around Los Angeles, building airplane factories and steel mills, military bases and port facilities. During those six years, federal spending was responsible for nearly half of the personal income in southern California. By the end of World War II, Los Angeles was the second-largest manufacturing center in America, with an industrial output surpassed only by that of Detroit. While Hollywood garnered most of the headlines, defense spending remained the focus of the local economy for the next two decades, providing about one-third of its jobs.

The new prosperity enabled Carl and Margaret to buy a house five blocks away from their restaurant. They added more rooms as the family grew to include twelve children: nine girls and three boys. In the early 1950s Anaheim began to feel much less rural and remote. Walt Disney bought 160 acres of orange groves just a few miles from Carl's Drive-in Barbeque, chopped down the trees, and started to build Disneyland. In the neighboring town of Garden Grove, the Reverend Robert Schuller founded the nation's first Drive-in Church, preaching on Sunday mornings at a drive-in movie theater, spreading the Gospel through the little speakers at each parking space, attracting large crowds with the slogan "Worship as you are… in the family car." The city of Anaheim started to recruit defense contractors, eventually persuading Northrop, Boeing, and North American Aviation to build factories there. Anaheim soon became the fastest-growing city in the nation's fastest- growing state. Carl's Drive-In Barbeque thrived, and Carl thought its future was secure. And then he heard about a restaurant in the "Inland Empire," sixty miles east of Los Angeles, that was selling high-quality hamburgers for 15 cents each — 20 cents less than what Carl charged. He drove to E Street in San Bernardino and saw the shape of things to come. Dozens of people were standing in line to buy bags of "McDonald's Famous Hamburgers."

Richard and Maurice McDonald had left New Hampshire for southern California at the start of the Depression, hoping to find jobs in Hollywood. They worked as set builders on the Columbia Film Studios back lot, saved their money, and bought a movie theater in Glendale. The theater was not a success. In 1937 they opened a drive-in restaurant in Pasadena, trying to cash in on the new craze, hiring three carhops and selling mainly hot dogs. A few years later they moved to a larger building on E Street in San Bernardino and opened the McDonald Brothers Burger Bar Drive-In. The new restaurant was located near a high school, employed twenty carhops, and promptly made the brothers rich. Richard and "Mac" McDonald bought one of the largest houses in San Bernardino, a hillside mansion with a tennis court and a pool.

By the end of the 1940s the McDonald brothers had grown dissatisfied with the drive-in business. They were tired of constantly looking for new carhops and short-order cooks — who were in great demand — as the old ones left for higher-paying jobs elsewhere. They were tired of replacing the dishes, glassware, and silverware their teenage customers constantly broke or ripped off. And they were tired of their teenage customers. The brothers thought about selling the restaurant. Instead, they tried something new.

The McDonalds fired all their carhops in 1948, closed their restaurant, installed larger grills, and reopened three months later with a radically new method of preparing food. It was designed to increase the speed, lower prices, and raise the volume of sales. The brothers eliminated almost two-thirds of the items on their old menu. They got rid of everything that had to be eaten with a knife, spoon, or fork. The only sandwiches now sold were hamburgers or cheeseburgers. The brothers got rid of their dishes and glassware, replacing them with paper cups, paper bags, and paper plates. They divided the food preparation into separate tasks performed by different workers. To fill a typical order, one person grilled the hamburger; another "dressed" and wrapped it; another prepared the milk shake; another made the fries; and another worked the counter. For the first time, the guiding principles of a factory assembly line were applied to a commercial kitchen. The new division of labor meant that a worker only had to be taught how to perform one task. Skilled and expensive short-order cooks were no longer necessary. All of the burgers were sold with the same condiments: ketchup, onions, mustard, and two pickles. No substitutions were allowed. The McDonald brothers' Speedee Service System revolutionized the restaurant business. An ad of theirs seeking franchisees later spelled out the benefits of the system: "Imagine — No Carhops — No Waitresses — No Dishwashers — No Bus Boys — The McDonald's System is Self-Service!"

Richard McDonald designed a new building for the restaurant, hoping to make it easy to spot from the road. Though untrained as an architect, he came up with a design that was simple, memorable, and archetypal. On two sides of the roof he put golden arches, lit by neon at night that from a distance formed the letter M. The building effortlessly fused advertising with architecture and spawned one of the most famous corporate logos in the world.

The Speedee Service System, however, got off to a rocky start. Customers pulled up to the restaurant and honked their horns, wondering what had happened to the carhops, still expecting to be served. People were not yet accustomed to waiting in line and getting their own food. Within a few weeks, however, the new system gained acceptance, as word spread about the low prices and good hamburgers. The McDonald brothers now aimed for a much broader clientele. They employed only young men, convinced that female workers would attract teenage boys to the restaurant and drive away other customers. Families soon lined up to eat at McDonald's. Company historian John F. Love explained the lasting significance of McDonald's new self-service system: "Working-class families could finally afford to feed their kid's restaurant food."

San Bernardino at the time was an ideal setting for all sorts of cultural experimentation. The town was an odd melting-pot of agriculture and industry located on the periphery of the southern California boom, a place that felt out on the edge. Nicknamed "San Berdoo," it was full of citrus groves, but sat next door to the smokestacks and steel mills of Fontana. San Bernardino had just sixty thousand inhabitants, but millions of people passed through there every year. It was the last stop on Route 66, end of the line for truckers, tourists, and migrants from the East. Its main street was jammed with drive-ins and cheap motels. The same year the McDonald brothers opened their new self-service restaurant, a group of World War II veterans in San Berdoo, alienated by the dullness of civilian life, formed a local motorcycle club, borrowing the nickname of the U.S. Army's Eleventh Airborne Division: "Hell's Angels." The same town that gave the world the golden arches also gave it a biker gang that stood for a totally antithetical set of values. The Hell's Angels flaunted their dirtiness, celebrated disorder, terrified families and small children instead of trying to sell them burgers, took drugs, sold drugs, and injected into American pop culture an anger and a darkness and a fashion statement — T-shirts and torn jeans, black leather jackets and boots, long hair, facial hair, swastikas, silver skull rings and other satanic trinkets, earrings, nose rings, body piercings, and tattoos — that would influence a long line of rebels from Marlon Brando to Marilyn Manson. The Hell's Angels were the anti-McDonald's, the opposite of clean and cheery. They didn't care if you had a nice day, and yet were as deeply American in their own way as any purveyors of Speedee Service. San Bernardino in 1948 supplied the nation with a new yin and yang, new models of conformity and rebellion. "They get angry when they read about how filthy they are," Hunter Thompson later wrote of the Hell's Angels, "but instead of shoplifting some deodorant, they strive to become even filthier."

burgerville usa

AFTER VISITING SAN BERNARDINO and seeing the long lines at McDonald's, Carl Karcher went home to Anaheim and decided to open his own self- service restaurant. Carl instinctively grasped that the new car culture would forever change America. He saw what was coming, and his timing was perfect. The first Carl's Jr. restaurant opened in 1956 — the same year that America got its first shopping mall and that Congress passed the Interstate Highway Act. President Dwight D. Eisenhower had pushed hard for such a bill; during World War II, he'd been enormously impressed by Adolf Hitler's Reichsautobahn, the world's first superhighway system. The Interstate Highway Act brought autobahns to the United States and became the largest public works project in the nation's history, building 46,000 miles of road with more than $130 billion of federal money. The new highways spurred car sales, truck sales, and the construction of new suburban homes. Carl's first self-service restaurant was a success, and he soon opened others near California's new freeway off-ramps. The star atop his drive-in sign became the mascot of his fast food chain. It was a smiling star in little booties, holding a burger and a shake.

Entrepreneurs from all over the country went to San Bernardino, visited the new McDonald's, and built imitations of the restaurant in their hometowns. "Our food was exactly the same as McDonald's," the founder of a rival chain later admitted. "If I had looked at McDonald's and saw someone flipping hamburgers while he was hanging by his feet, I would have copied it." America's fast food chains were not launched by large corporations relying upon focus groups and market research. They were started by door-to-door salesmen, short-order cooks, orphans, and dropouts, by eternal optimists looking for a piece of the next big thing. The start-up costs of a fast food restaurant were low, the profit margins promised to be high, and a wide assortment of ambitious people were soon buying grills and putting up signs.

William Rosenberg dropped out of school at the age of fourteen, delivered telegrams for Western Union, drove an ice cream truck, worked as a door-to-door salesman, sold sandwiches and coffee to factory workers in Boston, and then opened a small doughnut shop in 1948, later calling it Dunkin' Donuts. Glen W. Bell, Jr., was a World War II veteran, a resident of San Bernardino who ate at the new McDonald's and decided to copy it, using the assembly-line system to make Mexican food and founding a restaurant chain later known as Taco Bell. Keith G. Cramer, the owner of Keith's Drive-In Restaurant in Daytona Beach, Florida, heard about the McDonald brothers' new restaurant, flew to southern California, ate at McDonald's, returned to Florida, and with his father-in-law, Matthew Burns, opened the first Insta-Burger-King in 1953. Dave Thomas started working in a restaurant at the age of twelve, left his adoptive father, took a room at the YMCA, dropped out of school at fifteen, served as a bus-boy and a cook, and eventually opened his own place in Columbus, Ohio, calling it Wendy's Old-Fashioned Hamburgers restaurant. Thomas S. Monaghan spent much of his childhood in a Catholic orphanage and a series of foster homes, worked as a soda jerk, barely graduated from high school, joined the Marines, and bought a pizzeria in Ypsilanti, Michigan, with his brother, securing the deal through a down payment of $75. Eight months later Monaghan's brother decided to quit and accepted a used Volkswagen Beetle for his share of a business later known as Domino's.

The story of Harland Sanders is perhaps the most remarkable. Sanders left school at the age of twelve, worked as a farm hand, a mule tender, and a railway fireman. At various times he worked as a lawyer without having a law degree, delivered babies as a part-time obstetrician without having a medical degree, sold insurance door to door, sold Michelin tires, and operated a gas station in Corbin, Kentucky. He served home-cooked food at a small dining-room table in the back, later opened a popular restaurant and motel, sold them to pay off debts, and at the age of sixty-five became a traveling salesman once again, offering restaurant owners the "secret recipe" for his fried chicken. The first Kentucky Fried Chicken restaurant opened in 1952, near Salt Lake City, Utah. Lacking money to promote the new chain, Sanders dressed up like a Kentucky colonel, sporting a white suit and a black string tie. By the early 1960s, Kentucky Fried Chicken was the largest restaurant chain in the United States, and Colonel Sanders was a household name. In his autobiography, Life As I Have Known It Has Been "Finger-lickin' Good," Sanders described his ups and downs, his decision at the age of seventy-four to be rebaptized and born again, his lifelong struggle to stop cursing. Despite his best efforts and a devout faith in Christ, Harland Sanders admitted that it was still awfully hard "not to call a no-good, lazy, incompetent, dishonest s.o.b. by anything else but his rightful name."

For every fast food idea that swept the nation, there were countless others that flourished briefly —or never had a prayer. There were chains with homey names, like Sandy's, Carrol's, Henry's, Winky's, and Mr. Fifteen's. There were chains with futuristic names, like the Satellite Hamburger System and Kelly's Jet System. Most of all, there were chains named after their main dish: Burger Chefs, Burger Queens, Burgerville USAs, Yumy Burgers, Twitty Burgers, Whata-burgers, Dundee Burgers, Biff-Burgers, O.K. Big Burgers, and Burger Boy Food-O-Ramas.

Many of the new restaurants advertised an array of technological wonders. Carhops were rendered obsolete by various remote-control ordering systems, like the Fone-A-Chef, the Teletray, and the Electro-Hop. The Motormat was an elaborate rail system that transported food and beverages from the kitchen to parked cars. At the Biff-Burger chain, Biff-Burgers were "roto-broiled" beneath glowing quartz tubes that worked just like a space heater. Insta-Burger-King restaurants featured a pair of "Miracle Insta Machines," one to make milk shakes, the other to cook burgers. "Both machines have been thoroughly perfected," the company assured prospective franchisees, "are of foolproof design — can be easily operated even by a moron." The Insta-Burger Stove was an elaborate contraption. Twelve hamburger patties entered it in individual wire baskets, circled two electric heating elements, got cooked on both sides, and then slid down a chute into a pan of sauce, while hamburger buns toasted in a nearby slot. This Miracle Insta Machine proved overly complex, frequently malfunctioned, and was eventually abandoned by the Burger King chain.

The fast food wars in southern California — the birthplace of Jack in the Box, as well as McDonald's, Taco Bell, and Carl's Jr. — were especially fierce. One by one, most of the old drive-ins closed, unable to compete against the less expensive, self-service burger joints. But Carl kept at it, opening new restaurants up and down the state, following the new freeways. Four of these freeways — the Riverside, the Santa Ana, the Costa Mesa, and the Orange — soon passed through Anaheim. Although Carl's Jr. was a great success, a few of Carl's other ideas should have remained on the drawing board. Carl's Whistle Stops featured employees dressed as railway workers, "Hobo Burgers," and toy electric trains that took orders to the kitchen. Three were built in 1966 and then converted to Carl's Jr. Restaurants a few years later. A coffee shop chain with a Scottish theme also never found its niche. The waitresses at "Scot's" wore plaid skirts, and the dishes had unfortunate names, such as "The Clansman."

The leading fast food chains spread nationwide; between 1960 and 1973, the number of McDonald's restaurants grew from roughly 250 to 3,000. The Arab oil embargo of 1973 gave the fast food industry a bad scare, as long lines at gas stations led many to believe that America's car culture was endangered. Amid gasoline shortages, the value of McDonald's stock fell. When the crisis passed, fast food stock prices recovered, and McDonald's intensified its efforts to open urban, as well as suburban, restaurants. Wall Street invested heavily in the fast food chains, and corporate managers replaced many of the early pioneers.

What had begun as a series of small, regional businesses became a fast food industry, a major component of the American economy.

progress

IN 1976, THE NEW HEADQUARTERS of Carl Karcher Enterprises, Inc. (CKE) was built on the same land in Anaheim where the Heinz farm had once stood. The opening-night celebration was one of the high points of Carl's life. More than a thousand people gathered for a black-tie party at a tent set up in the parking lot. There was dinner and dancing on a beautiful, moonlit night. Thirty-five years after buying his first hot dog cart, Carl Karcher now controlled one of the largest privately owned fast food chains in the United States. He owned hundreds of restaurants. He considered many notable Americans to be his friends, including Governor Ronald Reagan, former president Richard Nixon, Gene Autry, Art Linkletter, Lawrence Welk, and Pat Boone. Carl's nickname was "Mr. Orange County." He was a benefactor of Catholic charities, a Knight of Malta, a strong supporter of right-to-life causes. He attended private masses at the Vatican with the Pope. And then, despite all the hard work, Carl's luck began to change.

During the 1980s CKE went public, opened Carl's Jr. restaurants in Texas, added higher-priced dinners to the menu, and for the first time began to expand by selling franchises. The new menu items and the restaurants in Texas fared poorly. The value of CKE's stock fell. In 1988, Carl and half a dozen members of his family were accused of insider trading by the Securities and Exchange Commission (SEC). They had sold large amounts of CKE stock right before its price tumbled. Carl vehemently denied the charges and felt humiliated by the publicity surrounding the case. Nevertheless, Carl agreed to a settlement with the SEC — to avoid a long and expensive legal battle, he said — and paid more than half a million dollars in fines.

During the early 1990s, a number of Carl's real estate investments proved unwise. When new subdivisions in Anaheim and the Inland Empire went bankrupt, Carl was saddled with many of their debts. He had allowed real estate developers to use his CKE stock as collateral for their bank loans. He became embroiled in more than two dozen lawsuits. He suddenly owed more than $70 million to various banks. The falling price of CKE stock hampered his ability to repay the loans. In May of 1992, his brother Don — a trusted adviser and the president of

CKE — died. The new president tried to increase sales at Carl's Jr. restaurants by purchasing food of a lower quality and cutting prices. The strategy began to drive customers away.

As the chairman of CKE, Carl searched for ways to save his company and pay off his debts. He proposed selling Mexican food at Carl's Jr. restaurants as part of a joint venture with a chain called Green Burrito. But some executives at CKE opposed the plan, arguing that it would benefit Carl much more than the company. Carl had a financial stake in the deal; upon its acceptance by the board of CKE, he would receive a $6 million personal loan from Green Burrito. Carl was outraged that his motives were being questioned and that his business was being run into the ground. CKE now felt like a much different company than the one he'd founded. The new management team had ended the longtime practice of starting every executive meeting with the prayer of St. Francis of Assisi and the pledge of allegiance to the flag. Carl insisted that the Green Burrito plan would work and demanded that the board of directors vote on it. When the board rejected the plan, Carl tried to oust its members. Instead, they ousted him. On March 1, 1993, CKE's board voted five to two to fire Carl N. Karcher. Only Carl and his son Carl Leo opposed the dismissal. Carl felt deeply betrayed. He had known many of the board members for years; they were old friends; he had made them rich. In a statement released after the firing, Carl described the CKE board as "a bunch of turncoats" and called it "one of the saddest days" of his life. At the age of seventy-six, more than five decades after starting the business, Carl N. Karcher was prevented from entering his own office, and new locks were put on the doors.

The headquarters of CKE is still located on the property where the Heinz family once grew oranges. Today there's no smell of citrus in the air, no orange groves in sight. In a town that once had endless rows of orange and lemon trees, stretching far as the eye could see, there's not an acre of them left, not a single acre devoted to commercial citrus growing. Anaheim's population is now about three hundred thousand, roughly thirty times what it was when Carl first arrived. On the corner where Carl's Drive-In Barbeque once stood, there's a strip mall. Near the CKE headquarters on Harbor Boulevard, there's an Exxon station, a discount mattress store, a Shoe City, a Las Vegas Auto Sales store, and an off-ramp of the Riverside Freeway. The CKE building has a modern, Spanish design, with white columns, red brick arches, and dark plate-glass windows. When I visited recently, it was cool and quiet inside. After passing a life-size wooden statue of St. Francis of Assisi on a stairway landing, I was greeted at the top of the stairs by Carl N. Karcher.

Carl looked like a stylish figure from the big-band era, wearing a brown checked jacket, a white shirt, a brown tie, and jaunty two-tone shoes. He was tall and strong, and seemed in remarkably good shape. The walls of his office were covered with plaques and mementos, with photographs of Carl beside presidents, famous ballplayers, former employees, grandchildren, priests, cardinals, Mikhail Gorbachev, the Pope. Carl proudly removed a framed object from the wall and handed it to me. It was the original receipt for $326, confirming the purchase of his first hot dog cart.

Eight weeks after being locked out of his office in 1993, Carl engineered a takeover of the company. Through a complex series of transactions, a partnership headed by financier William P. Foley II assumed some of Carl's debts, received much of his stock in return, and took control of CKE. Foley became the new chairman of the board. Carl was named chairman emeritus and got his old office back. Almost all of the executives and directors who had opposed him subsequently left the company. The Green Burrito plan was adopted and proved a success. The new management at CKE seemed to have turned the company around, raising the value of its stock. In July of 1997, CKE purchased Hardee's for $327 million, thereby becoming the fourth-largest hamburger chain in the United States, joining McDonald's, Burger King, and Wendy's at the top. And signs bearing the Carl's Jr. smiling little star started going up across the United States.

Carl seemed amazed by his own life story as he told it. He'd been married to Margaret for sixty years. He'd lived in the same Anaheim house for almost fifty years. He had twenty granddaughters and twenty grandsons. For a man of eighty, he had an impressive memory, quickly rattling off names, dates, and addresses from half a century ago. He exuded the genial optimism and good humor of his old friend
Ronald Reagan. "My whole philosophy is — never give up," Carl told me. "The word 'can't' should not exist... Have a great attitude... Watch the pennies and the dollars will take care of themselves... Life is beautiful, life is fantastic, and that is how I feel about every day of my life." Despite CKE's expansion, Carl remained millions of dollars in debt. He'd secured new loans to pay off the old ones. During the worst of his financial troubles, advisers pleaded with him to declare bankruptcy. Carl refused; he'd borrowed more than $8 million

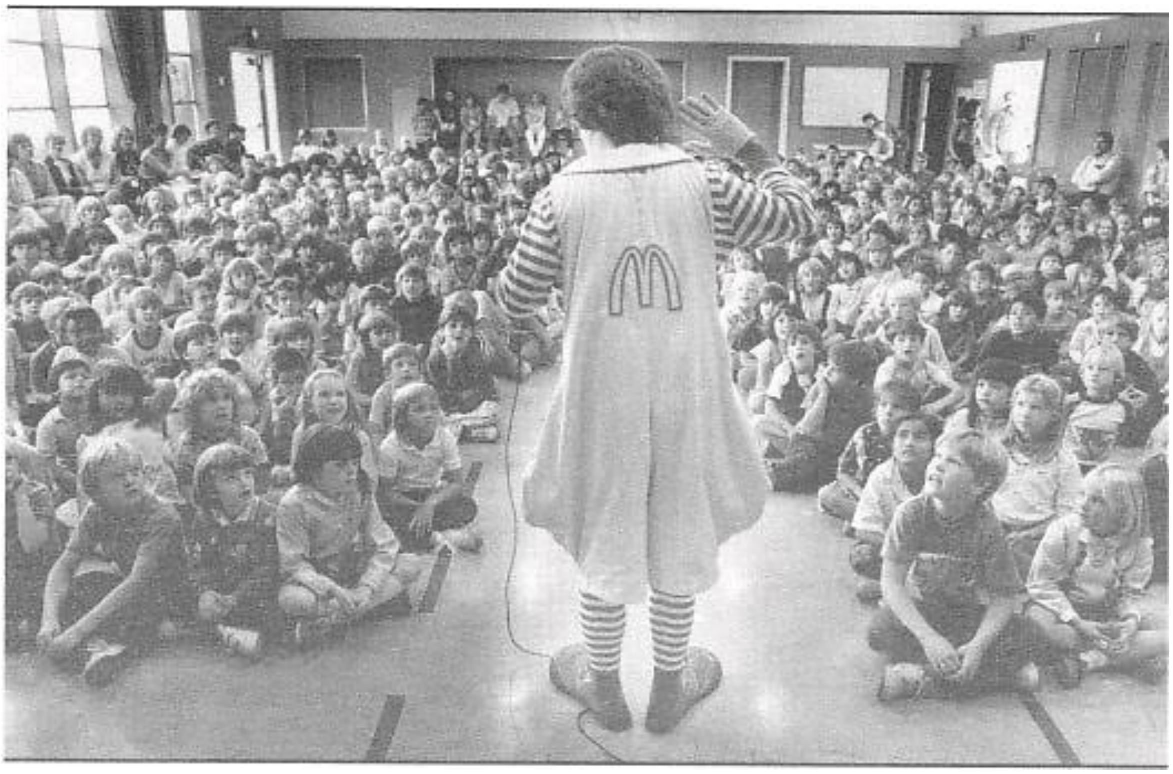
from family members and friends, and he would not walk away from his obligations. Every weekday he was attending Mass at six o'clock in the morning and getting to the office by seven. "My goal in the next two years," he said, "is to pay off all my debts."

I looked out the window and asked how he felt driving through Anaheim today, with its fast food restaurants, subdivisions, and strip malls. "Well, to be frank about it," he said, "I couldn't be happier." Thinking that he'd misunderstood the question, I rephrased it, asking if he ever missed the old Anaheim, the ranches and citrus groves.

"No," he answered. "I believe in Progress."

Carl grew up on a farm without running water or electricity. He'd escaped a hard rural life. The view outside his office window was not disturbing to him, I realized. It was a mark of success.

"When I first met my wife," Carl said, "this road here was gravel and now it's blacktop."



2/ your trusted friends

BEFORE ENTERING the Ray A. Kroc Museum, you have to walk through McStore. Both sit on the ground floor of McDonald's corporate headquarters, located at One McDonald's Plaza in Oak Brook, Illinois. The headquarters building has oval windows and a gray concrete façade — a look that must have seemed space-age when the building opened three decades ago. Now it seems stolid and drab, an architectural relic of the Nixon era. It resembles the American embassy compounds that always used to attract antiwar protesters, student demonstrators, flag burners. The eighty-acre campus of Hamburger University, McDonald's managerial training center, is a short drive from headquarters. Shuttle buses constantly go back and forth between the campus and McDonald's Plaza, ferrying clean-cut young men and women in khakis who've come to study for their "Degree in Hamburgerology." The course lasts two weeks and trains a few thousand managers, executives, and franchisees each year. Students from out of town stay at the Hyatt on the McDonald's campus. Most of the classes are devoted to personnel issues, teaching lessons in teamwork and employee motivation, promoting "a common McDonald's language" and "a common McDonald's culture." Three flagpoles stand in front of McDonald's Plaza, the heart of the hamburger empire. One flies the Stars and Stripes, another flies the Illinois state flag, and the third flies a bright red flag with golden arches.

You can buy bean-bag McBurglar dolls at McStore, telephones shaped like french fries, ties, clocks, key chains, golf bags and duffel bags, jewelry, baby clothes, lunch boxes, mouse pads, leather jackets, postcards, toy trucks, and much more, all of it bearing the stamp of McDonald's. You can buy T-shirts decorated with a new version of the

American flag. The fifty white stars have been replaced by a pair of golden arches.

At the back of McStore, past the footsteps of Ronald McDonald stenciled on the floor, past the shelves of dishes and glassware, a bronze bust of Ray Kroc marks the entrance to his museum. Kroc was the founder of the McDonald's Corporation, and his philosophy of QSC and V— Quality, Service, Cleanliness, and Value — still guide it. The man immortalized in bronze is balding and middle-aged, with smooth cheeks and an intense look in his eyes. A glass display case nearby holds plaques, awards, and letters of praise. "One of the highlights of my sixty- first birthday celebration," President Richard Nixon wrote in 1974, "was when Tricia suggested we needed a 'break' on our drive to Palm Springs, and we turned in at McDonald's. I had heard for years from our girls that the 'Big Mac' was really something special, and while I've often credited Mrs. Nixon with making the best hamburgers in the world, we are both convinced that McDonald's runs a close second... The next time the cook has a night off we will know where to go for fast service, cheerful hospitality — and probably one of the best food buys in America." Other glass cases contain artifacts of Kroc's life, mementos of his long years of struggle and his twilight as a billionaire. The museum is small and dimly lit, displaying each object with reverence. The day I visited, the place was empty and still. It didn't feel like a traditional museum, where objects are coolly numbered, catalogued, and described. It felt more like a shrine

Many of the exhibits at the Ray A. Kroc Museum incorporate neat technological tricks. Dioramas appear and then disappear when certain buttons are pushed. The voices of Kroc's friends and coworkers — one of them identified as a McDonald's "vice president of individuality" — boom from speakers at the appropriate cue. Darkened glass cases are suddenly illuminated from within, revealing their contents. An artwork on the wall, when viewed from the left, displays an image of Ray Kroc. Viewed from the right, it shows the letters QSC and V. The museum does not have a life-size, Audio-Animatronic version of McDonald's founder telling jokes and anecdotes. But one wouldn't be out of place. An interactive exhibit called "Talk to Ray" shows video clips of Kroc appearing on the Phil Donahue Show, being interviewed by Tom Snyder, and chatting with Reverend Robert Schuller at the altar of Orange County's Crystal Cathedral. "Talk to Ray" permits the viewer to ask Kroc as many as thirty-six predetermined questions about various subjects; old videos of Kroc supply the answers.

The exhibit wasn't working properly the day of my visit. Ray wouldn't take my questions, and so I just listened to him repeating the same speeches.

The Disneyesque tone of the museum reflects, among other things, many of the similarities between the McDonald's Corporation and the Walt Disney Company. It also reflects the similar paths of the two men who founded these corporate giants. Ray Kroc and Walt Disney were both from Illinois; they were born a year apart, Disney in 1901, Kroc in 1902; they knew each other as young men, serving together in the same World War I ambulance corps; and they both fled the Midwest and settled in southern California, where they played central roles in the creation of new American industries. The film critic Richard Schickel has described Disney's powerful inner need "to order, control, and keep clean any environment he inhabited." The same could easily be said about Ray Kroc, whose obsession with cleanliness and control became one of the hallmarks of his restaurant chain. Kroc cleaned the holes in his mop wringer with a toothbrush.

Kroc and Disney both dropped out of high school and later added the trappings of formal education to their companies. The training school for Disney's theme-park employees was named Disneyland University. More importantly, the two men shared the same vision of America, the same optimistic faith in technology, the same conservative political views. They were charismatic figures who provided an overall corporate vision and grasped the public mood, relying on others to handle the creative and financial details. Walt Disney neither wrote, nor drew the animated classics that bore his name. Ray Kroc's attempts to add new dishes to McDonald's menu — such as Kolacky, a Bohemian pastry, and the Hulaburger, a sandwich featuring grilled pineapple and cheese — were unsuccessful. Both men, however, knew how to find and motivate the right talent. While Disney was much more famous and achieved success sooner, Kroc may have been more influential. His company inspired more imitators, wielded more power over the American economy — and spawned a mascot even more famous than Mickey Mouse.

Despite all their success as businessmen and entrepreneurs, as cultural figures and advocates for a particular brand of Americanism, perhaps the most significant achievement of these two men lay elsewhere. Walt Disney and Ray Kroc were masterful salesmen. They perfected the art of selling things to children. And their success led many others to aim marketing efforts at kids, turning America's youngest consumers into a demographic group that is now avidly studied, analyzed, and targeted by the world's largest corporations.

walt and ray

RAY KROC TOOK THE McDonald brothers' Speedee Service System and spread it nationwide, creating a fast food empire. Although he founded a company that came to symbolize corporate America, Kroc was never a buttoned-down corporate type. He was a former jazz musician who'd played at speakeasies —and at a bordello, on at least one occasion —during Prohibition. He was a charming, funny, and indefatigable traveling salesman who endured many years of disappointment, a Willy Loman who finally managed to hit it big in his early sixties. Kroc grew up in Oak Park, Illinois, not far from Chicago. His father worked for Western Union. As a high school freshman, Ray Kroc discovered the joys of selling while employed at his uncle's soda fountain. "That was where I learned you could influence people with a smile and enthusiasm," Kroc recalled in his autobiography, Grinding It Out, "and sell them a sundae when what they'd come for was a cup of coffee."

Over the years, Kroc sold coffee beans, sheet music, paper cups, Florida real estate, powdered instant beverages called "Malt-a-Plenty" and "Shake-a-Plenty," a gadget that could dispense whipped cream or shaving lather, square ice cream scoops, and a collapsible table-and-bench combination called "Fold-a-Nook" that retreated into the wall like a Murphy bed. The main problem with square scoops of ice cream, he found, was that they slid off the plate when you tried to eat them. Kroc used the same basic technique to sell all these things: he tailored his pitch to fit the buyer's tastes. Despite one setback after another, he kept at it, always convinced that success was just around the corner. "If you believe in it, and you believe in it hard," Kroc later told audiences, "it's impossible to fail. I don't care what it is —you can get it!"

Ray Kroc was selling milk-shake mixers in 1954 when he first visited the new McDonald's Self-Service Restaurant in San Bernardino. The McDonald brothers were two of his best customers. The Multimixer unit that Kroc sold could make five milk shakes at once. He wondered why the McDonald brothers needed eight of the machines. Kroc had visited a lot of restaurant kitchens, out on the road, demonstrating the Multimixer —and had never seen anything like the Mc-Donald's Speedee Service System. "When I saw it," he later wrote, "I felt like some latter-day Newton who'd just had an Idaho potato caromed off his skull." He looked at the restaurant "through the eyes of a salesman" and envisioned putting a McDonald's at busy intersections all across the land.

Richard and "Mac" McDonald were less ambitious. They were clearing $100,000 a year in profits from the restaurant, a huge sum in those days. They already owned a big house and three Cadillacs. They didn't like to travel. They'd recently refused an offer from the Carnation Milk Company, which thought that opening more McDonald's would increase the sales of milk shakes. Nevertheless, Kroc convinced the brothers to sell him the right to franchise McDonald's nationwide. The two could stay at home, while Kroc traveled the country, making them even richer. A deal was signed. Years later Richard McDonald described his first memory of Kroc, a moment that would soon lead to the birth of the world's biggest restaurant chain: "This little fellow comes in, with a high voice, and says, 'hi.'"

After finalizing the agreement with the McDonald brothers, Kroc sent a letter to Walt Disney. In 1917 the two men had both lied about their ages to join the Red Cross and see battle in Europe. A long time had clearly passed since their last conversation. "Dear Walt," the letter said. "I feel somewhat presumptuous addressing you in this way yet I feel sure you would not want me to address you any other way. My name is Ray A. Kroc... I look over the Company A picture we had taken at Sound Beach, Conn., many times and recall a lot of pleasant memories." After the warm-up came the pitch: "I have very recently taken over the national franchise of the McDonald's system. I would like to inquire if there may be an opportunity for a McDonald's in your Disneyland Development."

Walt Disney sent Kroc a cordial reply and forwarded his proposal to an executive in charge of the theme park's concessions. Disneyland was still under construction, its opening was eagerly awaited by millions of American children, and Kroc may have had high hopes. According to one account, Disney's company asked Kroc to raise the price of McDonald's French fries from ten cents to fifteen cents; Disney would keep the extra nickel as payment for granting the concession; and the story ends with Ray Kroc refusing to gouge his loyal customers. The account seems highly unlikely, a belated effort by someone at McDonald's to put the best spin on a sales pitch that went nowhere. When Disneyland opened in July of 1955 —an event that Ronald Reagan cohosted for ABC— it had food stands run by Welch's, Stouffer's, and Aunt Jemima's, but no McDonald's. Kroc was not yet in their league. His recollection of Walt Disney as a young man, briefly mentioned in Grinding It Out, is not entirely flattering. "He was regarded as a strange duck," Kroc wrote of Disney, "because whenever we had time off and went out on the town to chase girls, he stayed in camp drawing pictures."

Whatever feelings existed between the two men, Walt Disney proved in many respects to be a role model for Ray Kroc. Disney's success had come much more quickly. At the age of twenty-one he'd left the Midwest and opened his own movie studio in Los Angeles. He was famous before turning thirty. In The Magic Kingdom (1997) Steven Watts describes Walt Disney's efforts to apply the techniques of mass production to Hollywood moviemaking. He greatly admired Henry Ford and introduced an assembly line and a rigorous division of labor at the Disney Studio, which was soon depicted as a "fun factory." Instead of drawing entire scenes, artists were given narrowly defined tasks, meticulously sketching and inking Disney characters while supervisors watched them and timed how long it took them to complete each cell. During the 1930s the production system at the studio was organized to function like that of an automobile plant. "Hundreds of young people were being trained and fitted," Disney explained, "into a machine for the manufacture of entertainment."

The working conditions at Disney's factory, however, were not always fun. In 1941 hundreds of Disney animators went on strike, expressing support for the Screen Cartoonists Guild. The other major cartoon studios in Hollywood had already signed agreements with the union. Disney's father was an ardent socialist, and Disney's films had long expressed a populist celebration of the common man. But Walt's response to the strike betrayed a different political sensibility. He fired employees who were sympathetic to the union, allowed private guards to rough up workers on the picket line, tried to impose a phony company union, brought in an organized crime figure from Chicago to rig a settlement, and placed a full-page ad in Variety that accused leaders of the Screen Cartoonists Guild of being Communists. The strike finally ended when Disney acceded to the union's demands. The experience left him feeling embittered. Convinced that Communist agents had been responsible for his troubles, Disney subsequently appeared as a friendly witness before the House Un-American Activities Committee, served as a secret informer for the FBI, and strongly supported the Hollywood blacklist. During the height of labor tension at his studio, Disney had made a speech to a group of employees, arguing that the solution to their problems rested not with a labor union, but with a good day's work. "Don't forget this," Disney told them, "it's the law of the universe that the strong shall survive and the weak must fall by the way, and I don't give a damn what idealistic plan is cooked up, nothing can change that."

Decades later, Ray Kroc used similar language to outline his own political philosophy. Kroc's years on the road as a traveling salesman — carrying his own order forms and sample books, knocking on doors, facing each new customer alone, and having countless doors slammed in his face — no doubt influenced his view of humanity. "Look, it is ridiculous to call this an industry," Kroc told a reporter in 1972, dismissing any high-minded analysis of the fast food business. "This is not. This is rat eat rat, dog eat dog. I'll kill 'em, and I'm going to kill 'em before they kill me. You're talking about the American way of survival of the fittest." While Disney backed right-wing groups and produced campaign ads for the Republican Party, Kroc remained aloof from electoral politics — with one notable exception. In 1972, Kroc gave $250,000 to President Nixon's reelection campaign, breaking the gift into smaller donations, funneling the money through various state and local Republican committees. Nixon had every reason to like McDonald's, long before tasting one of its hamburgers. Kroc had never met the president; the gift did not stem from any personal friendship or fondness. That year the fast food industry was lobbying Congress and the White House to pass new legislation — known as the "McDonald's bill" — that would allow employers to pay sixteen- and seventeen-year-old kids wages 20 percent lower than the minimum wage. Around the time of Kroc's $250,000 donation, McDonald's crew members earned about $1.60 an hour. The subminimum wage proposal would reduce some wages to $1.28 an hour.

The Nixon administration supported the McDonald's bill and permitted McDonald's to raise the price of its Quarter Pounders, despite the mandatory wage and price controls restricting other fast food chains. The size and the timing of Kroc's political contribution sparked Democratic accusations of influence peddling. Outraged by the charges, Kroc later called his critics "sons of bitches." The uproar left him wary of backing political candidates. Nevertheless, Kroc retained a soft spot for Calvin Coolidge, whose thoughts on hard work and self- reliance were prominently displayed at McDonald's corporate headquarters.

better living

DESPITE A PASSIONATE OPPOSITION to socialism and to any government meddling with free enterprise, Walt Disney relied on federal funds in the 1940s to keep his business afloat. The animators' strike had left the Disney Studio in a precarious financial condition. Disney began to seek government contracts — and those contracts were soon responsible for 90 percent of his studio's output. During World War II, Walt Disney produced scores of military training and propaganda films, including Food Will Win the War, High-Level Precision Bombing, and A Few Quick Facts About Venereal Disease. After the war, Disney continued to work closely with top military officials and military contractors, Becoming America's most popular exponent of Cold War science. For audiences living in fear of nuclear annihilation, Walt Disney became a source of reassurance, making the latest technical advances seem marvelous and exciting. His faith in the goodness of American technology was succinctly expressed by the title of a film that the Disney Studio produced for Westinghouse Electric: The Dawn of Better Living.

Disney's passion for science found expression in "Tomorrowland," the name given to a section of his theme park and to segments of his weekly television show. Tomorrowland encompassed everything from space travel to the household appliances of the future, depicting progress as a relentless march toward greater convenience for consumers. And yet, from the very beginning, there was a dark side to this Tomorrowland. It celebrated technology without moral qualms. Some of the science it espoused later proved to be not so benign — and some of the scientists it promoted were unusual role models for the nation's children.

In the mid-1950s Wernher von Braun cohosted and helped produce a series of Disney television shows on space exploration. "Man in Space" and the other Tomorrowland episodes on the topic were enormously popular and fueled public support for an American space program. At the time, von Braun was the U.S. Army's leading rocket scientist. He had served in the same capacity for the German army during World War II. He had been an early and enthusiastic member of the Nazi party, as well as a major in the SS. At least 20,000 slave laborers, many of them Allied prisoners of war, died at Dora-Nordhausen, the factory where von Braun's rockets were built. Less than ten years after the liberation of Dora-Nordhausen, von Braun was giving orders to Disney animators and designing a ride at Disneyland called Rocket to the Moon. Heinz Haber, another key Tomorrowland adviser — and eventually the chief scientific consultant to Walt Disney Productions — spent much of World War II conducting research on high-speed, high-altitude flight for the Luftwaffe Institute for Aviation Medicine. In order to assess the risks faced by German air force pilots, the institute performed experiments on hundreds of inmates at the Dachau concentration camp near Munich. The inmates who survived these experiments were usually killed and then dissected. Haber left Germany after the war and shared his knowledge of aviation medicine with the U.S. Army Air Force. He later cohosted Disney's "Man in Space" with von Braun. When the Eisenhower administration asked Walt Disney to produce a show championing the civilian use of nuclear Power, Heinz Haber was given the assignment. He hosted the Disney broadcast called "Our Friend the Atom" and wrote a popular children's book with the same title, both of which made nuclear fission seem fun, instead of terrifying. "Our Friend the Atom" was sponsored by General Dynamics, a manufacturer of nuclear reactors. The company also financed the atomic submarine ride at Disneyland's Tomorrowland.

The future heralded at Disneyland was one in which every aspect of American life had a corporate sponsor. Walt Disney was the most beloved children's entertainer in the country. He had unrivaled access to impressionable young minds — and other corporations, with other agendas to sell, were eager to come along for the ride. Monsanto built Disneyland's House of the Future, which was made of plastic. General Electric backed the Carousel of Progress, which featured an Audio-Animatronic housewife, standing in her futuristic kitchen, singing about "a great big beautiful tomorrow." Richfield Oil offered utopian fantasies about cars and a ride aptly named Autopia. "Here you leave today," said the plaque at the entrance to Disneyland, "and enter the world of Yesterday, Tomorrow, and Fantasy."

At first, Disneyland offered visitors an extraordinary feeling of escape; people had never seen anything like it. The great irony, of course, is that Disney's suburban, corporate world of Tomorrow would soon become the Anaheim of Today. Within a decade of its opening, Disneyland was no longer set amid a rural idyll of orange groves, it was stuck in the middle of cheap motels, and traffic jams on the Santa Ana freeway, fast food joints, and industrial parks. Walt Disney frequently slept at his small apartment above the firehouse in Disneyland's Main Street, USA. By the early 1960s, the hard realities of Today were more and more difficult to ignore, and Disney began dreaming of bigger things, of Disney World, a place even farther removed from the forces he'd helped to unleash, a fantasy that could be even more thoroughly controlled.

Among other cultural innovations, Walt Disney pioneered the marketing strategy now known as "synergy." During the 1930s, he signed licensing agreements with dozens of firms, granting them the right to use Mickey Mouse on their products and in their ads. In 1938 Snow White proved a turning point in film marketing: Disney had signed seventy licensing deals prior to the film's release. Snow White toys, books, clothes, snacks, and records were already for sale when the film opened. Disney later used television to achieve a degree of synergy beyond anything that anyone had previously dared. His first television broadcast, One Hour in Wonderland (1950), culminated in a promotion for the upcoming Disney film Alice in Wonderland. His first television series, Disneyland (1954), provided weekly updates on the construction work at his theme park. ABC, which broadcast the show, owned a large financial stake in the Anaheim venture. Disneyland's other major investor, Western Printing and Lithography, printed Disney books such as The Walt Disney Story of Our Friend the Atom. In the guise of televised entertainment, episodes of Disneyland were often thinly disguised infomercials, promoting films, books, toys, an amusement park — and, most of all, Disney himself, the living, breathing incarnation of a brand, the man who neatly tied all the other commodities together into one cheerful, friendly, patriotic idea.

Ray Kroc could only dream, during McDonald's tough early years, of having such marketing tools at his disposal. He was forced to rely instead on his wits, his charisma, and his instinct for promotion. Kroc believed completely in whatever he sold and pitched McDonald's franchises with an almost religious fervor. He also knew a few things about publicity, having auditioned talent for a Chicago radio station in the 1920s and performed in nightclubs for years. Kroc hired a publicity firm led by a gag writer and a former MGM road manager to get McDonald's into the news. Children would be the new restaurant chain's target customers. The McDonald brothers had aimed for a family crowd, and now Kroc improved and refined their marketing strategy. He'd picked the right moment. America was in the middle of a baby boom; the number of children had soared in the decade after World War II. Kroc wanted to create a safe, clean, all-American place for kids. The McDonald's franchise agreement required every new restaurant to fly the Stars and Stripes. Kroc understood that how he sold food was just as important as how the food tasted. He liked to tell people that he was really in show business, not the restaurant business. Promoting McDonald's to children was a clever, pragmatic decision. "A child who loves our TV commercials," Kroc explained, " and brings her Grandparents to a McDonald's gives us two more customers."

The McDonald's Corporation's first mascot was Speedee, a winking little chef with a hamburger for a head. The character was later renamed Archie McDonald. Speedy was the name of Alka-Seltzer's mascot, and it seemed unwise to imply any connection between the two brands. In 1960, Oscar Goldstein, a McDonald's franchise in Washington, D . C ., decided to sponsor Bozo's Circus, a local children's television show. Bozo's appearance at a McDonald's restaurant drew large crowds. When the local NBC station canceled Bozo's Circus in 1963, Goldstein hired its star — Willard Scott, later the weatherman on NBC's Today show — to invent a new clown who could make restaurant appearances. An ad agency designed the outfit, Scott came up with the name Ronald McDonald, and a star was born. Two years later the McDonald's Corporation introduced Ronald McDonald to the rest of the United States through a major ad campaign. But Willard Scott no longer played the part. He was deemed too overweight; McDonald's wanted someone thinner to sell its burgers, shakes, and fries.

The late-1960s expansion of the McDonald's restaurant chain coincided with declining fortunes at the Walt Disney Company. Disney was no longer alive, and his vision of America embodied just about everything that kids of the sixties were rebelling against. Although McDonald's was hardly a promoter of whole foods and psychedelia, it had the great advantage of seeming new — and there was something trippy about Ronald McDonald, his clothes, and his friends. As Mc-Donald's mascot began to rival Mickey Mouse in name recognition, Kroc made plans to create his own Disneyland. He was a highly competitive man who liked, whenever possible, to settle the score. "If they were drowning to death," Kroc once said about his business rivals, "I would put a hose in their mouth." He planned to buy 1,500 acres of land northeast of Los Angeles and build a new amusement park there. The park, tentatively called Western World, would have a cowboy theme. Other McDonald's executives opposed the idea, worried that Western World would divert funds from the restaurant business and lose millions. Kroc offered to option the land with his own money, but finally listened to his close advisers and scrapped the plan. The McDonald's Corporation later considered buying Astro World in Houston. Instead of investing in a large theme park, the company pursued a more decentralized approach. It built small Playlands and McDonaldlands all over the United States.

The fantasy world of McDonaldland borrowed a good deal from Walt Disney's Magic Kingdom. Don Ament, who gave McDonaldland its distinctive look, was a former Disney set designer. Richard and Robert Sher man — who had written and composed, among other things, all the songs in Disney's Mary Poppins, Disneyland's "It's a Great, Big, Beautiful Tomorrow" and "It's a Small World, After All" — were enlisted for the first McDonaldland commercials. Ronald McDonald, Mayor McCheese, and the other characters in the ads made McDonald's seem like more than just another place to eat. McDonaldland — with its hamburger patch, apple pie trees, and Filet-O-Fish fountain — had one crucial thing in common with Disneyland. Almost everything in it was for sale. McDonald's soon loomed large in the imagination of toddlers, the intended audience for the ads. The restaurant chain evoked a series of pleasing images in a youngster's mind: bright colors, a playground, a toy, a clown, a drink with a straw, little pieces of food wrapped up like a present. Kroc had succeeded, like his old Red Cross comrade, at selling something intangible to children, along with their fries.

kid kustomers

TWENTY-FIVE YEARS AGO, only a handful of American companies directed their marketing at children — Disney, McDonald's, candy makers, toy makers, manufacturers of breakfast cereal. Today children are being targeted by phone companies, oil companies, and automobile companies, as well as clothing stores and restaurant chains. The explosion in children's advertising occurred during the 1980s. Many working parents, feeling guilty about spending less time with their kids, started spending more money on them. One marketing expert has called the 1980s "the decade of the child consumer." After largely ignoring children for years, Madison Avenue began to scrutinize and pursue them. Major ad agencies now have children's divisions, and a variety of marketing firms focus solely on kids. These groups tend to have sweet- sounding names: Small Talk, Kid Connection, Kid2Kid, the Gepetto Group, Just Kids, Inc. At least three industry publications — Youth Market Alert, Selling to Kids, and Marketing to Kids Report — cover the latest ad campaigns and market research. The growth in children's advertising has been driven by efforts to increase not just current, but also future, consumption. Hoping that nostalgic childhood memories of a brand will lead to a lifetime of purchases, companies now plan "cradle-to-grave" advertising strategies. They have come to believe what Ray Kroc and Walt Disney realized long ago — a person's "brand loyalty" may begin as early as the age of two. Indeed, market research has found that children often recognize a brand logo before they can recognize their own name.

The discontinued Joe Camel ad campaign, which used a hip cartoon character to sell cigarettes, showed how easily children can be influenced by the right corporate mascot. A 1991 study published in the Journal of the American Medical Association found that nearly all of America's six-year-olds could identify Joe Camel, who was just as familiar to them as Mickey Mouse. Another study found that one-third of the cigarettes illegally sold to minors were Camels. More recently, a marketing firm conducted a survey in shopping malls across the country, asking children to describe their favorite TV ads. According to the CME KidCom Ad Traction Study II, released at the 1999 Kids' Marketing Conference in San Antonio, Texas, the Taco Bell commercials featuring a talking chihuahua were the most popular fast food ads. The kids in the survey also liked Pepsi and Nike commercials, but their favorite television ad was for Budweiser.

The bulk of the advertising directed at children today has an immediate goal. "It's not just getting kids to whine," one marketer explained in Selling to Kids, "it's giving them a specific reason to ask for the product." Years ago sociologist Vance Packard described children as "surrogate salesmen" who had to persuade other people, usually their parents, to buy what they wanted. Marketers now use different terms to explain the intended response to their ads — such as "leverage," "the nudge factor," "pester power." The aim of most children's advertising is straightforward: get kids to nag their parents and nag them well.

James U. McNeal, a professor of marketing at Texas A&M

University, is considered America's leading authority on marketing to children. In his book Kids As Customers (1992), McNeal provides marketers with a thorough analysis of "children's requesting styles and appeals." He classifies juvenile nagging tactics into seven major categories. A pleading nag is one accompanied by repetitions of words like "please" or "mom, mom, mom." A persistent nag involves constant requests for the coveted product and may include the phrase "I'm gonna ask just one more time." Forceful nags are extremely pushy and may include subtle threats, like "Well, then, I'll go and ask Dad." Demonstrative nags are the most high-risk, often characterized by full-blown tantrums in public places, breath-holding, tears, a refusal to leave the store. Sugar-coated nags promise affection in return for a purchase and may rely on seemingly heartfelt declarations like "You're the best dad in the world." Threatening nags are youthful forms of blackmail, vows of eternal hatred and of running away if something isn't bought. Pity nags claim the child will be heartbroken, teased, or socially stunted if the parent refuses to buy a certain item. "All of these appeals and styles may be used in combination," McNeal's research has discovered, "but kids tend to stick to one or two of each that prove most effective... for their own parents."

McNeal never advocates turning children into screaming, breath-holding monsters. He has been studying "Kid Kustomers" for more than thirty years and believes in a more traditional marketing approach. "The key is getting children to see a firm... in much the same way as [they see] mom or dad, grandma or grandpa," McNeal argues. "Likewise, if a company can ally itself with universal values such as patriotism, national defense, and good health, it is likely to nurture belief in it among children."

Before trying to affect children's behavior, advertisers have to learn about their tastes. Today's market researchers not only conduct surveys of children in shopping malls, they also organize focus groups for kids as young as two or three. They analyze children's artwork, hire children to run focus groups, stage slumber parties and then question children into the night. They send cultural anthropologists into homes, stores, fast food restaurants, and other places where kids like to gather, quietly and surreptitiously observing the behavior of prospective customers. They study the academic literature on child development, seeking insights from the work of theorists such as Erik Erikson and Jean Piaget. They study the fantasy lives of young children, then apply the findings in advertisements and product designs.

Dan S. Acuff — the president of Youth Market System Consulting and the author of What Kids Buy and Why (1997) — stresses the importance of dream research. Studies suggest that until the age of six, roughly 80 percent of children's dreams are about animals. Rounded, soft creatures like Barney, Disney's animated characters, and the Teletubbies therefore have an obvious appeal to young children. The Character Lab, a division of Youth Market System Consulting, uses a proprietary technique called Character Appeal Quadrant Analysis to help companies develop new mascots. The technique purports to create imaginary characters who perfectly fit the targeted age group's level of cognitive and neurological development.

Children's clubs have for years been considered an effective means of targeting ads and collecting demographic information; the clubs appeal to a child's fundamental need for status and belonging. Disney's Mickey Mouse Club, formed in 1930, was one of the trailblazers. During the 1980s and 1990s, children's clubs proliferated, as corporations used them to solicit the names, addresses, zip codes, and personal comments of young customers. "Marketing messages sent through a club not only can be personalized," James McNeal advises, "they can be tailored for a certain age or geographical group." A well–designed and well-run children's club can be extremely good for business. According to one Burger King executive, the creation of a Burger King Kids Club in 1991 increased the sales of children's meals as much as 300 percent.

The Internet has become another powerful tool for assembling data about children. In 1998 a federal investigation of Web sites aimed at children found that 89 percent requested personal information from kids; only 1 percent required that children obtain parental approval before supplying the information. A character on the McDonald's Web site told children that Ronald McDonald was "the ultimate authority in everything." The site encouraged kids to send Ronald an e-mail revealing their favorite menu item at McDonald's, their favorite book, their favorite sports team — and their name. Fast food Web sites no longer ask children to provide personal information without first gaining parental approval; to do so is now a violation of federal law, thanks to the Children's Online Privacy Protection Act, which took effect in April of 2000.

Despite the growing importance of the Internet, television remains the primary medium for children's advertising. The effects of these TV ads have long been a subject of controversy. In 1978, the Federal Trade

Commission (FTC) tried to ban all television ads directed at children seven years old or younger. Many studies had found that young children often could not tell the difference between television programming and television advertising. They also could not comprehend the real purpose of commercials and trusted that advertising claims were true. Michael Pertschuk, the head of the FTC, argued that children need to be shielded from advertising that preys upon their immaturity. "They cannot protect themselves," he said, "against adults who exploit their present-mindedness."

The FTC's proposed ban was supported by the American Academy of Pediatrics, the National Congress of Parents and Teachers, the Consumers Union, and the Child Welfare League, among others. But it was attacked by the National Association of Broadcasters, the Toy Manufacturers of America, and the Association of National Advertisers. The industry groups lobbied Congress to prevent any restrictions on children's ads and sued in federal court to block Pertschuk from participating in future FTC meetings on the subject. In April of 1981, three months after the inauguration of President Ronald Reagan, an FTC staff report argued that a ban on ads aimed at children would be impractical, effectively killing the proposal. "We are delighted by the FTC's reasonable recommendation," said the head of the National Association of Broadcasters.

The Saturday-morning children's ads that caused angry debates twenty years ago now seem almost quaint. Far from being banned, TV advertising aimed at kids is now broadcast twenty-four hours a day, closed-captioned and in stereo. Nickelodeon, the Disney Channel, the Cartoon Network, and the other children's cable networks are now responsible for about 80 percent of all television viewing by kids. None of these networks existed before 1979. The typical American child now spends about twenty-one hours a week watching television — roughly one and a half months of TV every year. That does not include the time children spend in front of a screen watching videos, playing video games, or using the computer. Outside of school, the typical American child spends more time watching television than doing any other activity except sleeping. During the course of a year, he or she watches more than thirty thousand TV commercials. Even the nation's youngest children are watching a great deal of television. About one-quarter of American children between the ages of two and five have a TV in their room.

perfect synergy

ALTHOUGH THE FAST FOOD chains annually spend about $3 billion on television advertising, their marketing efforts directed at children extend far beyond such conventional ads. The McDonald's Corporation now operates more than eight thousand playgrounds at its restaurants in the United States. Burger King has more than two thousand. A manufacturer of "playlands" explains why fast food operators build these largely plastic structures: "Playlands bring in children, who bring in parents, who bring in money." A American cities and towns spend less money on children's recreation, fast food restaurants have become gathering spaces for families with young children. Every month about 90 percent of American children between the ages of three and nine visit a McDonald's. The seesaws, slides, and pits full of plastic balls have proven to be an effective lure. "But when it gets down to brass tacks," a Brandweek article on fast food notes, "the key to attracting kids is toys, toys, toys."

The fast food industry has forged promotional links with the nation's leading toy manufacturers, giving away simple toys with children's meals and selling more elaborate ones at a discount. The major toy crazes of recent years — including Pokémon cards, Cabbage Patch Kids, and Tamogotchis — have been abetted by fast food promotions. A successful promotion easily doubles or triples the weekly sales volume of children's meals. The chains often distribute numerous versions of a toy, encouraging repeat visits by small children and adult collectors who hope to obtain complete sets. In 1999 McDonald's distributed eighty different types of Furby. According to a publication called Tomart's Price Guide to McDonald's Happy Meal Collectibles, some fast food giveaways are now worth hundreds of dollars.

Rod Taylor, a Brandweek columnist, called McDonald's 1997 Teenie Beanie Baby giveaway one of the most successful promotions in the history of American advertising. At the time McDonald's sold about 10 million Happy Meals in a typical week. Over the course often days in April of 1997, by including a Teenie Beanie Baby with each purchase, McDonald's sold about 100 million Happy Meals. Rarely has a marketing effort achieved such an extraordinary rate of sales among its intended consumers. Happy Meals are marketed to children between the ages of three and nine; within ten days about four Teenie

Beanie Baby Happy Meals were sold for every American child in that age Group. Not all of those Happy Meals were purchased for children. Many adult collectors bought Teenie Beanie Baby Happy Meals, kept the dolls, and threw away the food.

The competition for young customers has led the fast food chains to form marketing alliances not just with toy companies, but with sports leagues and Hollywood studios. McDonald's has staged promotions with the National Basketball Association and the Olympics. Pizza Hut, Taco Bell, and KFC signed a three-year deal with the NCAA. Wendy's has linked with the National Hockey League. Burger King and Nickelodeon, Denny's and Major League Baseball, McDonald's and the Fox Kids Network have all formed partnerships that mix advertisements for fast food with children's entertainment. Burger King has sold chicken nuggets shaped like Teletubbies. McDonald's now has its own line of children's videos starring Ronald McDonald. The Wacky Adventures of Ronald McDonald is being produced by Klasky-Csupo, the company that makes Rugrats and The Simpsons. The videos feature the McDonaldland characters and sell for $3.49. "We see this as a great opportunity," a McDonald's executive said in a press release, "to create a more meaningful relationship between Ronald and kids."

All of these cross-promotions have strengthened the ties between Hollywood and the fast food industry. In the past few years, the major studios have started to recruit fast food executives. Susan Frank, a former director of national marketing for McDonald's, later became a marketing executive at the Fox Kids Network. She now runs a new family-oriented cable network jointly owned by Hallmark Entertainment and the Jim Henson Company, creator of the Muppets. Ken Snelgrove, who for many years worked as a marketer for Burger King and McDonald's, now works at MGM. Brad Ball, a former senior vice president of marketing at McDonald's, is now the head of marketing for Warner Brothers. Not long after being hired, Ball told the Hollywood Reporter that there was little difference between selling films and selling hamburgers. John Cywinski, the former head of marketing at Burger King, became the head of marketing for Walt Disney's film division in 1996, then left the job to work for McDonald's. Forty years after Bozo's first promotional appearance at a McDonald's, amid all the marketing deals, giveaways, and executive swaps, America's fast food culture has become indistinguishable from the popular culture of its children.

In May of 1996, the Walt Disney Company signed a ten-year global marketing agreement with the McDonald's Corporation. By linking with a fast food company, a Hollywood studio typically gains anywhere from $25 million to $45 million in additional advertising for a film, often doubling its ad budget. These licensing deals are usually negotiated on a per-film basis; the 1996 agreement with Disney gave McDonald's exclusive rights to that studio's output of films and videos. Some industry observers thought Disney benefited more from the deal, gaining a steady source of marketing funds. According to the terms of the agreement, Disney characters could never be depicted sitting in a McDonald's restaurant or eating any of the chain's food. In the early 1980s, the McDonald's Corporation had turned away offers to buy Disney; a decade later, McDonald's executives sounded a bit defensive about having given Disney greater control over how their joint promotions would be run. "A lot of people can't get used to the fact that two big global brands with this kind of credibility can forge this kind of working relationship," a McDonald's executive told a reporter. "It's about their theme parks, their next movie, their characters, their videos… It's bigger than a hamburger. It's about the integration of our two brands, long-term."

The life's work of Walt Disney and Ray Kroc had come full-circle, uniting in perfect synergy. McDonald's began to sell its hamburgers and French fries at Disney's theme parks. The ethos of McDonaldland and of Disneyland, never far apart, have finally become one. Now you can buy a Happy Meal at the Happiest Place on Earth.

the brand essence

THE BEST INSIGHT INTO the thinking of fast food marketers comes from their own words. Confidential documents from a recent McDonald's advertising campaign give a clear sense of how the restaurant chain views its customers. The McDonald's Corporation was facing a long list of problems. "Sales are decreasing," one memo noted. "People are telling us Burger King and Wendy's are doing a better job of giving… better food at the best price," another warned. Consumer research indicated that future sales in some key areas were at risk. "More customers are telling us," an executive wrote, "that McDonald's is a big company that just wants to sell… sell as much as it can." An emotional connection to McDonald's that customers had formed "as toddlers" was now eroding. The new radio and television advertising had to make people feelthat McDonald's still cared about them. It had to link the McDonald's of today to the one people loved in the past. "The challenge of the campaign," wrote Ray Bergold, the chain's top marketing executive, "is to make customers believe that McDonald's is their 'Trusted Friend.'"

According to these documents, the marketing alliances with other brands were intended to create positive feelings about McDonald's, making consumer's associate one thing they liked with another. Ads would link the company's French fries "to the excitement and fanaticism people feel about the NBA." The feelings of pride inspired by the Olympics would be used in ads to help launch a new hamburger with more meat than the Big Mac. The link with the Walt Disney Company was considered by far the most important, designed to "enhance perceptions of Brand McDonald's." A memo sought to explain the underlying psychology behind many visits to McDonald's: parents took their children to McDonald's because they "want the kids to love them… it makes them feel like a good parent." Purchasing something from Disney was the "ultimate" way to make kids happy, but it was too expensive to do every day. The advertising needed to capitalize on these feelings, letting parents know that "ONLY McDonald's MAKES IT EASY TO GET A BIT OF DISNEY MAGIC." The ads aimed at "minivan parents" would carry an unspoken message about taking your children to McDonald's: "It'S an easy way to feel like a good parent."

The fundamental goal of the "My McDonald's" campaign that stemmed from these proposals was to make a customer feel that Mc-Donald's "cares about me" and "knows about me." A corporate memo introducing the campaign explained: "The essence McDonald's is embracing is 'Trusted Friend'... 'Trusted Friend' captures all the goodwill and the unique emotional connection customers have with the McDonald's experience… [Our goal is to make] customers believe McDonald's is their 'Trusted Friend' Note: this should be done without using the words 'Trusted Friend'... Every commercial [should be] honest… Every message will be in good taste and feel like it comes from a trusted friend." The words "trusted friend" were never to be mentioned in the ads because doing so might prematurely "wear out a brand essence" that could prove valuable in the future for use among different national, ethnic, and age groups. Despite McDonald's faith in its trusted friends, the opening page of this memo said in bold red letters:

mcteachers and coke dudes

NOT SATISFIED WITH MARKETING to children through playgrounds, toys, cartoons, movies, videos, charities, and amusement parks, through contests, sweepstakes, games, and clubs, via television, radio, magazines, and the Internet, fast food chains are now gaining access to the last advertising-free outposts of American life. In 1993 District 11 in Colorado Springs started a nationwide trend, becoming the first public school district in the United States to place ads for Burger King in its hallways and on the sides of its school buses. Like other school systems in Colorado, District 11 faced revenue shortfalls, thanks to growing enrollments and voter hostility to tax increases for education. The initial Burger King and King Sooper ad contracts were a disappointment for the district, gaining it just $37,500 a year — little more than $1 per student. In 1996, school administrators decided to seek negotiating help from a professional, hiring Dan DeRose, president of DD Marketing, Inc., of Pueblo, Colorado. DeRose assembled special advertising packages for corporate sponsors. For $12,000, a company got five school-bus ads, hallway ads in all fifty-two of the district's schools, ads in their school newspapers, a stadium banner, ads over the stadium's public- address system during games, and free tickets to high school sporting events.

Within a year, DeRose had nearly tripled District 11's ad revenues. But his greatest success was still to come. In August of 1997, DeRose brokered a ten-year deal that made Coca-Cola the district's exclusive beverage supplier, bringing the schools up to $11 million during the life of the contract (minus DD Marketing's fee). The deal also provided free use of a 1998 Chevy Cavalier to a District 11 high school senior, chosen by lottery, who had good grades and a perfect attendance record.

District 11's marketing efforts were soon imitated by other school districts in Colorado, by districts in Pueblo, Fort Collins, Denver, and Cherry Creek. Administrators in Colorado Springs did not come up with the idea of using corporate sponsorship to cover shortfalls in a school district's budget. But they took it to a whole new level, packaging it, systematizing it, leading the way. Hundreds of public school districts across the United States are now adopting or considering similar arrangements. Children spend about seven hours a day, one hundred and fifty days a year, in school. Those hours have in the past been largely free of advertising, promotion, and market research — a source of frustration to many companies. Today the nation's fast food chains are marketing their products in public schools through conventional ad campaigns, classroom teaching materials, and lunchroom franchises, as well as a number of unorthodox means.

The proponents of advertising in the schools argue that it is necessary to prevent further cutbacks; opponents contend that schoolchildrenare becoming a captive audience for marketers, compelled by law to attend school and then forced to look at ads as a means of paying for their own education. America's schools now loom as a potential gold mine for companies in search of young customers. "Discover your own river of revenue at the schoolhouse gates," urged a brochure at the 1997 Kids Power Marketing Conference. "Whether its first-graders learning to read or teenagers shopping for their first car, we can guarantee an introduction of your product and your company to these students in the traditional setting of the classroom."

DD Marketing, with offices in Colorado Springs and Pueblo, has emerged as perhaps the nation's foremost negotiator of ad contracts for schools. Dan DeRose began his career as the founder of the Minor League Football System, serving in the late 1980s as both a team owner and a player. In 1991, he became athletic director at the University of Southern Colorado in Pueblo. During his first year, he raised $250,000 from corporate sponsors for the school's teams. Before long he was raising millions of dollars to build campus sports facilities. He was good at getting money out of big corporations, and formed DD Marketing to use this skill on behalf of schools and nonprofits. Beverage companies and athletic shoe companies had long supported college sports programs, and during the 1980s began to put up the money for new high school scoreboards. Dan DeRose saw marketing opportunities that were still untapped. After negotiating his first Colorado Springs package deal in 1996, he went to work for the Grapevine-Colleyville School District in Texas. The district would never have sought advertising, its deputy superintendent told the Houston Chronicle, "if it weren't for the acute need for funds." DeRose started to solicit ads not only for the district's hallways, stadiums, and buses, but also for its rooftops — so that passengers flying in or out of the nearby

Dallas–Fort Worth airport could see them —and for its voice-mail systems. "You've reached Grapevine-Colleyville school district, proud partner of Dr Pepper," was a message that DeRose proposed. Although some people in the district were skeptical about the wild ideas of this marketer from Colorado, DeRose negotiated a $3.4 million dollar exclusive deal between the Grapevine-Colleyville School District and Dr Pepper in June of 1997. And Dr Pepper ads soon appeared on school rooftops.

Dan DeRose tells reporters that his work brings money to school districts that badly need it. By pitting one beverage company against another in bidding wars for exclusive deals, he's raised the prices being offered to schools. "In Kansas City they were getting 67 cents a kid before," he told one reporter, "and now they're getting $27." The major beverage companies do not like DeRose and prefer not to deal with him. He views their hostility as a mark of success. He doesn't think that advertising in the schools will corrupt the nation's children and has little tolerance for critics of the trend. "There are critics to penicillin," he told the Fresno Bee. In the three years following his groundbreaking contract for School District 11 in Colorado Springs, Dan DeRose negotiated agreements for seventeen universities and sixty public school systems across the United States, everywhere from Greenville, North Carolina, to Newark, New Jersey. His 1997 deal with a school district in Derby, Kansas, included the commitment to open a Pepsi GeneratioNext Resource Center at an elementary school. Thus far, DeRose has been responsible for school and university beverage deals worth more than $200 million. He typically accepts no money up front, then charges schools a commission that takes between 25 and 35 percent of the deal's total revenues.

The nation's three major beverage manufacturers are now spending large sums to increase the amount of soda that American children consume. Coca-Cola, Pepsi, and Cadbury-Schweppes (the maker of Dr Pepper) control 90.3 percent of the U.S. market, but have been hurt by declining sales in Asia. Americans already drink soda at an annual rate of about fifty-six gallons per person — that's nearly six hundred twelve-ounce cans of soda per person. Coca-Cola has set itself the goal of raising consumption of its products in the United States by at least 25 percent a year. The adult market is stagnant; selling more soda to kids has become one of the easiest ways to meet sales projections. "Influencing elementary school students is very important to soft drink marketers," an article in the January 1999 issue of Beverage

Industry explained, "because children are still establishing their tastes and habits." Eight-year-olds are considered ideal customers; they have about sixty-five years of purchasing in front of them. "Entering the schools makes perfect sense," the trade journal concluded.

The fast food chains also benefit enormously when children drink more soda. The chicken nuggets, hamburgers, and other main courses sold at fast food restaurants usually have the lowest profit margins. Soda has by far the highest. "We at McDonald's are thankful," a top executive once told the New York Times, "that people like drinks with their sandwiches." Today McDonald's sells more Coca-Cola than anyone else in the world. The fast food chains purchase Coca-Cola syrup for about $4.25 a gallon. A medium Coke that sells for $1.29 contains roughly 9 cents' worth of syrup. Buying a large Coke for $1.49 instead, as the cute girl behind the counter always suggests, will add another 3 cents' worth of syrup — and another 17 cents in pure profit for Mc-Donald's.

"Liquid Candy," a 1999 study by the Center for Science in the Public Interest, describes who is not benefiting from the beverage industry's latest marketing efforts: the nation's children. In 1978, the typical teenage boy in the United States drank about seven ounces of soda every day; today he drinks nearly three times that amount, deriving 9 percent of his daily caloric intake from soft drinks. Soda consumption among teenaged girls has doubled within the same period, reaching an average of twelve ounces a day. A significant number of teenage boys are now drinking five or more cans of soda every day. Each can contains the equivalent of about ten teaspoons of sugar. Coke, Pepsi, Mountain Dew, and Dr Pepper also contain caffeine. These sodas provide empty calories and have replaced far more nutritious beverages in the American diet. Excessive soda consumption in childhood can lead to calcium deficiencies and a greater likelihood of bone fractures. Twenty years ago, teenage boys in the United States drank twice as much milk as soda; now they drink twice as much soda as milk. Soft-drink consumption has also become commonplace among American toddlers. About one-fifth of the nation's one- and two-year-olds now drink soda. "In one of the most despicable marketing gambits," Michael Jacobson, the author of "Liquid Candy" reports, "Pepsi, Dr Pepper and Seven-Up encourage feeding soft drinks to babies by licensing their logos to a major maker of baby bottles, Munchkin Bottling, Inc." A 1997 study published in the Journal of Dentistry for Children found that many infants were indeed being fed soda in those bottles.

The school marketing efforts of the large soda companies have not gone entirely unopposed. Administrators in San Francisco and Seattle have refused to allow any advertising in their schools. "It's our responsibility to make it clear that schools are here to serve children, not commercial interests," declared a member of the San Francisco Board of Education. Individual protests have occurred as well. In March of 1998, 1,200 students at Greenbrier High School in Evans, Georgia, assembled in the school parking lot, many of them wearing red and white clothing, to spell out the word "Coke." It was Coke in Education Day at the school, and a dozen Coca-Cola executives had come for the occasion. Greenbrier High was hoping for a $500 prize, which had been offered to the local high school that came up with the best marketing plan for Coca-Cola discount cards. As part of the festivities, Coke executives had lectured the students on economics and helped them bake a Coca-Cola cake. A photographer was hoisted above the parking lot by a crane, ready to record the human C-O-K-E for posterity. When the photographer started to take pictures, Mike Cameron — a Greenbrier senior, standing amid the letter C — suddenly revealed a T- shirt that said "Pepsi." His act of defiance soon received nationwide publicity, as did the fact that he was immediately suspended from school. The principal said Cameron could have been suspended for a week for the prank, but removed him from classes for just a day. "I don't consider this a prank," Mike Cameron told the Washington Post. "I like to be an individual. That's the way I am."

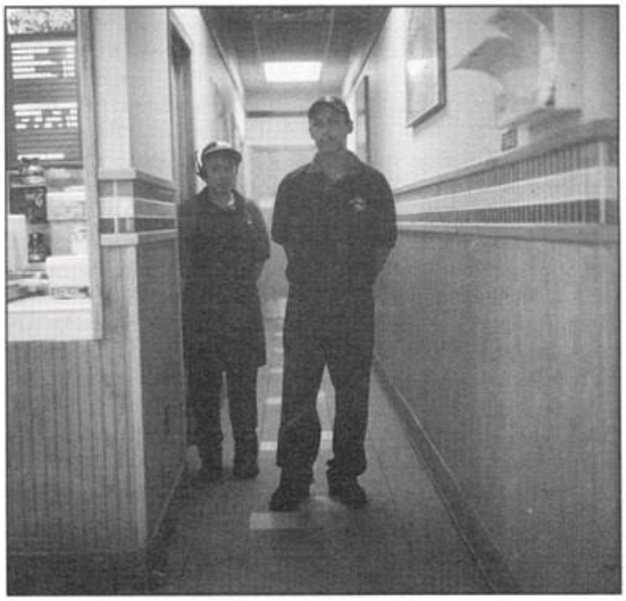
Most school advertising campaigns are more subtle than Greenbrier High's Coke in Education Day. The spiraling cost of textbooks has led thousands of American school districts to use corporate-sponsored teaching materials. A 1998 study of these teaching materials by the Consumers Union found that 80 percent were biased, providing students with incomplete or slanted information that favored the sponsor's products and views. Procter & Gamble's Decision Earth program taught that clear-cut logging was actually good for the environment; teaching aids distributed by the Exxon Education Foundation said that fossil fuels created few environmental, problems and that alternative sources of energy were too expensive; a study guide sponsored by the American Coal Foundation dismissed fears of a greenhouse effect, claiming that "the earth could benefit rather than be harmed from increased carbon dioxide." The Consumers Union found Pizza Hut's Book It! Program — which awards a free Personal Pan Pizza to children who reach targeted reading levels — to be "highly commercial." About twenty million elementary school students participated in Book It! during the 1999–2000 school year; Pizza Hut recently expanded the program to include a million preschoolers.

Lifetime Learning Systems is the nation's largest marketer and producer of corporate-sponsored teaching aids. The group claims that its publications are used by more than 60 million students every year. "Now you can enter the classroom through custom-made learning materials created with your specific marketing objectives in mind," Lifetime Learning said in one of its pitches to corporate sponsors. "Through these materials, your product or point of view becomes the focus of discussions in the classroom," it said in another, "... the centerpiece in a dynamic process that generates long-term awareness and lasting attitudinal change." The tax cuts that are hampering America's schools have proved to be a marketing bonanza for companies like Exxon, Pizza Hut, and McDonald's. The money that these corporations spend on their "educational" materials is fully tax-deductible.

The fast food chains run ads on Channel One, the commercial television network whose programming is now shown in classrooms, almost every school day, to eight million of the nation's middle, junior, and high school students — a teen audience fifty times larger than that of MTV. The fast food chains place ads with Star Broadcasting, a Minnesota company that pipes Top 40 radio into school hallways, lounges, and cafeterias. And the chains now promote their food by selling school lunches, accepting a lower profit margin in order to create brand loyalty. At least twenty school districts in the United States have their own Subway franchises; an additional fifteen hundred districts have Subway delivery contracts; and nine operate Subway sandwich carts. Taco Bell products are sold in about forty-five hundred school cafeterias. Pizza Hut, Domino's, and McDonald's are now selling food in the nation's schools. The American School Food Service Association estimates that about 30 percent of the public high schools in the United States offer branded fast food. Elementary schools in Fort Collins, Colorado, now serve food from Pizza Hut, McDonald's, and Subway on special lunch days. "We try to be more like the fast food places where these kids are hanging out," a Colorado school administrator told the Denver Post. "We want kids to think school lunch is a cool thing, the cafeteria a cool place, that we're 'with it,' that we're not institutional..."

The new corporate partnerships often put school officials in an awkward position. The Coca-Cola deal that DD Marketing negotiated for Colorado Springs School District 11 was not as lucrative as it first seemed. The contract specified annual sales quotas. School District 11 was obligated to sell at least seventy thousand cases of Coca-Cola products a year, within the first three years of the contract, or it would face reduced payments by Coke. During the 1997–98 school year, the district's elementary, middle, and high schools sold only twenty-one thousand cases of Coca-Cola products. Cara DeGette, the news editor of the Colorado Springs Independent, a weekly newspaper, obtained a memorandum sent to school principals by John Bushey, a District 11 administrator. On September 28, 1998, at the start of the new school year, Bushey warned the principals that beverage sales were falling short of projections and that as a result school revenues might be affected. Allow students to bring Coke products into the classrooms, he suggested; move Coke machines to places where they would be accessible to students all day. "Research shows that vendor purchases are closely linked to availability," Bushey wrote. "Location, location, location is the key." If the principals felt uncomfortable allowing kids to drink Coca-Cola during class, he recommended letting them drink the fruit juices, teas, and bottled waters also sold in the Coke machines. At the end of the memo, John Bushey signed his name and then identified himself as "the Coke dude."

Bushey left Colorado Springs in 2000 and moved to Florida. He is now the principal of the high school in Celebration, a planned community run by The Celebration Company, a subsidiary of Disney.



3/behind the counter

THE VIEW OF COLORADO SPRINGS from Gold Camp Road is spectacular. The old road takes you from the city limits to Cripple Creek, once a gold mining town with real outlaws, now an outpost of casino gambling full of one-armed bandits and day-trippers from Aurora. The tourist buses drive to Cripple Creek on Highway 67, which is paved. Gold Camp Road is a dirt road through the foothills of Pikes Peak, a former wagon trail that has narrow hairpin turns, no guardrails, and plenty of sheer drops. For years, kids from Cheyenne Mountain High School have come up here on weekend nights, parked at spots with good aerial views, and partied. On a clear night the stars in the sky and the lights of the city seem linked, as though one were reflecting the other. The cars and trucks on Interstate 25, heading north to Denver and south toward Pueblo, are tiny, slow-moving specks of white. The lights dwindle as the city gives way to the plains; at the horizon the land looks darker than the sky. The great beauty of this scene is diminished when the sun rises and you can clearly see what's happening down below.

Driving through the neighborhoods of Colorado Springs often seems like passing through layers of sedimentary rock, each one providing a snapshot of a different historical era. Downtown Colorado Springs still has an old-fashioned, independent spirit. Aside from a Kinko's, a Bruegger's Bagel Bakery, a Subway, and a couple of Starbucks, there are no chain stores, not a single Gap in sight. An eclectic mixture of locally owned businesses line Tejon Street, the main drag. The Chinook Bookshop, toward the north end, is as fiercely independent as they come — the sort of literate and civilized bookstore going out of business nationwide. Further down Tejon there's an ice cream parlor named Michelle's that has been in business for almost fifty years and, around the corner, there's a western wear shop called Lorig's that's outfitted local ranchers since 1932. An old movie palace, nicknamed "the Peak" and renovated with lots of neon, has a funky charm that could never be mass produced. But when you leave downtown and drive northeast, you head toward a whole new world.

The north end of the city near Colorado College is full of old Victorian houses and Mission-style bungalows from the early part of this century. Then come Spanish-style and adobe houses that were popular between the world wars. Then come split-level colonials and ranch- style houses from the Leave It to Beaver era, small, modest, cheery homes.

Once you hit Academy Boulevard, you are surrounded by the hard, tangible evidence of what has happened in Colorado during the last twenty years. Immense subdivisions with names like Sagewood, Summerfield, and Fairfax Ridge blanket the land, thousands upon thousands of nearly identical houses —the architectural equivalent of fast food —covering the prairie without the slightest respect for its natural forms, built on hilltops and ridgetops, just begging for a lightning strike, ringed by gates and brick walls and puny, newly planted trees that bend in the wind. The houses seem not to have been constructed by hand but manufactured by some gigantic machine, cast in the same mold and somehow dropped here fully made. You can easily get lost in these new subdivisions, lost for hours passing from Nor'wood, to Briargate, to Stetson Hills, from Antelope Meadows to Chapel Ridge, without ever finding anything of significance to differentiate one block from another —except their numbers. Roads end without warning, and sidewalks run straight into the prairie, blocked by tall, wild grasses that have not yet been turned into lawns.

Academy Boulevard lies at the heart of the new sprawl, serving as its main north-south artery. Every few miles, clusters of fast food joints seem to repeat themselves, Burger Kings, Wendy's, and McDonald's, Subways, Pizza Huts, and Taco Bells, they keep appearing along the road, the same buildings and signage replaying like a tape loop. You can drive for twenty minutes, pass another fast food cluster, and feel like you've gotten nowhere. In the bumper-to-bumper traffic of the evening rush hour, when the cars and the pavement and the strip malls are bathed in twilight, when the mountains in the distance are momentarily obscured, Academy Boulevard looks just like Harbor Boulevard in Anaheim, except newer. It looks like countless other retail strips in Orange County — and the resemblance is hardly coincidental.

space mountain

THE NEW HOUSING DEVELOPMENTS in Colorado Springs not only resemble those of southern California, they are inhabited by thousands of people who've recently left California. An entire way of life, along with its economic underpinnings, has been transposed from the West Coast to the Rockies. Since the early 1990s Colorado Springs has been one of the fastest-growing cities in the nation. The mountains, clear air, wide-open spaces, and unusually mild climate have drawn people tired of the traffic, crime, and pollution elsewhere. About a third of the city's inhabitants have lived there less than five years. In many ways Colorado Springs today is what Los Angeles was fifty years ago — a mecca for the disenchanted middle class, a harbinger of cultural trends, a glimpse of the future. Since 1970 the population of the Colorado Springs metropolitan area has more than doubled, reaching about half a million. The city is now an exemplar of low-density sprawl. Denver's population is about four times larger, and yet Colorado Springs covers more land.

Much like Los Angeles, Colorado Springs was a sleepy tourist town in the early part of the twentieth century, an enclave of wealthy invalids and retirees, surrounded by ranchland. Nicknamed "Little London," the city was a playground for the offspring of eastern financiers, penniless aristocrats, and miners who'd struck it rich in Cripple Creek. The town's leading attractions were the Broadmoor Hotel and the Garden of the Gods, an assortment of large rock formations. During the Great Depression, tourism plummeted, people moved away, and about one-fifth of the city's housing sat vacant. The outbreak of World War II provided a great economic opportunity. Like Los Angeles, Colorado Springs soon became dependent on military spending. The opening of Camp Carson and Peterson Army Air Base brought thou- sands of troops to the area, along with a direct capital investment of $30 million and an annual payroll of twice that amount. After the war, Colorado Springs gained a series of new military bases, thanks to its strategic location (midcontinent, beyond the range of Soviet bombers), its fine weather, and the friendships formed between local businessmen and air force officers at the Broadmoor. In 1951, the Air Defense Command moved to the city, eventually becoming the North American Aerospace Command, with its outpost deep within Cheyenne Mountain. Three years later, 18,000 acres north of town were chosen as the site of the new Air Force Academy. The number of army and air force personnel stationed in Colorado Springs subsequently grew to be larger than the city's entire population before World War II.

Although the local economy is far more diversified today, nearly half the jobs in Colorado Springs still depend upon military spending. During the 1990s, while major bases were being shut down across the country, new facilities kept opening in Colorado Springs. Much of the Star Wars antimissile defense system is being designed and tested at Schriever Air Force Base, a dozen miles east of the city. And Peterson Air Force Base now houses one of America's newest and most high-tech units — the Space Command. It launches, operates, and defends America's military satellites. It tests, maintains, and upgrades the nation's ballistic missiles. And it guides research on exotic space-based weaponry to attack enemy satellites, aircraft, and even targets on the ground. Officers at the Space Command believe that before long the United States will fight its first war in space. Should that day ever come, Colorado Springs will be at the center of the action. The motto of a local air force unit promises a new kind of American firepower: "In Your Face from Outer Space."

The presence of these high-tech military installations attracted defense contractors to Colorado Springs, mainly from California. Kaman Services arrived in 1957. Hewlett Packard followed in 1962. TRW, a southern California firm, opened its first Colorado Springs branch in 1968. Litton Data Systems moved one of its divisions from Van Nuys, California, to Colorado Springs in 1976. Not long afterward Ford Aerospace sold ten acres of land in Orange County and used the money to buy three hundred acres in Colorado Springs. Today a long list of defense contractors does business in the city. The advanced communications networks installed to serve those companies and the military have drawn computer chip manufacturers, telemarketers, and software companies to Colorado Springs. The quality of life is a big selling point, along with the well-educated workforce and the local attitudes toward labor. A publication distributed by the Colorado Springs Chamber of Commerce notes that in the city's private industry, the rate of union membership stands at 0.0 percent. Colorado

Springs now views itself as a place on the cutting edge, the high-tech capital of the Rockies. Business leaders promote the town with nicknames like "Silicon Mountain," "Space Mountain," and "The Space Capital of the Free World."

The new businesses and residents from southern California brought a new set of attitudes. In 1946, R. C. Hoiles, the owner of the Orange County Register and later the founder of the Freedom Newspaper chain, purchased the largest daily newspaper in Colorado Springs, the Gazette-Telegraph. Hoiles was politically conservative, a champion of competition and free enterprise; his editorials had attacked Herbert Hoover for being too left-wing. In the 1980s the Freedom Newspaper chain purchased the Gazette's only rival in town, the Colorado Springs Sun, a struggling paper with a more liberal outlook. After buying the Sun, Freedom Newspapers fired all its employees and shut it down. In 1990, James Dobson decided to move Focus on the Family, a religious organization, from the Los Angeles suburb of Pomona to Colorado Springs. Dobson is a child psychologist and radio personality as well as the author of a best-selling guide for parents, Dare to Discipline (1970). He blames weak parents for the excesses of the sixties youth counterculture, advocates spanking disobedient children with a "neutral object," and says that parents must convey to preschoolers two fundamental messages: "(1) I love you, little one, more than you can possibly understand… (2) Because I love you so much, I must teach you to obey me." Although less well known than Jerry Falwell's Moral Majority and Pat Robertson's Christian Coalition, Dobson's Focus on the Family generates much larger annual revenues.

The arrival of Focus on the Family helped turn Colorado Springs into a magnet for evangelical Christian groups. The city had always been more conservative than Denver, but that conservatism was usually expressed in the sort of live-and-let-live attitude common in the American West. During the early 1990s, religious groups in Colorado Springs became outspoken opponents of feminism, homosexuality, and Darwin's theory of evolution. The city became the headquarters for roughly sixty religious organizations, some of them large, some of them painfully obscure. Members and supporters of the International Bible Society, the Christian Booksellers Association, the World Radio Missionary Fellowship, Young Life, the Fellowship of Christian Cowboys, and World Christian Incorporated, among others, settled in Colorado Springs.

Today there is not a single elected official in Colorado Springs —or in El Paso County, the surrounding jurisdiction — who's a registered Democrat. Indeed, the Democratic Party did not even run a candidate for Congress there in 2000. The political changes that have lately swept through the city have also taken place, in a less extreme form, throughout the Rocky Mountain West. A generation ago, the region was one of the most liberal in the country. In 1972, all of the governors in the eight mountain states — Arizona, Colorado, Montana, Nevada, New Mexico, Wyoming, even Idaho and Utah — were Democrats. By 1998, all of the governors in these states were Republicans, as were three-quarters of the U.S. senators. The region is now more staunchly Republican than the American South.

As in Colorado Springs, the huge influx of white, middle-class voters from southern California has played a decisive role in the Rocky Mountain West's shift to the right. During the early 1990s, for the first time in California history, more people moved out of the state than into it. Between 1990 and 1995, approximately one million people left southern California, many of them heading to the mountain states. William H. Frey, a former professor of demography at the University of Michigan, has called this migration "the new white flight." In 1998, the white population of California fell below 50 percent for the first time since the Gold Rush. The exodus of whites has changed California's political equation as well, turning the birthplace of the Reagan Revolution into one of the nation's most solidly Democratic states.

Many of the problems that caused white, middle-class families to leave southern California are now appearing in the Rocky Mountain states. During the early 1990s, about 100,000 people moved to Colorado every year. But spending on government services did not increase at a corresponding rate — because Colorado voters enacted a Taxpayers Bill of Rights in 1992 that placed strict limits on new government spending. The initiative was modeled after California's Proposition 13 and championed by Douglas Bruce, a Colorado Springs landlord who'd recently arrived from Los Angeles. By the late 1990s, Colorado's spending on education ranked forty-ninth in the nation; fire departments throughout the state were understaffed; and parts of Interstate 25 in Colorado Springs were clogged with three times the number of cars that the highway was designed to hold. Meanwhile, the state government had an annual surplus of about $700 million that by law could not be used to solve any of these problems. The development along Colorado's Front Range is not yet as all-encompassing as the sprawl of Los Angeles — where one-third of the surface area is now covered by freeways, roads, and parking lots — but someday it may be.

Colorado Springs now has the feel of a city whose identity is not yet fixed. Many longtime residents strongly oppose the extremism of the newcomers, sporting bumper stickers that say, "Don't Californicate Colorado." The city is now torn between opposing visions of what America should be. Colorado Springs has twenty-eight Charismatic Christian churches and almost twice as many pawnbrokers, a Lord's Vineyard Bookstore and a First Amendment Adult Bookstore, a Christian Medical and Dental Society and a Holey Rollers Tattoo Parlor. It has a Christian summer camp whose founder, David Noebel, outlined the dangers of rock 'n' roll in his pamphlet Communism, Hypnotism, and the Beatles. It has a gay entertainment complex called The Hide & Seek, where the Gay Rodeo Association meets. It has a public school principal who recently disciplined a group of sixth-grade girls for reading a book on witchcraft and allegedly casting spells. The loopiness once associated with Los Angeles has come full-blown to Colorado Springs — the strange, creative energy that crops up where the future's consciously being made, where people walk the fine line separating a visionary from a total nutcase. At the start of a new century, all sorts of things seem possible there. The cultural and the physical landscapes of Colorado Springs are up for grabs.

Despite all the talk in Colorado about aerospace, biotech, computer software, telecommunications, and other industries of the future, the largest private employer in the state today is the restaurant industry. In Colorado Springs, the restaurant industry has grown much faster than the population. Over the last three decades the number of restaurants has increased fivefold. The number of chain restaurants has increased tenfold. In 1967, Colorado Springs had a total of twenty chain restaurants. Now it has twenty-one McDonald's.

The fast food chains feed off the sprawl of Colorado Springs, accelerate it, and help set its visual tone. They build large signs to attract motorists and look at cars the way predators view herds of prey. The chains thrive on traffic, lots of it, and put new restaurants at intersections where traffic is likely to increase, where development is heading but real estate prices are still low. Fast food restaurants often serve as the shock troops of sprawl, landing early and pointing the way. Some chains prefer to play follow the leader: when a new McDonald's opens, other fast food restaurants soon open nearby on the assumption that it must be a good location.

Regardless of the billions spent on marketing and promotion, all the ads on radio and TV, all the efforts to create brand loyalty, the major chains must live with the unsettling fact that more than 70 percent of fast food visits are "impulsive." The decision to stop for fast food is made on the spur of the moment, without much thought. The vast majority of customers do not set out to eat at a Burger King, a Wendy's, or a McDonald's. Often, they're not even planning to stop for food – until they see a sign, a familiar building, a set of golden arches. Fast food, like the tabloids at a supermarket checkout, is an impulse buy. In order to succeed, fast food restaurants must be seen.

The McDonald's Corporation has perfected the art of restaurant site selection. In the early days Ray Kroc flew in a Cessna to find schools, aiming to put new restaurants nearby. McDonald's later used helicopters to assess regional growth patterns, looking for cheap land along highways and roads that would lie at the heart of future suburbs. In the 1980s, the chain become one of the world's leading purchasers of commercial satellite photography, using it to predict sprawl from outer space. McDonald's later developed a computer software program called Quintillion that automated its site-selection process, combining satellite imagery with detailed maps, demographic information, CAD drawings, and sales information from existing stores. "Geographic information systems" like Quintillion are now routinely used as site- selection tools by fast food chains and other retailers. As one marketing publication observed, the software developed by Mc-Donald's permits businessmen to "spy on their customers with the same equipment once used to fight the cold war."

The McDonald's Corporation has used Colorado Springs as a test site for other types of restaurant technology, for software and machines designed to cut labor costs and serve fast food even faster. Steve Bigari, who owns five local McDonald's, showed me the new contraptions at his place on Constitution Avenue. It was a rounded, postmodern McDonald's on the eastern edge of the city. The drive-through lanes had automatic sensors buried in the asphalt to monitor the traffic. Robotic drink machines selected the proper cups, filled them with ice, and then filled them with soda. Dispensers powered by compressed carbon dioxide shot out uniform spurts of ketchup and mustard. An elaborate unit emptied frozen French fries from a white plastic bin into wire-mesh baskets for frying, lowered the baskets into hot oil, lifted them a few minutes later and gave them a brief shake, put them back into the oil until the fries were perfectly cooked, and then dumped the fries underneath heat lamps, crisp and ready to be served. Television monitors in the kitchen instantly displayed the customer's order. And advanced computer software essentially ran the kitchen, assigning tasks to various workers for maximum efficiency, predicting future orders On the basis of ongoing customer flow.

Bigari was cordial, good-natured, passionate about his work, proud of the new devices. He told me the new software brought the "just in time" production philosophy of Japanese automobile plants to the fast food business, a philosophy that McDonald's has renamed Made for You. As he demonstrated one contraption after another —including a wireless hand-held menu that uses radio waves to transmit orders —a group of construction workers across the street put the finishing touches on a new subdivision called Constitution Hills. The streets had patriotic names, and the cattle ranch down the road was for sale.

throughput

EVERY SATURDAY ELISA ZAMOT gets up at 5:15 in the morning. It's a struggle, and her head feels groggy as she steps into the shower. Her little sisters, Cookie and Sabrina, are fast asleep in their beds. By 5:30, Elisa's showered, done her hair, and put on her McDonald's uniform. She's sixteen, bright-eyed and olive-skinned, pretty and petite, ready for another day of work. Elisa's mother usually drives her the half-mile or so to the restaurant, but sometimes Elisa walks, leaving home before the sun rises. Her family's modest townhouse sits beside a busy highway on the south side of Colorado Springs, in a largely poor and working-class neighborhood. Throughout the day, sounds of traffic fill the house, the steady whoosh of passing cars. But when Elisa heads for work, the streets are quiet, the sky's still dark, and the lights are out in the small houses and rental apartments along the road.

When Elisa arrives at McDonald's, the manager unlocks the door and lets her in. Sometimes the husband-and-wife cleaning crew are just finishing up. More often, it's just Elisa and the manager in the restaurant, surrounded by an empty parking lot. For the next hour or so, the two of them get everything ready. They turn on the ovens and grills. They go downstairs into the basement and get food and supplies for the morning shift. They get the paper cups, wrappers, cardboard containers, and packets of condiments. They step into the big freezer and get the frozen bacon, the frozen pancakes, and the frozen cinnamon rolls. They get the frozen hash browns, the frozen biscuits, the frozen McMuffins. They get the cartons of scrambled egg mix and orange juice mix. They bring the food upstairs and start preparing it before any customers appear, thawing some things in the microwave and cooking other things on the grill. They put the cooked food in special cabinets to keep it warm.

The restaurant opens for business at seven o'clock, and for the next hour or so, Elisa and the manager hold down the fort, handling all the orders. As the place starts to get busy, other employees arrive. Elisa works behind the counter. She takes orders and hands food to customers from breakfast through lunch. When she finally walks home, after seven hours of standing at a cash register, her feet hurt. She's wiped out. She comes through the front door, flops onto the living room couch, and turns on the TV. And the next morning she gets up at 5:15 again and starts the same routine.

Up and down Academy Boulevard, along South Nevada, Circle Drive, and Woodman Road, teenagers like Elisa run the fast food restaurants of Colorado Springs. Fast food kitchens often seem like a scene from Bugsy Malone, a film in which all the actors are children pretending to be adults. No other industry in the United States has a workforce so dominated by adolescents. About two-thirds of the nation's fast food workers are under the age of twenty. Teenagers open the fast food outlets in the morning, close them at night, and keep them going at all hours in between. Even the managers and assistant managers are sometimes in their late teens. Unlike Olympic gymnastics — an activity in which teenagers consistently perform at a higher level than adults — there's nothing about the work in a fast food kitchen that requires young employees. Instead of relying upon a small, stable, well-paid, and well-trained workforce, the fast food industry seeks out part-time, unskilled workers who are willing to accept low pay. Teenagers have been the perfect candidates for these jobs, not only because they are less expensive to hire than adults, but also because their youthful inexperience makes them easier to control.

The labor practices of the fast food industry have their origins in the assembly line systems adopted by American manufacturers in the early twentieth century. Business historian Alfred D. Chandler has argued that a high rate of "throughput" was the most important aspect of these mass production systems. A factory's throughput is the speed and volume of its flow — a much more crucial measurement, according to Chandler, than the number of workers it employs or the value of its machinery. With innovative technology and the proper organization, a small number of workers can produce an enormous amount of goods cheaply. Throughput is all about increasing the speed of assembly, about doing things faster in order to make more.

Although the McDonald brothers had never encountered the term “throughput” or studied “scientific management,” they instinctively grasped the underlying principles and applied them in the Speedee Service System. The restaurant operating scheme they developed has been widely adopted and refined over the past half century. The ethos of the assembly line remains at its core. The fast food industry's obsession with throughput has altered the way millions of Americans work, turned commercial kitchens into small factories, and changed familiar foods into commodities that are manufactured.

At Burger King restaurants, frozen hamburger patties are placed on a conveyer belt and emerge from a broiler ninety seconds later fully cooked. The ovens at Pizza Hut and at Domino's also use conveyer belts to ensure standardized cooking times. The ovens at McDonald's look like commercial laundry presses, with big steel hoods that swing down and grill hamburgers on both sides at once. The burgers, chicken, french fries, and buns are all frozen when they arrive at a Mc-Donald's. The shakes and sodas begin as syrup. At Taco Bell restaurants the food is “assembled,” not prepared. The guacamole isn't made by workers in the kitchen; it's made at a factory in Michoacán, Mexico, then frozen and shipped north. The chain's taco meat arrives frozen and precooked in vacuum-sealed plastic bags. The beans are dehydrated and look like brownish corn flakes. The cooking process is fairly simple. “Everything's add water,” a Taco Bell employee told me. “Just add hot water.”

Although Richard and Mac McDonald introduced the division of labor to the restaurant business, it was a McDonald's executive named Fred Turner who created a production system of unusual thoroughness and attention to detail. In 1958, Turner put together an operations and training manual for the company that was seventy-five pages long, specifying how almost everything should be done. Hamburgers were always to be placed on the grill in six neat rows; French fries had to be exactly 0.28 inches thick. The McDonald's operations manual today has ten times the number of pages and weighs about four pounds. Known within the company as “the Bible,” it contains precise instructions on how various appliances should be used, how each item on the menu should look, and how employees should greet customers. Operators who disobey these rules can lose their franchises. Cooking instructions are not only printed in the manual, they are often designed into the machines. A McDonald's kitchen is full of buzzers and flashing lights that tell employees what to do.

At the front counter, computerized cash registers issue their own commands. Once an order has been placed, buttons light up and suggest other menu items that can be added. Workers at the counter are told to increase the size of an order by recommending special promotions, pushing dessert, pointing out the financial logic behind the purchase of a larger drink. While doing so, they are instructed to be upbeat and friendly. "Smile with a greeting and make a positive first impression," a Burger King training manual suggests. "Show them you are GLAD TO SEE THEM. Include eye contact with the cheerful greeting."

The strict regimentation at fast food restaurants creates standardized products. It increases the throughput. And it gives fast food companies an enormous amount of power over their employees. "When management determines exactly how every task is to be done... and can impose its own rules about pace, output, quality, and technique," the sociologist Robin Leidner has noted, "[it] makes workers increasingly interchangeable." The management no longer depends upon the talents or skills of its workers — those things are built into the operating system and machines. Jobs that have been "de-skilled" can be filled cheaply. The need to retain any individual worker is greatly reduced by the ease with which he or she can be replaced.

Teenagers have long provided the fast food industry with the bulk of its workforce. The industry's rapid growth coincided with the baby- boom expansion of that age group. Teenagers were in many ways the ideal candidates for these low-paying jobs. Since most teenagers still lived at home, they could afford to work for wages too low to support an adult, and until recently, their limited skills attracted few other employers. A job at a fast food restaurant became an American rite of passage, a first job soon left behind for better things. The flexible terms of employment in the fast food industry also attracted housewives who needed extra income. As the number of baby-boom teenagers Declined, the fast food chains began to hire other marginalized workers: recent immigrants, the elderly, and the handicapped.

English is now the second language of at least one-sixth of the nation's restaurant workers, and about one-third of that group speaks no

English at all. The proportion of fast food workers who cannot speak English is even higher. Many know only the names of the items on the menu; they speak "McDonald's English."

The fast food industry now employs some of the most disadvantaged members of American society. It often teaches basic job skills — such as getting to work on time — to people who can barely read, whose lives have been chaotic or shut off from the mainstream. Many Individual franchisees are genuinely concerned about the well-being of their workers. But the stance of the fast food industry on issues involving employee training, the minimum wage, labor unions, and overtime pay strongly suggests that its motives in hiring the young, the poor, and the handicapped are hardly altruistic.

stroking

AT A1999 conference on foodservice equipment, top American executives from Burger King, McDonald's, and Tricon Global Restaurants, Inc. (the owner of Taco Bell, Pizza Hut, and KFC) appeared together on a panel to discuss labor shortages, employee training, computerization, and the latest kitchen technology. The three corporations now employ about 3.7 million people worldwide, operate about 60,000 rrestaurants, and open a new fast food restaurant every two hours. Putting aside their intense rivalry for customers, the executives had realized at a gathering the previous evening that when it came to labor issues, they were in complete agreement. "We've come to the conclusion that we're in support of each other," Dave Brewer, the vice president of engineering at KFC, explained. "We are aligned as a team to support this industry." One of the most important goals they held in common was the redesign of kitchen equipment so that less money needed to be spent training workers. "Make the equipment intuitive, make it so that the job is easier to do right than to do wrong," advised Jerry Sus, the leading equipment systems engineer at McDonald's. "The easier it is for him [the worker] to use, the easier it is for us not to have to train him." John Reckert — director of strategic operations and of research and development at Burger King — felt optimistic about the benefits that new technology would bring the industry. "We can develop equipment that only works one way," Reckert said. "There are many different ways today that employees can abuse our product, mess up the flow... If the equipment only allows one process, there's very little to train." Instead of giving written instructions to crew members, another panelist suggested, rely as much as possible on photographs of menu items, and "if there are instructions, make them very simple, write them at a fifth-grade level, and write them in Spanish and English." All of the executives agreed that "zero training" was the fast food industry's ideal, though it might not ever be attained.

While quietly spending enormous sums on research and technology to eliminate employee training, the fast food chains have accepted hundreds of millions of dollars in government subsidies for "training" their workers. Through federal programs such as the Targeted Jobs Tax Credit and its successor, the Work Opportunity Tax Credit, the chains have for years claimed tax credits of up to $2,400 for each new low- income worker they hired. In 1996 an investigation by the U.S. Department of Labor concluded that 92 percent of these workers would have been hired by the companies anyway — and that their new jobs were part-time, provided little training, and came with no benefits. These federal subsidy programs were created to reward American companies that gave job training to the poor.

Attempts to end these federal subsidies have been strenuously opposed by the National Council of Chain Restaurants and its allies in Congress. The Work Opportunity Tax Credit program was renewed in 1996. It offered as much as $385 million in subsidies the following year. Fast food restaurants had to employ a worker for only four hundred hours to receive the federal money — and then could get more money as soon as that worker quit and was replaced. American taxpayers have in effect subsidized the industry's high turnover rate, providing company tax breaks for workers who are employed for just a few months and receive no training. The industry front group formed to defend these government subsidies is called the "Committee for Employment Opportunities." Its chief lobbyist, Bill Signer, told the
Houston Chronicle there was nothing wrong with the use of federal subsidies to create low-paying, low-skilled, short-term jobs for the poor. Trying to justify the minimal amount of training given to these workers, Signer said, "They've got to crawl before they can walk."

The employees whom the fast food industry expects to crawl are by far the biggest group of low-wage workers in the United States today. The nation has about 1 million migrant farm workers and about 3.5 million fast food workers. Although picking strawberries is orders of magnitude more difficult than cooking hamburgers, both jobs are now filled by people who are generally young, unskilled, and willing to work long hours for low pay. Moreover, the turnover rates for both jobs are among the highest in the American economy. The annual turnover rate in the fast food industry is now about 300 to 400 per-cent. The typical fast food worker quits or is fired every three to four months.

The fast food industry pays the minimum wage to a higher proportion of its workers than any other American industry. Consequently, a low minimum wage has long been a crucial part of the fast food industry's business plan. Between 1968 and 1990, the years when the fast food chains expanded at their fastest rate, the real value of the U.S. minimum wage fell by almost 40 percent. In the late 1990s, the real value of the U.S. minimum wage still remained about 27 percent lower than it was in the late 1960s. Nevertheless, the National Restaurant Association (NRA) has vehemently opposed any rise in the minimum wage at the federal, state, or local level. About sixty large food-service companies — including Jack in the Box, Wendy's, Chevy's, and Red Lobster — have backed congressional legislation that would essentially eliminate the federal minimum wage by allowing states to disregard it. Pete Meersman, the president of the Colorado Restaurant Association, advocates creating a federal guest worker program to import low-wage foodservice workers from overseas.

While the real value of the wages paid to restaurant workers has declined for the past three decades, the earnings of restaurant company executives have risen considerably. According to a 1997 survey in Nation's Restaurant News, the average corporate executive bonus was $131,000, an increase of 20 percent over the previous year. Increasing the federal minimum wage by a dollar would add about two cents to the cost of a fast food hamburger.

In 1938, at the height of the Great Depression, Congress passed legislation to prevent employers from exploiting the nation's most vulnerable workers. The Fair Labor Standards Act established the first federal minimum wage. It also imposed limitations on child labor. And it mandated that employees who work more than forty hours a week be paid overtime wages for each additional hour. The overtime wage was set at a minimum of one and a half times the regular wage.

Today few employees in the fast food industry qualify for overtime — and even fewer are paid it. Roughly 90 percent of the nation's fast food workers are paid an hourly wage, provided no benefits, and scheduled to work only as needed. Crew members are employed "at will." If the restaurant's busy, they're kept longer than usual. If business is slow, they're sent home early. Managers try to make sure that each worker is employed less than forty hours a week, thereby avoiding any overtime payments. A typical McDonald's or Burger King restaurant has about fifty crew members. They work an average of thirty hours a week. By hiring a large number of crew members for each restaurant, sending them home as soon as possible, and employing them for fewer than forty hours a week whenever possible, the chains keep their labor costs to a bare minimum.

A handful of fast food workers are paid regular salaries. A fast food restaurant that employs fifty crew members has four or five managers and assistant managers. They earn about $23,000 a year and usually receive medical benefits, as well as some form of bonus or profit sharing. They have an opportunity to rise up the corporate ladder. But they also work long hours without overtime — fifty, sixty, seventy hours a week. The turnover rate among assistant managers is extremely high. The job offers little opportunity for independent decision-making. Computer programs, training manuals, and the machines in the kitchen determine how just about everything must be done.

Fast food managers do have the power to hire, fire, and schedule workers. Much of their time is spent motivating their crew members. In the absence of good wages and secure employment, the chains try to inculcate "team spirit" in their young crews. Workers who fail to work hard, who arrive late, or who are reluctant to stay extra hours are made to feel that they're making life harder for everyone else, letting their friends and coworkers down. For years the McDonald's Corporation has provided its managers with training in "transactional analysis," a set of psychological techniques popularized in the book I'm OK — You're OK (1969). One of these techniques is called "stroking" — a form of positive reinforcement, deliberate praise, and recognition that many teenagers don't get at home. Stroking can make a worker feel that his or her contribution is sincerely valued. And it's much less expensive than raising wages or paying overtime.

The fast food chains often reward managers who keep their labor costs low, a practice that often leads to abuses. In 1997 a jury in Washington State found that Taco Bell had systematically coerced its crew members into working off the clock in order to avoid paying them overtime. The bonuses of Taco Bell restaurant managers were tied to their success at cutting labor costs. The managers had devised a number of creative ways to do so. Workers were forced to wait until things got busy at a restaurant before officially starting their shifts. They were forced to work without pay after their shifts ended. They were forced to clean restaurants on their own time. And they were sometimes compensated with food, not wages. Many of the workers involved were minors and recent immigrants. Before the penalty phase of the Washington lawsuit, the two sides reached a settlement; Taco Bell agreed to pay millions of dollars in back wages, but admitted no wrongdoing. As many as 16,000 current and former employees were owed money by the company. One employee, a high school dropout named Regina Jones, regularly worked seventy to eighty hours a week but was paid for only forty. Lawsuits involving similar charges against Taco Bell are now pending in Oregon and California.

detecting lies

AFTER WORKING AT Burger King restaurants for about a year, the sociologist Ester Reiter concluded that the trait most valued in fast food workers is "obedience." In other mass production industries ruled by the assembly line, labor unions have gained workers higher wages, formal grievance procedures, and a voice in how the work is performed. The high turnover rates at fast food restaurants, the part-time nature of the jobs, and the marginal social status of the crew members have made it difficult to organize their workers. And the fast food chains have fought against unions with the same zeal they've displayed fighting hikes in the minimum wage.

The McDonald's Corporation insists that its franchise operators follow directives on food preparation, purchasing, store design, and countless other minute details. Company specifications cover everything from the size of the pickle slices to the circumference of the paper cups. When it comes to wage rates, however, the company is remarkably silent and laissez-faire. This policy allows operators to set their wages according to local labor markets — and it absolves the McDonald's Corporation of any formal responsibility for roughly three-quarters of the company's workforce. McDonald's decentralized hiring practices have helped thwart efforts to organize the company's workers. But whenever a union gains support at a particular restaurant, the McDonald's Corporation suddenly shows tremendous interest in the emotional and financial well-being of the workers there.

During the late 1960s and early 1970s, McDonald's workers across the country attempted to join unions. In response the company developed sophisticated methods for keeping unions out of its restaurants. A "flying squad" of experienced managers and corporate executives was sent to a restaurant the moment union activity was suspected. Seemingly informal "rap sessions" were held with disgruntled employees. The workers were encouraged to share their feelings. They were flattered and stroked. And more importantly, they were encouraged to share information about the union's plans and the names of union sympathizers. If the rap sessions failed to provide adequate information, the stroking was abandoned for a more direct approach.

In 1973, amid a bitter organizing drive in San Francisco, a group of young McDonald's employees claimed that managers had forced them to take lie detector tests, interrogated them about union activities, and threatened them with dismissal if they refused to answer. Spokesmen for McDonald's admitted that polygraph tests had been administered, but denied that any coercion was involved. Bryan Seale, San Francisco's labor commissioner, closely studied some of McDonald's old job applications and found a revealing paragraph in small print near the bottom. It said that employees who wouldn't submit to lie detector tests could face dismissal. The labor commissioner ordered McDonald's to halt the practice, which was a violation of state law. He also ordered the company to stop accepting tips at its restaurants, since customers were being misled: the tips being left for crew members were actually being kept by the company.

The San Francisco union drive failed, as did every other McDonald's union drive — with one exception. Workers at a McDonald's in Mason City, Iowa, voted to join the United Food and Commercial Workers union in 1971. The union lasted just four years. The McDonald's Corporation no longer asks crew members to take lie detector tests and advises its franchisees to obey local labor laws. Nevertheless, top McDonald's executives still travel from Oak Brook, Illinois, to the site of a suspected union drive, even when the restaurant is overseas. Rap sessions and high-priced attorneys have proved to be effective tools for ending labor disputes. The company's guidance has

Helped McDonald's franchisees defeat literally hundreds of efforts to unionize.

Despite more than three decades of failure, every now and then another group of teenagers tries to unionize a McDonald's. In February of

1997 workers at a McDonald's restaurant in St. Hubert, a suburb of Montreal, applied to join the Teamsters union. More than three-quarters of the crew members signed union cards, hoping to create the only unionized McDonald's in North America. Tom and Mike Cappelli, the operators of the restaurant, employed fifteen attorneys — roughly one lawyer for every four crew members — and filed a series of legal motions to stall the union certification process. Union leaders argued that any delay would serve McDonald's interests, because turnover in the restaurant's workforce would allow the Cappellis to hire anti-union employees. After a year of litigation, a majority of the McDonald's workers still supported the Teamsters. The Quebec labor commissioner scheduled a final certification hearing for the union on March 10, 1998.

Tom and Mike Cappelli closed the St. Hubert McDonald's on February 12, just weeks before the union was certified. Workers were given notice on a Thursday; the McDonald's shut down for good the following day, Friday the thirteenth. Local union officials were outraged. Clement Godbout, head of the Quebec Federation of Labour, accused the McDonald's Corporation of shutting down the restaurant in order to send an unmistakable warning to its other workers in Canada. Godbout called McDonald's "one of the most anti-union companies on the planet." The McDonald's Corporation denied that it had anything to do with the decision. Tom and Mike Cappelli claimed that the St. Hubert restaurant was a money-loser, though it had operated continuously at the same location for seventeen years.McDonald's has roughly a thousand restaurants in Canada. The odds against a McDonald's restaurant in Canada going out of business — based on the chain's failure rate since the early 1990s — is about 300 to 1. "Did somebody say McUnion?" a Canadian editorial later asked. "Not if they want to keep their McJob."

This was not the first time that a McDonald's restaurant suddenly closed in the middle of a union drive. During the early 1970s, workers were successfully organizing a McDonald's in Lansing, Michigan. All the crew members were fired, the restaurant was shut down, a new McDonald's was built down the block — and the workers who'd signed union cards were not rehired. Such tactics have proven remarkably successful. As of this writing, none of the workers at the roughly fifteen thousand McDonald's in North America is represented by a union.

protecting youth

ALMOST EVERY FAST FOOD restaurant in Colorado Springs has a banner or sign that says "Now Hiring." The fast food chains have become victims of their own success, as one business after another tries to poach their teenage workers. Teenagers now sit behind the front desk at hotels, make calls for telemarketers, sell running shoes at the mall. The low unemployment rate in Colorado Springs has made the task of finding inexpensive workers even more difficult. Meanwhile, the competition among fast food restaurants has increased. Chains that have competed in the city for years keep opening new outlets, while others are entering the market for the first time. Carl's Jr. has come to Colorado Springs, opening stand-alone restaurants and "co-branded" outlets inside Texaco gas stations. When a fast food restaurant goes out of business, a new one often opens at the same location, like an army that's seized the outpost of a conquered foe. Instead of a new flag being raised, a big new plastic sign goes up.

Local fast food franchisees have little ability to reduce their fixed costs: their lease payments, franchise fees, and purchases from company- approved suppliers. Franchisees do, however, have some control over wage rates and try to keep them as low as possible. The labor structure of the fast food industry demands a steady supply of young and unskilled workers. But the immediate needs of the chains and the long-term needs of teenagers are fundamentally at odds.

At Cheyenne Mountain High School, set in the foothills, with a grand view of the city, few of the students work at fast food restaurants. Most of them are white and upper-middle class. During the summers, the boys often work as golf caddies or swimming pool lifeguards. The girls often work as babysitters at the Broadmoor. When Cheyenne Mountain kids work during the school year, they tend to find jobs at the mall, the girls employed at clothing stores like the Gap or the Limited, the boys at sporting goods stores like the Athlete's Foot. These jobs provide discounts on merchandise and a chance to visit with school friends who are out shopping. The pay of a job is often less important than its social status. Working as a hostess at an upscale chain restaurant like Carriba's, T.G.I. Friday's, or the Outback Steakhouse is considered a desirable job, even if it pays minimum wage. Working at a fast food restaurant is considered bottom of the heap.

Jane Trogdon is head of the guidance department at Harrison High School in Colorado Springs. Harrison has the reputation of being a "rough" school, a "gang" school. The rap is not entirely deserved; it may have stuck because Harrison is where many of the city's poorest teenagers go to school. Harrison is where you will find an abundance of fast food workers. About 60 percent of the students come from low- income families. In a town with a relatively low minority population, only 40 percent of the students at Harrison are white. The school occupies a clean, modern building on the south side of town, right next to 1–25. From some of the classroom windows, you can see the cars zooming past. On the other side of the interstate, a new multiplex theater with twenty-four screens beckons students to cut class.

Teachers often don't want to teach at Harrison, and some don't last there for long. Jane Trogdon has worked at the school since the day it opened in 1967. Over the past three decades, Trogdon has observed tremendous changes in the student body. Harrison was always the school on the wrong side of the tracks, but the kids today seem poorer than ever. It used to be, even in many low-income families, that the father worked and the mother stayed home to raise the children. Now it seems that no one's home and that both parents work just to make ends meet, often holding down two or three jobs. Many of the kids at Harrison are on their own from an early age. Parents increasingly turn to the school for help, asking teachers to supply discipline and direction. The teachers do their best, despite a lot of disrespect from students and the occasional threat of violence. Trogdon worries about the number of kids at Harrison who leave school in the afternoon and go straight to work, mainly at fast food restaurants. She also worries about the number of hours they're working.

Although some students at Harrison work at fast food restaurants to help their families, most of the kids take jobs after school in order to have a car. In the suburban sprawl of Colorado Springs, having your own car seems like a necessity. Car payments and insurance easily come to $300 a month. As more and more kids work to get their own wheels, fewer participate in after-school sports and activities. They stay at their jobs late into the night, neglect their homework, and come to school exhausted. In Colorado, kids can drop out of school at the age of sixteen. Dropping out often seems tempting to sophomores who are working in the "real world," earning money, being eagerly recruited by local fast food chains, retail chains, and telemarketers. Thirty years ago, businesses didn't pursue teenage workers so aggressively. Harrison usually has about four hundred students in its freshman class. About half of them eventually graduate; perhaps fifty go to college.

When Trogdon first came to work at Harrison, the Vietnam War was at its peak, and angry battles raged between long-haired students and kids whose fathers were in the military. Today she senses a profound apathy at the school. The turmoil of an earlier era has been replaced by a sad and rootless anomie. "I have lots and lots of kids who are terribly depressed," Trogdon says. "I've never seen so many, so young, feel this way."

Trogdon's insights about teenagers and after-school jobs are supported by Protecting Youth at Work, a report on child labor published by the National Academy of Sciences in 1998. It concluded that the long hours many American teenagers now spend on the job pose a great risk to their future educational and financial success. Numerous studies have found that kids who work up to twenty hours a week during the school year generally benefit from the experience, gaining an increased sense of personal responsibility and self-esteem. But kids who work more than that are far more likely to cut classes and drop out of high school. Teenage boys who work longer hours are much more likely to develop substance abuse problems and commit petty crimes. The negative effects of working too many hours are easy to explain: when kids go to work, they are neither at home nor at school. If the job is boring, overly regimented, or meaningless, it can create a lifelong aversion to work. All of these trends are most pronounced among poor and disadvantaged teenagers. While stressing the great benefits of work in moderation, the National Academy of Sciences report warned that short-term considerations are now limiting what millions of American kids can ever hope to achieve.

Elisa Zamot is a junior at Harrison High. In addition to working at McDonald's on the weekends, she also works there two days a week after school. Altogether, she spends about thirty to thirty-five hours a week at the restaurant. She earns the minimum wage. Her parents, Carlos and Cynthia, are loving but strict. They're Puerto Rican and moved to Colorado Springs from Lakewood, New Jersey. They make sure Elisa does all her homework and impose a midnight curfew.

Elisa's usually too tired to stay out late, anyway. Her school bus arrives at six in the morning, and classes start at seven.

Elisa had wanted to work at McDonald's ever since she was a toddler —a feeling shared by many of the McDonald's workers I met in Colorado Springs. But now she hates the job and is desperate to quit. Working at the counter, she constantly has to deal with rude remarks and complaints. Many of the customers look down on fast food workers and feel entitled to treat them with disrespect. Sweet-faced Elisa is often yelled at by strangers angry that their food's taking too long or that something is wrong with their order. One elderly woman threw a hamburger at her because there was mustard on it. Elisa hopes to find her next job at a Wal-Mart, at a clothing store, anywhere but a fast food restaurant. A good friend of hers works at FutureCall, the largest telemarketer in Colorado Springs and a big recruiter of teenaged labor. Her friend works there about forty hours a week, on top of attending Harrison High. The pay is terrific, but the job sounds miserable. The sort of workplace regimentation that the fast food chains pioneered has been taken to new extremes by America's telemarketers.

"IT'S TIME FOR BRINGING IN THE GREEN!" a FutureCall recruiting ad says: "Lots O' Green!" The advertisement promises wages of $10 to $15 an hour for employees who work more than forty hours a week. Elisa's friend is sixteen. After school, she stays at the FutureCall building on North Academy Boulevard until ten o'clock at night, staring at a computer screen. The computer automatically dials people throughout the United States. When somebody picks up the phone, his or her name flashes on the screen, along with the sales pitch that FutureCall's "teleservice representative" (TSR) is supposed to make on behalf of well-known credit card companies, phone companies, and retailers. TSRs are instructed never to let someone refuse a sales pitch without being challenged. The computer screen offers a variety of potential "rebuttals." TSRs make about fifteen "presentations" an hour, going for a sale, throwing out one rebuttal after another to avoid being shot down. About nine out of ten people decline the offer, but the one person who says yes makes the whole enterprise quite profitable. Supervisors walk up and down the rows, past hundreds of identical cubicles, giving pep talks, eavesdropping on phone calls, suggesting rebuttals, and making sure none of the teenage workers is doing homework on the job. The workplace at FutureCall is even more rigorously controlled than the one at McDonald's.

After graduating from Harrison, Elisa hopes to go to Princeton.

She's saving most of her earnings to buy a car. The rest is spent on clothes, shoes, and school lunches. A lot of kids at Harrison don't save any of the money earned at their fast food jobs. They buy beepers, cellular phones, stereos, and designer clothes. Kids are wearing Tommy Hilfiger and FUBU at Harrison right now; Calvin Klein is out. Hip-hop culture reigns, the West Coast brand, filtered through Compton and L.A.

During my interviews with local high school kids, I heard numerous stories of fifteen-year-olds working twelve-hour shifts at fast food restaurants and sophomores working long past midnight. The Fair Labor Standards Act prohibits the employment of kids under the age of sixteen for more than three hours on a school day, or later than seven o'clock at night. Colorado state law prohibits the employment of kids under the age of eighteen for more than eight hours a day and also prohibits their employment at jobs involving hazardous machinery. According to the workers I met, violations of these state and federal labor laws are now fairly commonplace in the fast food restaurants of Colorado Springs. George, a former Taco Bell employee, told me that he sometimes helped close the restaurant, staying there until two or three in the morning. He was sixteen at the time. Robbie, a sixteen-year-old Burger King employee, said he routinely worked ten-hour shifts. And Tommy, a seventeen-year-old who works at McDonald's, bragged about his skill with the electric tomato dicer, a machine that should have been off-limits. "I'm like an expert at using the damn thing," he said, "'cause I'm the only one that knows how to work it." He also uses the deep fryer, another labor code violation. None of these teenagers had been forced to break the law; on the contrary, they seemed eager to do it.

Most of the high school students I met liked working at fast food restaurants. They complained that the work was boring and monotonous, but enjoyed earning money, getting away from school and parents, hanging out with friends at work, and goofing off as much as possible. Few of the kids liked working the counter or dealing with customers. They much preferred working in the kitchen, where they could talk to friends and fool around. Food fights were popular. At one Taco Bell, new employees, *departing* employees, and employees who were merely disliked became targets for the sour cream and guacamole guns. "This kid, Leo, he smelled like guacamole for a month," one of the attackers later bragged.

The personality of a fast food restaurant's manager largely determined whether working there would be an enjoyable experience or an unpleasant one. Good managers created a sense of pride in the work and an upbeat atmosphere. They allowed scheduling changes and encouraged kids to do their schoolwork. Others behaved arbitrarily, picked on workers, yelled at workers, and made unreasonable demands. They were personally responsible for high rates of turnover. An assistant manager at a McDonald's in Colorado Springs always brought her five-year-old daughter to the restaurant and expected crew members to baby-sit for her. The assistant manager was a single mother. One crew member whom I met loved to look after the little girl; another resented it; and both found it hard to watch the child playing for hours amid the busy kitchen, the counter staff, the customers at their tables, and the life-size statue of Ronald McDonald.

None of the fast food workers I met in Colorado Springs spoke of organizing a union. The thought has probably never occurred to them. When these kids don't like the working conditions or the manager, they quit. Then they find a job at another restaurant, and the cycle goes on and on.

inside jobs

THE INJURY RATE OF teenage workers in the United States is about twice as high as that of adult workers. Teenagers are far more likely to be untrained, and every year, about 200,000 are injured on the job. The most common workplace injuries at fast food restaurants are slips, falls, strains, and burns. The fast food industry's expansion, however, coincided with a rising incidence of workplace violence in the United States. Roughly four or five fast food workers are now murdered on the job every month, usually during the course of a robbery. Although most fast food robberies end without bloodshed, the level of violent crime in the industry is surprisingly high. In 1998, more restaurant workers were murdered on the job in the United States than police officers.

America's fast food restaurants are now more attractive to armed robbers than convenience stores, gas stations, or banks. Other retail businesses increasingly rely upon credit card transactions, but fast food restaurants still do almost all of their business in cash. While convenience store chains have worked hard to reduce the amount of money in the till (at 7-Eleven stores the average robbery results in a loss of about thirty-seven dollars), fast food restaurants often have thousands of dollars on the premises. Gas stations and banks now routinely shield employees behind bullet-resistant barriers, a security measure that would be impractical at most fast food restaurants. And the same features that make these restaurants so convenient — their location near intersections and highway off-ramps, even their drive-through windows — facilitate a speedy getaway. A fast food robbery is most likely to occur when only a few crew members are present: early in the morning before customers arrive or late at night near closing time. A couple of sixteen-year-old crew members and a twenty-year-old assistant manager are often the only people locking up a restaurant, long after midnight. When a robbery takes place, the crew members are frequently herded into the basement freezer. The robbers empty the cash registers and the safe, then hit the road.

The same demographic groups widely employed at fast food restaurants — the young and the poor — are also responsible for much of the nation's violent crime. According to industry studies, about two-thirds of the robberies at fast food restaurants involve current or former employees. The combination of low pay, high turnover, and ample cash in the restaurant often leads to crime. A 1999 survey by the National Food Service Security Council, a group funded by the large chains, found that about half of all restaurant workers engaged in some form of cash or property theft — not including the theft of food. The typical employee stole about $218 a year; new employees stole almost $100 more. Studies conducted by Jerald Greenberg, a professor of management at the University of Ohio and an expert on workplace crime, have found that when people are treated with dignity and respect, they're less likely to steal from their employer. "It may be common sense," Greenberg says, "but it's obviously not common practice." The same anger that causes most petty theft, the same desire to strike back at an employer perceived as unfair, can escalate to armed robbery. Restaurant managers are usually, but not always, the victims of fast food crimes. Not long ago, the day manager of a Mc-Donald's in Moorpark, California, recognized the masked gunman emptying the safe. It was the night manager.

The Occupational Safety and Health Administration (OSHA) attempted in the mid-1990s to issue guidelines for preventing violence at restaurants and stores that do business at night. OSHA was prompted, among other things, by the fact that homicide had become the leading cause of workplace fatalities among women. The proposed guidelines were entirely voluntary and seemed innocuous. OSHA recommended, for example, that late-night retailers improve visibility within their stores and make sure their parking lots were well lit. The National Restaurant Association, along with other industry groups, responded by enlisting more than one hundred congressmen to oppose any OSHA guidelines on retail violence. An investigation by the Los Angeles Times found that many of the congressmen had recently accepted donations from the NRA and the National Association of Convenience Stores. "Who would oppose putting out guidelines on saving women's lives in the workplace?" Joseph Dear, a former head of OSHA, said to a Times reporter. "The companies that employ those women."

The restaurant industry has continued to fight not only guidelines on workplace violence, but any enforcement of OSHA regulations. At a 1997 restaurant industry "summit" on violence, executives representing the major chains argued that OSHA guidelines could be used by plaintiffs in lawsuits stemming from a crime, that guidelines were completely unnecessary, and that there was no need to supply the government with "potentially damaging" robbery statistics. The group concluded that OSHA should become just an information clearinghouse without the authority to impose fines or compel security measures. For years, one of OSHA's most severe critics in Congress has been Jay Dickey, an Arkansas Republican who once owned two Taco Bells. In January of 1999 the National Council of Chain Restaurants helped to form a new organization to lobby against OSHA regulations. The name of the industry group is the "Alliance for Workplace Safety."

The leading fast food chains have tried to reduce violent crime by spending millions on new security measures — video cameras, panic buttons, drop-safes, burglar alarms, additional lighting. But even the most heavily guarded fast food restaurants remain vulnerable. In April of 2000 a Burger King on the grounds of Offut Air Force Base in Nebraska was robbed by two men in ski masks carrying shotguns. They were wearing purple Burger King shirts and got away with more than $7,000. Joseph A. Kinney, the president of the National Safe Workplace Institute, argues that the fast food industry needs to make fundamental changes in its labor relations. Raising wages and making a real commitment to workers will do more to cut crime than investing in hidden cameras. "No other American industry," Kinney notes, "is robbed so frequently by its own employees."

Few of the young fast food workers I met in Colorado Springs were aware that working early in the morning or late at night placed them in some danger. Jose, on the other hand, had no illusions. He was a nineteen-year-old assistant manager with a sly, mischievous look. Before going to work at McDonald's, Jose had been a drug courier and a drug dealer in another state. He'd witnessed the murder of close friends. Many of his relatives were in prison for drug-related and violent crimes. Jose had left all that behind; his job at McDonald's was part of a new life; and he liked being an assistant manager because the work didn't seem hard. He was not, however, going to rely on McDonald's for his personal safety. He said that video cameras weren't installed at his restaurant until the Teeny Beanie Babies arrived. "Man, people really want to rip those things off," he said. "You've got to keep your eye on them." Jose often counts the money and closes the restaurant late at night. He always brings an illegal handgun to work, and a couple of his employees carry handguns, too. He's not afraid of what might happen if an armed robber walks in the door one night. "Ain't nothing that he could do to me," Jose said, matter-of-factly, "that I couldn't do to him."

The May 2000 murder of five Wendy's employees during a robbery in Queens, New York, received a great deal of media attention. The killings were gruesome, one of the murderers had previously worked at the restaurant, and the case unfolded in the media capital of the nation. But crime and fast food have become so ubiquitous in American society that their frequent combination usually goes unnoticed. Just a few weeks before the Wendy's massacre in Queens, two former Wendy's employees in South Bend, Indiana, received prison terms for murdering a pair of coworkers during a robbery that netted $1,400. Earlier in the year two former Wendy's employees in Anchorage, Alaska, were charged with the murder of their night manager during a robbery. Hundreds of fast food restaurants are robbed every week. The FBI does not compile nationwide statistics on restaurant robberies, and the restaurant industry will not disclose them. Local newspaper accounts, however, give a sense of these crimes.

In recent years: Armed robbers struck nineteen McDonald's and Burger King restaurants along Interstate 85 in Virginia and North Carolina. A former cook at a Shoney's in Nashville, Tennessee, became a fast food serial killer, murdering two workers at a Captain D's, three workers at a McDonald's, and a pair of Baskin Robbins workers whose bodies were later found in a state park. A dean at Texas Southern University was shot and killed during a carjacking in the drive-through lane of a KFC in Houston. The manager of a Wal-Mart McDonald's in Durham, North Carolina, was shot during a robbery by two masked assailants. A nine-year-old girl was killed during a shootout between a robber and an off-duty police officer waiting in line at a McDonald's in Barstow, California. A twenty-year-old manager was killed during an armed robbery at a Sacramento, California, McDonald's; the manager had recognized one of the armed robbers, a former McDonald's employee; it was the manager's first day in the job. A former employee at a McDonald's in Vallejo, California, shot three women who worked at the restaurant after being rejected for a new job; one of the women was killed, and the murderer left the restaurant laughing. And in Colorado Springs, a jury convicted a former employee of first degree murder for the execution-style slayings of three teenage workers and a female manager at a Chuck E. Cheese's restaurant. The killings took place in Aurora, Colorado, at closing time, and police later arrived to find a macabre scene. The bodies lay in an empty restaurant as burglar alarms rang, game lights flashed, a vacuum cleaner ran, and Chuck E. Cheese mechanical animals continued to perform children's songs.

making it fun

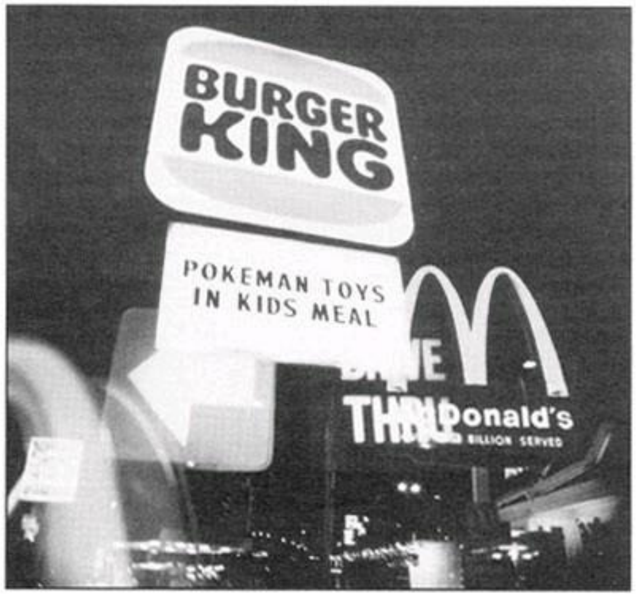
AT THE THIRTY – EIGHTH Annual Multi-Unit Foodserver Operators Conference held a few years ago in Los Angeles, the theme was "People: The Single Point of Difference." Most of the fourteen hundred attendees were chain restaurant operators and executives. The ballroom at the Century Plaza Hotel was filled with men and women in expensive suits, a well-to-do group whose members looked as though they hadn't grilled a burger or mopped a floor in a while. The conference workshops had names like "Dual Branding: Case Studies from the Field" and "Segment Marketing: The Right Message for the Right Market" and "In Line and on Target: The Changing Dimensions of Site Selection." Awards were given for the best radio and television ads. Restaurants were inducted into the Fine Dining Hall of Fame. Chains competed to be named Operator of the Year. Foodservice companies filled a nearby exhibition space with their latest products:

dips, toppings, condiments, high-tech ovens, the latest in pest control. The leading topic of conversation at the scheduled workshops, in the hallways and hotel bars, was how to find inexpensive workers in an American economy where unemployment had fallen to a twenty-four-year low.

James C. Doherty, the publisher of Nation's Restaurant News at the time, gave a speech urging the restaurant industry to move away from relying on a low-wage workforce with high levels of turnover and to promote instead the kind of labor policies that would create long-term careers in foodservice. How can workers look to this industry for a career, he asked, when it pays them the minimum wage and provides them no health benefits? Doherty's suggestions received polite applause.

The keynote speech was given by David Novak, the president of Tricon Global Restaurants. His company operates more restaurants than any other company in the world — 30,000 Pizza Huts, Taco Bells, and KFCs. A former advertising executive with a boyish face and the earnest delivery style of a motivational speaker, Novak charmed the crowd. He talked about the sort of recognition his company tried to give its employees, the pep talks, the prizes, the special awards of plastic chili peppers and rubber chickens. He believed the best way to motivate people is to have fun. "Cynics need to be in some other industry," he said. Employee awards created a sense of pride and esteem, they showed that management was watching, and they did not cost a lot of money. "We want to be a great company for the people who make it great," Novak announced. Other speakers talked about teamwork, empowering workers, and making it "fun."

During the President's Panel, the real sentiments of the assembled restaurant operators and executives became clear. Norman Brinker — a legend in the industry, the founder of Bennigan's and Steak and Ale, the current owner of Chili's, a major donor to the Republican Party — spoke to the conference in language that was simple, direct, and free of platitudes. "I see the possibility of unions," he warned. The thought "chilled" him. He asked everyone in the audience to give more money to the industry's key lobbying groups. "And [Senator] Kennedy's pushing hard on a $7.25 minimum wage," he continued. "That'll be fun, won't it? I love the idea of that. I sure do — strike me dead!" As the crowd laughed and roared and applauded Brinker's call to arms against unions and the government, the talk about teamwork fell into the proper perspective.


BURGER
KING
POKEMAN TOYS
IN KIDS MEAL
BILLION SERVED

4/success

MATTHEW KABONG glides his '83 Buick LeSabre through the streets of Pueblo, Colorado, at night, looking for a trailer park called Meadowbrook. Two Little Caesars pizzas and a bag of Crazy Bread sit in the back seat. "Welcome to my office," he says, reaching down, turning up the radio, playing some mellow rhythm and blues. Kabong was born in Nigeria and raised in Atlanta, Georgia. He studies electrical engineering at a local college, hopes to own a Radio Shack someday, and delivers pizzas for Little Caesars four or five nights a week. He earns the minimum wage, plus a dollar for each delivery, plus tips. On a good night he makes about fifty bucks. We cruise past block after block of humble little houses, whitewashed and stucco, built decades ago, with pickup trucks in the driveways and children's toys on the lawns. Pueblo is the southernmost city along the Front Range, forty miles from Colorado Springs, but for generations a world apart, largely working class and Latino, a town with steel mills that was never hip like Boulder, bustling like Denver, or aristocratic like Colorado Springs. Nobody ever built a polo field in Pueblo, and snobs up north still call it "the asshole of Colorado."

We turn a corner and find Meadowbrook. All the trailers look the same, slightly ragged around the edges, lined up in neat rows. Kabong parks the car, and when the radio and the headlights shut off, the street suddenly feels empty and dark. Then somewhere a dog barks, the door of a nearby trailer opens, and light spills onto the gravel driveway. A little white girl with blonde hair, about seven years old, smiles at this big Nigerian bringing pizza, hands him fifteen dollars, takes the food, and tells him to keep the change. Behind her there's movement in the trailer, a brief glimpse of someone else's life, a tidy kitchen, the flickering shadows of a TV. The door closes, and Kabong heads back to the Buick, his office, beneath a huge sky full of stars. He has a $1.76 tip in his pocket, the biggest tip so far tonight.

The wide gulf between Colorado Springs and Pueblo — a long-standing social, cultural, political, and economic division — is starting to narrow. As you drive through the streets of Pueblo, you can feel the change coming, something palpable in the air. During the 1980s, the city's unemployment rate hovered at about 12 percent, and not much was built. New things now seem to appear every month, new roads around the Pueblo Mall, new movie theaters, a new Applebee's, an Olive Garden, a Home Depot, a great big Marriott. Subdivisions are creeping south from Colorado Springs along 1–25, turning cattle ranches into street after street of ranch-style homes. Pueblo has not boomed yet; it seems ready, right on the verge, about to become more like the rest.

The Little Caesars where Kabong works is in the Belmont section of town, across the street from a Dunkin' Donuts, not far from the University of Southern Colorado campus. The small square building the Little Caesars occupies used to house a Godfather's Pizza and before that, a Dairy Bar. The restaurant has half a dozen brown Formica tables, red brick walls, a gumball machine near the counter, white-and- brown flecked linoleum floors. The place is clean but has not been redecorated for a while. The customers who drop by or call for pizza are college students, ordinary working people, people with large families, and the poor. Little Caesars pizzas are big and inexpensive, often providing enough food for more than one meal.

Five crew members work in the kitchen, putting toppings on pizzas, putting the pizzas in the oven, getting drinks, taking orders over the phone. Julio, a nineteen-year-old kid with two kids of his own, slides a pizza off the old Blodgett oven's conveyer belt. He makes $6.50 an hour. He enjoys making pizza. The ovens have been automated at Little Caesars and at the other pizza chains, but the pizzas are still handmade. They're not just pulled out of a freezer. Scott, another driver, waits for his next delivery. He wears a yellow Little Caesars shirt that says, "Think Big!" He's working here to pay off student loans and the $4,000 debt on his 1988 Jeep. He goes to the University of Southern Colorado and wants to attend law school, then join the FBI. Dave Feamster, the owner of the restaurant, is completely at ease behind the counter, hanging out with his Latino employees and customers — but at the same time seems completely out of place.

Feamster was born and raised in a working-class neighborhood of Detroit. He grew up playing in youth hockey leagues and later attended college in Colorado Springs on an athletic scholarship. He was an All-American during his senior year, a defenseman picked by the Chicago Black Hawks in the college draft. After graduating from Colorado College with a degree in business, Feamster played in the National Hockey League, a childhood dream come true. The Black Hawks reached the playoffs during his first three years on the team, and Feamster got to compete against some of his idols, against Wayne Gretzky and Mark Messier. Feamster was not a big star, but he loved the game, earned a good income, and traveled all over the country; not bad for a blue-collar kid from Detroit. On March 14, 1984, Feamster was struck from behind by Paul Holmgren during a game with the Minnesota North Stars. Feamster never saw the hit coming and slammed into the boards head first. He felt dazed, but played out the rest of the game. Later, in the shower, his back started to hurt. An x-ray revealed a stress fracture of a bone near the base of his spine. For the next three months Feamster wore a brace that extended from his chest to his waist. The cracked bone didn't heal. At practice sessions the following autumn, he didn't feel right. The Black Hawks wanted him to play, but a physician at the Mayo Clinic examined him and said, "If you were my son, I'd say, find another job; move on." Feamster worked out for hours at the gym every day, trying to strengthen his back. He lived with two other Black Hawk players. Every morning the three of them would eat breakfast together, then his friends would leave for practice, and Feamster would find himself just sitting there at the table.

The Black Hawks never gave him a good-bye handshake or wished him good luck. He wasn't even invited to the team Christmas party. They paid off the remainder of his contract, and that was it. He floundered for a year, feeling lost. He had a business degree, but had spent most of his time in college playing hockey. He didn't know anything about business. He enrolled in a course to become a travel agent. He was the only man in a classroom full of eighteen- and nineteen-year-old women. After three weeks, the teacher asked to see him after class.

He went to her office, and she said, "What are you doing here? You seem like a sharp guy. This isn't for you." He dropped out of travel agent school that day, then drove around aimlessly for hours, listening to Bruce Springsteen and wondering what the hell to do.

At a college reunion in Colorado Springs, an old friend suggested that Feamster become a Little Caesars franchisee. Feamster had played on youth hockey teams in Detroit with the sons of the company's founder, Mike Ilitch. He was too embarrassed to call the Ilitch family and ask for help. His friend dialed the phone. Within weeks, Feamster was washing dishes and making pizzas at Little Caesars restaurants in Chicago and Denver. It felt a long, long way from the NHL. Before gaining the chance to own a franchise, he had to spend months learning every aspect of the business. He was trained like any other assistant manager and earned $300 a week. At first he wondered if this was a good idea. The Little Caesars franchise fee was $15,000, almost all the money he had left in the bank.

devotion to a new faith

BECOMING A FRANCHISEE IS an odd combination of starting your own business and going to work for someone else. At the heart of a franchise agreement is the desire by two parties to make money while avoiding risk. The franchisor wants to expand an existing company without spending its own funds. The franchisee wants to start his or her own business without going it alone and risking everything on a new idea. One provides a brand name, a business plan, expertise, access to equipment and supplies. The other puts up the money and does the work. The relationship has its built-in tensions. The franchisor gives up some control by not wholly owning each operation; the franchisee sacrifices a great deal of independence by having to obey the company's rules. Everyone's happy when the profits are rolling in, but when things go wrong the arrangement often degenerates into a mismatched battle for power. The franchisor almost always wins.

Franchising schemes have been around in one form or another since the nineteenth century. In 1898 General Motors lacked the capital to hire salesmen for its new automobiles, so it sold franchises to prospective car dealers, giving them exclusive rights to certain territories. Franchising was an ingenious way to grow a new company in a new industry. "Instead of the company paying the salesmen," Stan Luxenberg, a franchise historian, explained, "the salesmen would pay the company." The automobile, soft drink, oil, and motel industries later relied upon franchising for much of their initial growth. But it was the fast food industry that turned franchising into a business model soon emulated by retail chains throughout the United States.

Franchising enabled the new fast food chains to expand rapidly by raising the hopes and using the money of small investors. Traditional methods of raising capital were not readily available to the founders of these chains, the high school dropouts and drive-in owners who lacked "proper" business credentials. Banks were not eager to invest in this new industry; nor was Wall Street. Dunkin' Donuts and Kentucky Fried Chicken were among the first chains to start selling franchises. But it was McDonald's that perfected new franchising techniques, increasing the chain's size while maintaining strict control of its products.

Ray Kroc's willingness to be patient, among other things, contributed to McDonald's success. Other chains demanded a large fee up front, sold off the rights to entire territories, and earned money by selling supplies directly to their franchises. Kroc wasn't driven by greed; the initial McDonald's franchising fee was only $950. He seemed much more interested in making a sale than in working out financial details, more eager to expand McDonald's than to make a quick buck. Indeed, during the late 1950s, McDonald's franchisees often earned more money than the company's founder.

After selling many of the first franchises to members of his country club, Kroc decided to recruit people who would operate their own restaurants, instead of wealthy businessmen who viewed McDonald's as just another investment. Like other charismatic leaders of new faiths, Kroc asked people to give up their former lives and devote themselves fully to McDonald's. To test the commitment of prospective franchisees, he frequently offered them a restaurant far from their homes and forbade them from engaging in other businesses. New franchisees had to start their lives anew with just one McDonald's restaurant. Those who contradicted or ignored Kroc's directives would

never get the chance to obtain a second McDonald's. Although Kroc could be dictatorial, he also listened carefully to his franchisees' ideas and complaints. Ronald McDonald, the Big Mac, the Egg McMuffin, and the Filet-O-Fish sandwich were all developed by local franchisees. Kroc was an inspiring, paternalistic figure who looked for people with "common sense," "guts and staying power," and "a love of hard work." Becoming a successful McDonald's franchisee, he noted, didn't require "any unusual aptitude or intellect." Most of all, Kroc wanted loyalty and utter devotion from his franchisees — and in return, he promised to make them rich.

While Kroc traveled the country, spreading the word about Mc-Donald's, selling new franchises, his business partner, Harry J. Sonneborn, devised an ingenious strategy to ensure the chain's financial success and provide even more control of its franchisees. Instead of earning money by demanding large royalties or selling supplies, the McDonald'S Corporation became the landlord for nearly all of its American franchisees. It obtained properties and leased them to franchisees with at least a 40 percent markup. Disobeying the McDonald's Corporation became tantamount to violating the terms of the lease, behavior that could lead to a franchisee's eviction. Additional rental fees were based on a restaurant's annual revenues. The new franchising strategy proved enormously profitable for the McDonald's Corporation. "We are not basically in the food business," Sonneborn once told a group of Wall Street investors, expressing an unsentimental view of McDonald's that Kroc never endorsed. "We are in the real estate business. The only reason we sell fifteen cent hamburgers is because they are the greatest producer of revenue from which our tenants can pay us our rent."

In the 1960s and 1970s McDonald's was much like the Microsoft of the 1990s, creating scores of new millionaires. During a rough period for the McDonald's Corporation, when money was still tight, Kroc paid his secretary with stock. June Martino's 10 percent stake in Mc- Donald's later allowed her to retire and live comfortably at an oceanfront Palm Beach estate. The wealth attained by Kroc's secretary vastly exceeded that of the McDonald brothers, who relinquished their claim to 0.5 percent of the chain's annual revenues in 1961. After taxes, the sale brought Richard and Mac McDonald about $1 million each. Had the brothers held on to their share of the company's revenues, instead of selling it to Ray Kroc, the income from it would have reached more than $180 million a year.

Kroc's relationship with the McDonalds had been stormy from the outset. He deeply resented the pair, claiming that while he was doing the hard work — "grinding it out, grunting and sweating like a galley slave" — they were at home, reaping the rewards. His original agreement with the McDonalds gave them a legal right to block any changes in the chain's operating system. Until 1961 the brothers retained ultimate authority over the restaurants which bore their name, a fact that galled Kroc. He had to borrow $2.7 million to buy out the

McDonalds; Sonneborn secured financing for the deal from a small group of institutional investors headed by Princeton University. As part of the buyout, the McDonald brothers insisted upon keeping their San Bernardino restaurant, birthplace of the chain. "Eventually I opened a McDonald's across the street from that store, which they had renamed The Big M," Kroc proudly noted in his memoir, "and it ran them out of business."

The enormous success of McDonald's spawned imitators not only in the fast food industry, but throughout America's retail economy. Franchising proved to be a profitable means of establishing new companies in everything from the auto parts business (Meineke Discount Mufflers) to the weight control business (Jenny Craig International). Some chains grew through franchised outlets; others through company- owned stores; and McDonald's eventually expanded through both. In the long run, the type of financing used to grow a company proved less crucial than other aspects of the McDonald's business model: the emphasis on simplicity and uniformity, the ability to replicate the same retail environment at many locations. In 1969, Donald and Doris Fisher decided to open a store in San Francisco that would sell blue jeans the way McDonald's, Burger King, and KFC sold food. They aimed at the youth market, choosing a name that would appeal to counterculture teens alienated by the "generation gap." Thirty years later, there were more than seventeen hundred company-owned Gap, GapKids, and babyGap stores in the United States. Among other innovations, Gap Inc. changed how children's clothing is marketed, adapting its adult fashions to fit toddlers and even infants.

As franchises and chain stores opened across the United States, driving along a retail strip became a shopping experience much like strolling down the aisle of a supermarket. Instead of pulling something off the shelf, you pulled into a driveway. The distinctive architecture of each chain became its packaging, as strictly protected by copyright law as the designs on a box of soap. The McDonald's Corporation led the way in the standardization of America's retail environments, rigorously controlling the appearance of its restaurants inside and out. During the late 1960s, McDonald's began to tear down the restaurants originally designed by Richard McDonald, the buildings with golden arches atop their slanted roofs. The new restaurants had brick walls and mansard roofs. Worried about how customers might react to the switch, the McDonald's Corporation hired Louis Cheskin — a prominent design consultant and psychologist to help ease the transition. He argued against completely eliminating the golden arches, claiming they had great Freudian importance in the subconscious mind of consumers. According to Cheskin, the golden arches resembled a pair of large breasts: "mother McDonald's breasts." It made little sense to lose the appeal of that universal, and yet somehow all-American, symbolism. The company followed Cheskin's advice and retained the golden arches, using them to form the M in McDonald's.

free enterprise with federal loans

TODAY IT COSTS ABOUT $1.5 million to become a franchisee at Burger King or Carl's Jr.; a McDonald's franchisee pays roughly one-third that amount to open a restaurant (since the company owns or holds the lease on the property). Gaining a franchise from a less famous chain — such as Augie's, Buddy's Bar-B-Q, Happy Joe's Pizza & Ice Cream Parlor, the Chicken Shack, Gumby Pizza, Hot Dog on a Stick, or Tippy's Taco House — can cost as little as $50,000. Franchisees often choose a large chain in order to feel secure; others prefer to invest in a smaller, newer outfit, hoping that chains like Buck's Pizza or K-Bob's Steakhouses will become the next McDonald's.

Advocates of franchising have long billed it as the safest way of going into business for yourself. The International Franchise Association (IFA), a trade group backed by the large chains, has for years released studies "proving" that franchisees fare better than independent businessmen. In 1998 an IFA survey claimed that 92 percent of all franchisees said they were "successful." The survey was based on a somewhat limited sample: franchisees who were still in business. Franchisees who'd gone bankrupt were never asked if they felt successful. Timothy Bates, a professor of economics at Wayne State University, believes that the IFA has vastly overstated the benefits of franchising. A study that Bates conducted for a federal loan agency found that within four to five years of opening, 38.1 percent of new franchised businesses had failed. The failure rate of new independent businesses during the same period was 6.2 percent lower. According to another study, three-quarters of the American companies that started selling franchises in 1983 had gone out of business by 1993. "In short," Bates argues, "the franchise route to self-employment is associated with higher business failure rates and lower profits than independent business ownership."

In recent years conflicts between franchisees and franchisors have become much more common. As the American market for fast food grows more saturated, restaurants belonging to the same chain are frequently being put closer to one another. Franchisees call the practice "encroachment" and angrily oppose it. Their sales go down when another outlet of the same chain opens nearby, drawing away customers. Most franchisors, on the other hand, earn the bulk of their profits from royalties based on total sales — and more restaurants usually mean more sales. In 1978 Congress passed the first federal legislation to regulate franchising. At the time, a few chains were operated much like pyramid schemes. They misrepresented potential risks, accepted large fees up front, and bilked millions of dollars from small investors. The FTC now requires chains to provide lengthy disclosure statements that spell out their rules for prospective franchisees. The statements are often a hundred pages long, with a lot of small print.

Federal law demands full disclosure prior to a sale, but does not regulate how franchises are run thereafter. Once a contract is signed, franchisees are largely on their own. Although franchisees must obey corporate directives, they are not covered by federal laws that protect employees. Although they must provide the investment capital for their businesses, they are not covered by the laws that protect independent businessmen. And although they must purchase all their own supplies, they are not covered by consumer protection laws. It is perfectly legal under federal law for a fast food chain to take kickbacks (known as "rebates") from its suppliers, to open a new restaurant next door to an existing franchisee, and to evict a franchisee without giving cause or paying any compensation.

According to Susan Kezios, president of the American Franchise Association, the contracts offered by fast food chains often require a franchisee to waive his or her legal right to file complaints under state law; to buy only from approved suppliers, regardless of the price; to sell the restaurant only to a buyer approved by the chain; and to accept termination of the contract, for any cause, at the discretion of the chain. When a contract is terminated, the franchisee can lose his or her entire investment. Franchisees are sometimes afraid to criticize their chains in public, fearing reprisals such as the denial of additional restaurants, the refusal to renew a franchise contract at the end of its twenty-year term, or the immediate termination of an existing contract. Ralston-Purina once terminated the contracts of 642 Jack in the Box franchisees, giving them just thirty days to move out. A group of

McDonald's franchisees, unhappy with the chain's encroachment on their territories, have formed an organization called Consortium Members, Inc. The group issues statements through Richard Adams, a former McDonald's franchisee, because its members are reluctant to disclose their names.

The fast food chains are periodically sued by franchisees who are upset about encroachment, about inflated prices charged by suppliers, about bankruptcies and terminations that seemed unfair. During the 1990s, Subway was involved in more legal disputes with franchisees than any other chain — more than Burger King, KFC, McDonald's, Pizza Hut, Taco Bell, and Wendy's combined. Dean Sager, a former staff economist for the U.S. House of Representatives' Small Business Committee, has called Subway the "worst" franchise in America. "Subway is the biggest problem in franchising," Sager told Fortune magazine in 1998, "and emerges as one of the key examples of every [franchise] abuse you can think of."

Subway was founded in 1965 by Frederick DeLuca, who borrowed $1,000 from a family friend to open a sandwich shop in Bridgeport, Connecticut. DeLuca was seventeen at the time. Today Subway has about fifteen thousand restaurants, second only to McDonald's, and opens about a thousand new ones every year. DeLuca is determined to build the world's largest fast food chain. Many of the complaints about Subway arise from its unusual system for recruiting new franchisees. The chain relies on "development agents" to sell new Subway franchises. The development agents are not paid a salary by Subway; they are technically independent contractors, salesmen whose income is largely dependent on the number of Subways that open in their territory. They receive half of the franchise fee paid by new recruits, plus one-third of the annual royalties, plus one-third of the "transfer fee" paid whenever a restaurant is resold. Agents who fail to meet their monthly sales quotas are sometimes forced to pay the company for their shortfall. They are under constant pressure to keep opening new Subways, regardless of how that affects the sales of Subways that are already operating nearby. According to a 1995 investigation by Canada's Financial Post, Subway's whole system seems "almost as geared to selling franchises as it is to selling sandwiches."

It costs about $100,000 to open a Subway restaurant, the lowest investment required by any of the major fast food chains. The annual royalty Subway takes from its franchisees — 8 percent of total revenues — is among the highest. A top Subway executive has acknowledged that perhaps 90 percent of the chain's new franchisees sign their contracts without reading them and without looking at the FTC filings. Roughly 30 to 50 percent of Subway's new franchisees are immigrants, many of whom are not fluent in English. In order to earn a decent living, they must often work sixty to seventy hours a week and buy more than one Subway.

In November of 1999, Congressman Howard Coble, a conservative Republican from North Carolina, introduced legislation that would make franchisors obey the same fundamental business principles as other American companies. Coble's bill would for the first time obligate franchise chains to act in "good faith," a basic tenet of the nation's Uniform Commercial Code. The bill would also place limits on encroachment, require "good cause" before a contract can be terminated, permit franchisees to form their own associations, allow them to purchase from a variety of suppliers, and give them the right to sue franchisors in federal court. "We are not seeking to penalize anyone," Coble said, before introducing his plan for franchise reform. "We only seek to bring some order and sanity to a segment of our economy which is growing and may be growing out of control." Iowa adopted similar franchise rules in 1992, without driving Burger King or McDonald's out of the state. Nevertheless, the IFA and the fast food chains strongly oppose Coble's bill. The IFA has hired Allen Coffey, Jr., the former general counsel of the House Judiciary Committee, and Andy Ireland, a former Republican congressman who was the ranking member of the House Small Business Committee, to help thwart greater federal regulation of franchising. While in Congress, Ireland had criticized franchisees who sought legal reforms, calling them "whiny butts" who came running to the government instead of taking responsibility for their own business mistakes.

After congressional hearings were held on Coble's bill in 1999, the IFA claimed in a press release that federal regulation of franchising would interfere with "free enterprise contract negotiations" and seriously harm one of the most vital and dynamic sectors of the American economy. "Small businesses and franchising succeed by relying on marketplace solutions," said Don DeBolt, the president of the IFA. Despite its public opposition to any government interference with the workings of the free market, the IFA has long supported programs that enable fast food chains to expand using government-backed loans.

For more than three decades the fast food industry has used the

Small Business Administration (SBA) to finance new restaurants — thereby turning a federal agency that was created to help independent, small businesses into one that eliminates them. A 1981 study by the General Accounting Office found that the SBA had guaranteed 18,000 franchise loans between 1967 and 1979, subsidizing the launch of new Burger Kings and McDonald's, among others. Ten percent of these franchise loans ended in default. During the same period, only 4 per-cents of the independent businesses receiving SBA loans defaulted. In New York City, the SBA backed thirteen loans to Burger King franchisees; eleven of them defaulted. The chain was "experimenting," according to a congressional investigation, using government-backed loans to open restaurants in marginal locations. Burger King did not lose money when these restaurants closed. American taxpayers had covered the franchise fees, paid for the buildings, real estate, equipment, and supplies.

According to a recent study by the Heritage Foundation, the SBA is still providing free investment capital to some of the nation's largest corporations. In 1996, the SBA guaranteed almost $1 billion in loans to new franchisees. More of those loans went to the fast food industry than to any other industry. Almost six hundred new fast food restaurants, representing fifty-two different national chains, were launched in 1996 thanks to government-backed loans. The chain that benefited the most from SBA loans was Subway. Of the 755 new Subways opened that year, 109 relied upon the U.S. government for financing.

the world beyond pueblo

THE FRANCHISE AGREEMENT THAT Dave Feamster signed in 1984 gave him the exclusive right to open Little Caesars restaurants in the Pueblo area. In addition to the franchise fee, he had to promise the company 5 percent of his annual revenues and contribute an additional 4 percent to an advertising pool. Most Little Caesars franchisees have to supply the capital for the purchase or construction of their own restaurants. Since Feamster did not have the money, the company gave him a loan. Before selling a single pizza, he was $200,000 in debt.

Although Feamster had spent four years in college at Colorado Springs, less than an hour away, he'd never visited Pueblo. He rented a small house near his new restaurant, on a block full of steelworkers. It was the sort of neighborhood where he'd grown up. Feamster expected to stay there for just a few months, but wound up living there alone for six years, pouring all his energy into his business. He opened the restaurant every morning and closed it at night, made pizzas, delivered pizzas, swept the floors, did whatever needed to be done. His lack of experience in the restaurant business was offset by his skill at getting along with all sorts of different people. When an elderly customer phoned him and complained about the quality of a pizza, Feamster listened patiently and then hired her to handle future customer complaints.

It took Feamster three years to pay off his initial debt. Today he owns five Little Caesars restaurants: four in Pueblo and one in the nearby town of Lamar. His annual revenues are about $2.5 million. He earns a good income, but lives modestly. When I visited a Colorado Springs restaurant operated by a rival pizza chain, the company flew in a publicist from New York City to accompany me at all times. Feamster gave me free rein to interview his employees in private and to poke around his business for as long as I liked. He says there's nothing to hide. His small office behind the Belmont store, however, is in an advanced state of disarray, crammed with stacks of sagging banker's boxes. While his competitors use highly computerized operating systems that instantaneously display a customer's order on TV monitors in the kitchen, Feamster's restaurants remain firmly planted in the era of ballpoint pens and yellow paper receipts.

Feamster has established strong roots in Pueblo. His wife is a schoolteacher, a fifth-generation native of the city. His community work occupies much of his time and doesn't seem driven by publicity needs. He donates money to local charities and gives speeches at local schools. He pays some of the college tuition of his regular employees, so long as they maintain a 3.0 grade average or higher. And he recently helped organize the city's first high school hockey team, which draws players from throughout the district. Feamster paid for uniforms and equipment, and he serves as an assistant coach. The majority of the players are Latino, from the sorts of backgrounds that do not have a long and illustrious tradition on the ice. The team regularly plays against high schools from Colorado Springs, which have well-established hockey programs. The Pueblo hockey team has made it to the playoffs in two of its first three seasons.

Despite all the hard work, the future success of Feamster's business is by no means guaranteed. Little Caesars is the nation's fourth-largest pizza chain, but has been losing market share since 1992. Hundreds of

Little Caesars restaurants have closed. Many of the chain's franchisees, unhappy with the company's management, have formed an independent association. Some franchisees have withheld their contributions to the chain's advertising pool. Feamster feels loyal to the Ilitch family and to the company that gave him a break, but worries about the reduced spending on ads. Even more worrying is the recent arrival of Papa John's in Pueblo. Papa John's is the fastest-growing pizza chain in the United States, adding about thirty new restaurants every month. In the fall of 1998, Papa John's opened its first unit in Pueblo, and the following year, it opened three more.

The fate of Dave Feamster's restaurants now depends on how his employees serve his customers at every meal. Rachel Vasquez, the manager of the Belmont Little Caesars, takes her job seriously and does her best to motivate crew members. She's worked for Feamster since 1988. She was sixteen at the time, and no one else would hire her. The following year she bought a car with her earnings. She now makes about $22,000 a year for a fifty-hour workweek. She also receives health insurance. And Feamster annually contributes a few thousand dollars to her pension fund. Rachel met her husband at this Little Caesars in 1991, when she was a co-manager and he was a trainee. "We made more than pizza," she says, laughing. Her husband's now employed as a clerk for an industrial supply company. They have two small children. A grandmother looks after the kids while Rachel is at work. At the back of the kitchen, inside a small storage closet, Rachel has a makeshift office. There's a black table, a chair, a battered filing cabinet, a list of employee phone numbers taped to a box, and a sign that says "Smile."

Fourteen of Feamster's employees meet at the Belmont store around seven o'clock on a Tuesday morning. Feamster has tickets to an event called "Success" at the McNichols Sports Arena in Denver. It starts at eight-fifteen in the morning, runs until six in the evening, and features a dozen guest speakers, including Henry Kissinger, Barbara Bush, and former British Prime Minister John Major. The event is being sponsored by a group called "Peter Lowe International, the Success Authority." The tickets cost Feamster $90 each. He's rented a van and given these employees the day off. He doesn't know exactly what to expect, but hopes to provide a day to remember. It seems like an opportunity not to be missed. Feamster wants his young workers to see "there's a world out there, a whole world beyond the south side of Pueblo."

The parking lot at the McNichols Arena is jammed. The event has been sold out for days. Men and women leave their cars and walk briskly toward the arena. There's a buzz of anticipation. Public figures of this stature don't appear in Denver every week. The arena is filled with eighteen thousand people, and almost every single one of them is white, clean-cut, and prosperous — though not as prosperous as they'd like. These people want more. They are salespeople, middle managers, franchisees. In the hallways and corridors where you'd normally buy hot dogs and Denver Nuggets hats, Peter Lowe's Success Yearbook is being sold for $19.95, "American Sales Leads on CD-Rom" is available for $375, and Zig Ziglar is offering "Secrets of Closing the Sale" (a twelve-tape collection) for $120 and "Everything of Zig's" (fifty-seven tapes, four books, and eleven videos) for the discount price of $995, thanks to "Special Day of Seminar Pricing."

Peter Lowe has been staging these large-scale events since 1991. He's a forty-two-year-old "success authority" based in Tampa, Florida. His parents were Anglican missionaries who gave up the material comforts of their middle-class life in Vancouver to work among the poor. Lowe was born in Pakistan and educated at the Woodstock School in Mussoorie, India, but he chose a different path. In 1984 he quit his job as a computer salesman and organized his first "success seminar." The appearance of Ronald Reagan at one of these events soon encouraged other celebrities to endorse Peter Lowe's work. In return, he pays them between $30,000 and $60,000 for a speech — for about half an hour of work. Among those who've recently joined Peter Lowe onstage are: George Bush, Oliver North, Barbara Walters, William Bennett, Colin Powell, Charlton Heston, Dr. Joyce Brothers, and Mario Cuomo.

Rachel Vasquez can hardly believe that she's sitting among so many people who own their own businesses, among so many executives in suits and ties. The Little Caesars employees have seats just a few yards from the stage. They've never seen anything like this. Though the arena's huge, it seems like these fourteen fast food workers from Pueblo can almost reach out and touch the famous people who appear at the podium.

"You are the elite of America," Brian Tracy, author of The Psychology of Selling, tells the crowd. "Say to yourself: I like me! I like me! I like me!" He is followed by Henry Kissinger, who tells some foreign policy anecdotes. And then Peter Lowe's attractive wife, Tamara, leads the audience in a dance contest; the winner gets a free trip to Disneyland. Four contestants climb onstage, dozens of beach balls are tossed into the crowd, the sound system blasts the Beach Boys' "Surfin' USA," and eighteen thousand people start to dance. Barbara Bush is next, arriving to "Fanfare for the Common Man," her smile projected onto two gigantic television screens. She tells a story that begins, "We had the whole gang at Kennebunkport..."

When Peter Lowe arrives, fireworks go off and multicolored confetti drops from the ceiling. He is a slender, red-haired man in a gray, double-breasted suit. He advises the audience to be cheerful, to train themselves for courage, to feed themselves with optimism, and never quit. He recommends his tape series, "Success Talk," on sale at the arena, which promises a monthly interview with "one of the most successful people of our time." After a short break, he reveals what is ultimately necessary to achieve success. "Lord Jesus, I need You," Peter Lowe asks the crowd to pray. "I want you to come into my life and forgive me for the things I've done."

Lowe has broken from the Christianity of his parents, a faith that now seems hopelessly out of date. The meek shall no longer inherit the earth; the go-getters will get it and everything that goes with it. The Christ who went among the poor, the sick, the downtrodden, among lepers and prostitutes, clearly had no marketing savvy. He has been transfigured into a latter-day entrepreneur, the greatest superstar salesperson of all time, who built a multinational outfit from scratch. Lowe speaks to the crowd about mercy. But the worship of selling and of celebrity infuses his literature, his guest lists, his radio shows and seminars. "Don't network haphazardly," Peter Lowe preaches in his $19.95 Peter Lowe's Success Yearbook. "Set goals to meet key people. Imagine yourself talking to them. Plan in advance what questions to ask them... When there is an important individual you want to network with, be prepared to say something insightful to them that show you're aware of their achievements... Everyone loves to receive a present. It's hard to be resistant or standoffish to someone who has just given you a nice gift... Adopt the attitude of a superstar... Smile. A smile tells people you like them, are interested in them. What an appealing message to send!" These are the teachings of his gospel, the good news that fills arenas and sells cassettes.

As the loudspeakers play the theme song from Chariots of Fire, Lowe wheels Christopher Reeve onstage. The crowd wildly applauds. Reeve's handsome face is framed by longish gray hair. A respirator tube extends from the back of his blue sweatshirt to a square box on his wheelchair. Reeve describes how it once felt to lie in a hospital bed at two o'clock in the morning, alone and unable to move and thinking that daylight would never come. His voice is clear and strong, but he needs to pause for breath after every few words. He thanks the crowd for its support and confesses that their warm response is one reason he appears at these events; it helps to keep his spirits up. He donates the speaking fees to groups that conduct spinal cord research. "I've had to leave the physical world," Reeve says. A stillness falls upon the arena; the place is silent during every pause. "By the time I was twenty-four, I was making millions," he continues. "I was pretty pleased with myself... I was selfish and neglected my family... Since my accident, I've been realizing... that success means something quite different." Members of the audience start to weep. "I see people who achieve these conventional goals," he says in a mild, even tone. "None of it matters."

His words cut through all the snake oil of the last few hours, calmly and with great precision. Everybody in the arena, no matter how greedy or eager for promotion, all eighteen thousand of them, know deep in their hearts that what Reeve has just said is true — too true. Their latest schemes, their plans to market and subdivide and franchise their way up, whatever the cost, the whole spirit now gripping Colorado, vanish in an instant. Men and women up and down the aisles wipe away tears, touched not only by what this famous man has been through but also by a sudden awareness of something hollow about their own lives, something gnawing and unfulfilled.

Moments after Reeve is wheeled off the stage, Jack Groppel, the next speaker, walks up to the microphone and starts his pitch, "Tell me friends, in your lifetime, have you ever been on a diet?"

II / meat and potatoes

5/ why the fries taste good

TO REACH THE J. R. SIMPLOT PLANT in Aberdeen, Idaho, you drive through downtown Aberdeen, population 2,000, and keep heading north, past the half dozen shops on Main Street. Then turn right at the Tiger Hut, an old hamburger stand named after a local high school team, cross the railroad tracks where freight cars are loaded with sugar beets, drive another quarter of a mile, and you're there. It smells like someone's cooking potatoes. The Simplot plant is low and square, clean and neat. The employee parking lot is filled with pickup trucks, and there's a big American flag flying out front. Aberdeen sits in the heart of Bingham County, which grows more potatoes than any other county in Idaho. The Simplot plant runs twenty-four hours a day, three hundred and ten days a year, turning potatoes into French fries. It's a small facility, by industry standards, built in the late 1950s. It processes about a million pounds of potatoes a day.

Inside the building, a maze of red conveyer belts crisscrosses in and out of machines that wash, sort, peel, slice, blanch, blow-dry, fry, and flash-freeze potatoes. Workers in white coats and hard hats keep everything running smoothly, monitoring the controls, checking the fries for imperfections. Streams of sliced potatoes pour from machines. The place has a cheerful, humble, Eisenhower-era feeling, as though someone's dream of technological progress, of better living through frozen food, has been fulfilled. Looming over the whole enterprise is the spirit of one man: John Richard Simplot, America's great potato baron, whose seemingly inexhaustible energy and willingness to take risks built an empire based on French fries. By far the most important figure in one of the nation's most conservative states, Simplot displays the contradictory traits that have guided the economic development of the American West, the odd mixture of rugged individualism and a dependence upon public land and resources. In a portrait that hangs above the reception desk at the Aberdeen plant, J. R. Simplot has the sly grin of a gambler who's scored big.

Simplot was born in 1909. His family left Dubuque, Iowa, the following year and eventually settled in Idaho. The Snake River Reclamation Project was offering cheap water for irrigation, funded by the U.S. government that would convert the desert of southern Idaho into lush farmland. Simplot's father became a homesteader, obtaining land for free and clearing it with a steel rail dragged between two teams of horses. Simplot grew up working hard on the farm. He rebelled against his domineering father, dropped out of school at the age of fifteen, and left home. He found work at a potato warehouse in the small town of Declo, Idaho. He sorted potatoes with a "shaker sorter," a hand- held device, nine to ten hours a day for 30 cents an hour. At the boarding house where he rented a room, Simplot met a group of schoolteachers who were being paid not in cash but in interest-bearing scrip. Simplot bought the scrip from the teachers for 50 cents on the dollar — and then sold the scrip to a local bank for 90 cents on the dollar. With his earnings, Simplot bought a rifle, an old truck, and 600 hogs for $1 a head. He built a cooker in the desert, stoked it with sagebrush, shot wild horses, skinned them, sold their hides for $2 each, cooked their meat, and fed the horse meat to his hogs through the winter. That spring, J. R. Simplot sold the hogs for $12.50 a head and, at the age of sixteen, became a potato farmer.

The Idaho potato industry was just getting started in the 1920s. The state's altitude, warm days, cool nights, light volcanic soil, and abundance of irrigation water made it an ideal setting for growing Russet Burbank potatoes. Simplot leased 160 acres, then bought farm equipment and a team of horses. He learned how to grow potatoes from his landlord, Lindsay Maggart, who raised yields by planting fresh seed every year. In 1928, Simplot and Maggart purchased an electric potato sorter; it seemed a remarkable invention. Simplot began sorting potatoes for his friends and neighbors, but Maggart did not want to share the new device with anyone else. The two men fought over the potato sorter and then agreed to settle who owned it with the flip of a coin. J. R. Simplot won the coin toss, got the sorter, sold all his farm equipment, and started his own business in a potato cellar in Declo. He traveled the Idaho countryside, plugging the rudimentary machine into the nearest available light socket and sorting potatoes for farmers. Soon he was buying and selling potatoes, opening warehouses, forming relationships with commodities brokers nationwide. When J. R. Simplot needed timber for a new warehouse, he and his men would just head down to Yellowstone and chop down some trees. Within a decade, Simplot was the largest shipper of potatoes in the West, operating thirty-three warehouses in Oregon and Idaho.

Simplot also shipped onions. In 1941, he started to wonder why the Burbank Corporation, an outfit in California, was ordering so many of his onions. Simplot went to California and followed one of the company's trucks to a prune orchard in Vacaville, where the Burbank Corporation was using prune dryers to make dehydrated onions. Simplot immediately bought a six-tunnel prune dryer and set up his own dehydration plant in Caldwell, Idaho. The plant opened on October 8, 1941. Two months later, the United States entered World War II, and Simplot began selling dehydrated onions to the U.S. Army. It was a profitable arrangement. The dehydrated onion powder, he later recalled, was like "gold dust."

The J. R. Simplot Dehydrating Company soon perfected a new method for drying potatoes and became one of the principal suppliers of food to the American military during World War II. In 1942, the company had a hundred workers at the Caldwell plant; by 1944, it had about twelve hundred. The Caldwell facility became the largest dehydrating plant in the world. J. R. Simplot used the profits earned as a military contractor to buy potato farms and cattle ranches, to build fertilizer plants and lumber mills, to stake mining claims and open a huge phosphate mine on the Fort Hall Indian Reservation. By the end of World War II, Simplot was growing his own potatoes, fertilizing them with his own phosphate, processing them at his factories, shipping them in boxes from his lumber yards, and feeding the leftover potato scraps to his cattle. He was thirty-six years old.

After the war, Simplot invested heavily in frozen food technology, betting that it would provide the meals of the future. Clarence Birds-eye had patented a number of techniques for flash-freezing in the 1920s. But sales of Birdseye's new products were hampered, among other things, by the fact that few American grocery stores, and even fewer households, owned a freezer. The sales of refrigerators, freezers, and other kitchen appliances soared after World War II. The 1950s soon became "the Golden Age of Food Processing," in the words of historian Harvey Levenstein, a decade in which one marvelous innovation after another promised to simplify the lives of American housewives: frozen orange juice, frozen TV dinners, the Chicken-of-Tomorrow, "Potato salad from a package!", Cheese Whiz, Jell-O salads, Jet-Puffed Marshmallows, Miracle Whip. Depression-era scarcity gave way to a cornucopia of new foods on the shelves of new suburban supermarkets. Ad campaigns made processed foods seem better than fresh ones, more space-age and up to date. According to Levenstein, many restaurants proudly displayed their canned soups, and a chain called Tad's 30 Varieties of Meals featured frozen dinners on its menu. Customers at Tad's cooked the frozen meals at tableside microwave ovens.

Postwar refrigerators came with freezer compartments, and J. R. Simplot thought about the foods that housewives might want to put in them. He assembled a team of chemists, led by Ray Dunlap, to develop a product that seemed to have enormous potential: the frozen French fry. Americans were eating more fries than ever before, and the Russet Burbank, with its large size and high starch content was the perfect potato for frying. Simplot wanted to create an inexpensive frozen fry that tasted just as good as a fresh one. Although Thomas Jefferson had brought the Parisian recipe for pommes frites to the United States in 1802, French fries did not become well known in this country until the 1920s. Americans traditionally ate their potatoes boiled, mashed, or baked. French fries were popularized in the United States by World War I veterans who'd enjoyed them in Europe and by the drive-in restaurants that subsequently arose in the 1930s and 1940s. Fries could be served without a fork or a knife, and they were easy to eat behind the wheel. But they were extremely time-consuming to prepare. Simplot's chemists experimented with various methods for the mass production of French fries, enduring a number of setbacks, learning the hard way that fries will sink to the bottom of a potato chip fryer and then burn. One day Dunlap walked into J. R. Simplot's office with some frozen fries that had just been reheated. Simplot tasted them, realized the manufacturing problems had been solved, and said, "That's a helluva thing."

J. R. Simplot started selling frozen French fries in 1953. Sales were initially disappointing. Although the frozen fries were precooked and could be baked in an oven, they tasted best when heated in hot oil, limiting their appeal to busy homemakers. Simplot needed to find institutional customers, restaurant owners who'd recognize the tremendous labor-saving benefits of his frozen fries.

"The French fry [was]... almost sacrosanct for me," Ray Kroc wrote in his memoir, "its preparation a ritual to be followed religiously." The success of Richard and Mac McDonald's hamburger stand had been based as much on the quality of their fries as on the taste of their burgers. The McDonald brothers had devised an elaborate system for making crisp French fries, one that was later improved by the restaurant chain. McDonald's cooked thinly sliced Russet Burbanks in special fryers to keep the oil temperature above 325 degrees. As the chain expanded, it became more difficult — and yet all the more important

— to maintain the consistency and quality of the fries. J. R. Simplot met with Ray Kroc in 1965. The idea of switching to frozen French fries appealed to Kroc, as a means of ensuring uniformity and cutting labor costs. McDonald's obtained its fresh potatoes from about 175 different local suppliers, and crew members spent a great deal of time peeling and slicing potatoes. Simplot offered to build a new factory solely for the manufacture of McDonald's French fries. Kroc agreed to try Simplot's fries, but made no long-term commitment. The deal was sealed with a handshake.

McDonald's began to sell J. R. Simplot's frozen French fries the following year. Customers didn't notice any difference in taste. And the reduced cost of using a frozen product made French fries one of the most profitable items on the menu — far more profitable than hamburgers. Simplot quickly became the main supplier of French fries to McDonald's. At the time, McDonald's had about 725 restaurants in the U nited States. Within a decade, it had more than 3,000. Simplot sold his frozen fries to other restaurant chains, accelerating the growth of the fast food industry and changing the nation's eating habits. Americans have long consumed more potatoes than any other food except dairy products and wheat flour. In 1960, the typical American ate eighty-one pounds of fresh potatoes and about four pounds of frozen French fries. Today the typical American eats about forty-nine pounds of fresh potatoes every year — and more than thirty pounds of frozen French fries. Ninety percent of those fries are purchased at fast food restaurants. Indeed, French fries have become the most widely sold foodservice item in the United States.

J. R. Simplot, an eighth-grade dropout, is now one of the richest men in the United States. His privately held company grows and processes corn, peas, broccoli, avocados, and carrots, as well as potatoes; feeds and processes cattle; manufactures and distributes fertilizer; mines phosphate and silica; produces oil, ethanol, and natural gas. In 1980, Simplot provided $1 million in start-up funds to a couple of engineers working in the basement of a dentist's office in Boise, Idaho. Twenty years later, his investment in Micron Technology — a manufacturer of computer memory chips and the largest private employer in Idaho — was worth about $1.5 billion. Simplot is also one of the nation's biggest landowners. "I've been a land hog all my life," Simplot told me, laughing. While still in his teens, he bought 18,000 acres along the Snake River, paying 50 cents an acre for it with borrowed money. His company now has 85,000 acres of irrigated farmland, and Simplot personally owns more than twice that amount of ranchland. He owns much of downtown Boise and a big hillside home overlooking the city. At home he flies a gigantic American flag on a pole that's ten stories high. In addition to what he owns, Simplot leases more than 2 million acres of land from the federal government. His ZX Ranch in southern Oregon is the largest cattle ranch in the United States, measuring 65 miles wide and 163 miles long. Altogether, Simplot controls a bloc of North American land that's bigger than the state of Delaware.

Despite being a multibillionaire, J. R. Simplot has few pretensions. He wears cowboy boots and blue jeans, eats at McDonald's, and drives his own car, a Lincoln Continental with license plates that say "MR. SPUD." He seems to have little patience for abstractions, viewing religion as a bunch of "hocus-pocus" and describing his potato empire matter-of-factly: "It's big and it's real, it ain't bullshit." Recently Simplot has been slowing down. A bad fall made him give up horseback riding at the age of eighty; in 1999 he turned ninety and quit skiing. He stepped down as the chief executive of his company in 1994, but keeps buying more land and scouting new factories. "Hell, fellow, I'm just an old farmer got some luck," Simplot said, when I asked about the key to his success. "The only thing I did smart, and just remember this — ninety-nine percent of people would have sold out when they got their first twenty-five or thirty million. I didn't sell out. I just hung on."

the mistake of standing alone

THE PRODUCTION OF frozen French fries has become an intensely competitive business. Although the J. R. Simplot Company supplies the majority of the French fries that McDonald's sells in the United States, two other fry companies are now larger: Lamb Weston, the nation's leading producer of fries, and McCain, a Canadian firm that became the number-two fry company after buying Ore-Ida in 1997. Simplot, Lamb Weston, and McCain now control about 80 percent of the American market for frozen French fries, having eliminated or acquired most of their smaller rivals. The three French fry giants compete for valuable contracts to supply the fast food chains. Frozen French fries have become a bulk commodity, manufactured in high volumes at a low profit margin. Price differences of just a few pennies a pound can mean the difference between winning or losing a major contract. All of this has greatly benefited the fast food chains, lowering their wholesale costs and making their retail sales of French fries even more profitable. Burger King's assault on the supremacy of the

Mc-Donald's French fry, launched in 1997 with a $70 million advertising campaign, was driven in large part by the huge markups that are possible with fries. The fast food companies purchase frozen fries for about 30 cents a pound, reheat them in oil, then sell them for about $6 a pound. Idaho's potato output surpassed Maine's in the late 1950s, owing to the rise of the French fry industry and the productivity gains made by Idaho farmers. Since 1980, the tonnage of potatoes grown in Idaho has almost doubled, while the average yield per acre has risen by nearly 30 percent. But the extraordinary profits being made from the sale of French fries have barely trickled down to the farmers. Paul Patterson, an extension professor of agricultural economics at the University of Idaho, describes the current market for potatoes as an "oligopsony" — a market in which a small number of buyers exert power over a large number of sellers. The giant processing companies do their best to drive down the prices offered to potato farmers. The increased productivity of Idaho farmers has lowered prices even further, shifting more of the profits to the processors and the fast food chains. Out of every $1.50 spent on a large order of fries at a fast food restaurant, perhaps 2 cents goes to the farmer who grew the potatoes.

Idaho's potato farmers now face enormous pressure to get bigger — or get out of the business. Adding more acreage increases total revenues and allows more capital investment; but the risks get bigger, too. The latest potato harvesting equipment — bright red, beautiful machines manufactured in Idaho by a company called Spudnik — can set a farmer back hundreds of thousands of dollars. It costs about $1,500 an acre to grow potatoes in Bingham County. The average potato farmer there, who plants about four hundred acres, is more than half a million dollars in the hole before selling a single potato. In order to break even, the farmer needs to receive about $5 per hundredweight of potatoes. During the 1996–97 season, potato prices fell as low as $1.50 per hundredweight. That year was a disaster for Idaho potato farmers, perhaps the worst in history. Record harvests nationwide and a flood of cheap imports from Canada created an enormous glut of potatoes. For many farmers, letting potatoes rot in the field would have been more profitable than selling them at such low prices. That was not a viable option, however; rotting potatoes can damage the land. Prices have recovered since then, but remain unusually low. An Idaho potato farmer's annual income is now largely determined by the weather, the world market, and the whims of the giant processors. "The only thing I can really control," one farmer told me, "is what time I get out of bed in the morning."

Over the past twenty-five years, Idaho has lost about half of its potato farmers. During the same period, the amount of land devoted to potatoes has increased. Family farms are giving way to corporate farms that stretch for thousands of acres. These immense corporate farms are divided into smaller holdings for administrative purposes, and farmers who've been driven off the land are often hired to manage them. The patterns of land ownership in the American West more and more resemble those of rural England. "We've come full circle," says Paul Patterson. "You increasingly find two classes of people in rural Idaho: the people who run the farms and the people who own them."

The headquarters of the Potato Growers of Idaho (PGI) is a strip-mall office suite, not far from a potato museum in Blackfoot. The PGI is a nonprofit organization that supplies market information to farmers and helps them negotiate contracts with processors. Bert Moulton, a longtime PGI staff member, is a big man with a crew cut who looks like a Goldwater Republican but sounds like an old-fashioned populist. Moulton thinks forming some sort of co-op, an association to coordinate marketing and production levels, may be the last hope for Idaho's potato farmers. At the moment, most farmers live in areas where there are only one or two processors buying potatoes — and oddly enough, those processors never seem to be bidding for potatoes on the same day. "Legally, the processors aren't supposed to be talking to one another," Moulton says. "But you know that they do." Not long ago, the major French fry companies in Idaho were owned by people with strong ties to the local community. J. R. Simplot was highly regarded by most Idaho farmers; he always seemed willing to help carry them through a lean year. Moulton says the fry companies now tend to be run by outsiders, by "MBA'S from Harvard who don't know if a potato grows on a tree or underground." The multinational food companies operate French fry plants in a number of different regions, constantly shifting production to take advantage of the lowest potato prices. The economic fortunes of individual farmers or local communities matter little in the grand scheme.

A few years ago, the PGI tried to create a formal alliance with potato farmers in Oregon and Washington, an effort that would have linked producers in the three states that grow most of the nation's potatoes. The alliance was undermined by one of the big processors, which cut lucrative deals with a core group of potato farmers. Moulton believes that Idaho's farmers deserve some of the blame for their own predicament. Long regarded as the aristocrats of rural Idaho, potato farmers remain stubbornly independent and unwilling to join forces. "Some of them are independent to the point of poverty," he says. Today there are roughly 1,100 potato farmers left in Idaho — few enough to fit in a high school auditorium. About half of them belong to the PGI, but the organization needs at least three-quarters of them as members to gain real bargaining power. The "joint ventures" now being offered by processing companies provide farmers with the potato seed and financing for their crop, an arrangement that should dispel any lingering illusions about their independence. "If potato farmers don't band together," Bert Moulton warns, "they'll wind up sharecroppers."

The behavior of Idaho's potato growers often betrays a type of faulty reasoning described in most college-level economics textbooks. "The fallacy of composition" is a logical error — a mistaken belief that what seems good for an individual will still be good when others do the same thing. For example, someone who stands at a crowded concert may get a better view of the stage. But if everyone at the concert stands up, nobody's view is improved. Since the end of World War II, farmers in the United States have been persuaded to adopt one new technology after another, hoping to improve their yields, reduce their costs, and outsell their neighbors. By embracing this industrial model of agriculture — one that focuses narrowly on the level of inputs and outputs, that encourages specialization in just one crop, that relies heavily on chemical fertilizers, pesticides, fungicides, herbicides, advanced harvesting and irrigation equipment — American farmers have become the most productive farmers on earth. Every increase in productivity, however, has driven more American farmers off the land. And it has left those who remain beholden to the companies that supply the inputs and the processors that buy the outputs. William Heffernan, a professor of rural sociology at the University of Missouri, says that America's agricultural economy now resembles an hourglass. At the top there are about 2 million ranchers and farmers; at the bottom there are 275 million consumers; and at the narrow portion in the middle, there are a dozen or so multinational corporations earning a profit from every transaction.

food product design

THE TASTE OF McDonald's French fries has long been praised by customers, competitors, and even food critics. James Beard loved Mc-Donald's fries. Their distinctive taste does not stem from the type of potatoes that McDonald's buys, the technology that processes them, or the restaurant equipment that fries them. Other chains buy their French fries from the same large processing companies, use Russet

Burbanks, and have similar fryers in their restaurant kitchens. The taste of a fast food fry is largely determined by the cooking oil. For decades, McDonald's cooked its French fries in a mixture of about 7 percent cottonseed oil and 93 percent beef tallow. The mix gave the fries their unique flavor—and more saturated beef fat per ounce than a McDonald's hamburger.

Amid a barrage of criticism over the amount of cholesterol in their fries, McDonald's switched to pure vegetable oil in 1990. The switch presented the company with an enormous challenge: how to make fries that subtly taste like beef without cooking them in tallow. A look at the ingredients now used in the preparation of McDonald's French fries suggests how the problem was solved. Toward the end of the list is a seemingly innocuous, yet oddly mysterious phrase: "natural flavor". That ingredient helps to explain not only why the fries taste so good, but also why most fast food —indeed, most of the food Americans eat today —tastes the way it does.

Open your refrigerator, your freezer, your kitchen cupboards, and look at the labels on your food. You'll find "natural flavor" or "artificial flavor" in just about every list of ingredients. The similarities between these two broad categories of flavor are far more significant than their differences. Both are man-made additives that give most processed food most of its taste. The initial purchase of a food item may be driven by its packaging or appearance, but subsequent purchases are determined mainly by its taste. About 90 percent of the money that Americans spend on food is used to buy processed food. But the canning, freezing, and dehydrating techniques used to process food destroy most of its flavor. Since the end of World War II, a vast industry has arisen in the United States to make processed food palatable. Without this flavor industry, today's fast food industry could not exist. The names of the leading American fast food chains and the bestselling menu items have become famous worldwide, embedded in our popular culture. Few people, however, can name the companies that manufacture fast food's taste.

The flavor industry is highly secretive. Its leading companies will not divulge the precise formulas of flavor compounds or the identities of clients. The secrecy is deemed essential for protecting the reputation of beloved brands. The fast food chains, understandably, would like the public to believe that the flavors of their food somehow originate in their restaurant kitchens, not in distant factories run by other firms.

The New Jersey Turnpike runs through the heart of the flavor industry, an industrial corridor dotted with refineries and chemical plants. International Flavors & Fragrances (IFF), the world's largest flavor company, has a manufacturing facility off Exit 8A in Dayton, New Jersey; Givaudan, the world's second-largest flavor company, has a plant in East Hanover. Haarmann & Reimer, the largest German flavor company, has a plant in Teterboro, as does Takasago, the largest Japanese flavor company. Flavor Dynamics has a plant in South Plainfield; Frutarom is in North Bergen; Elan Chemical is in Newark. Dozens of companies manufacture flavors in the corridor between Teaneck and South Brunswick. Indeed, the area produces about two-thirds of the flavor additives sold in the United States. The IFF plant in Dayton is a huge pale blue building with a modern office complex attached to the front. It sits in an industrial park, not far from a BASF plastics factory, a Jolly French Toast factory, and a plant that manufactures Liz Claiborne cosmetics. Dozens of tractor-trailers were parked at the IFF loading dock the afternoon I visited, and a thin cloud of steam floated from the chimney. Before entering the plant, I signed a nondisclosure form, promising not to reveal the brand names of products that contain IFF flavors. The place reminded me of Willy Wonka's chocolate factory. Wonderful smells drifted through the hallways, men and women in neat white lab coats cheerfully went about their work, and hundreds of little glass bottles sat on laboratory tables and shelves. The bottles contained powerful but fragile flavor chemicals, shielded from light by the brown glass and the round plastic caps shut tight. The long chemical names on the little white labels were as mystifying to me as Medieval Latin. They were the odd-sounding names of things that would be mixed and poured and turned into new substances, like magic potions.

I was not invited to see the manufacturing areas of the IFF plant, where it was thought I might discover trade secrets. Instead, I toured various laboratories and pilot kitchens, where the flavors of well-established brands are tested or adjusted, and where whole new flavors are created. IFF's snack and savory lab is responsible for the flavor of potato chips, corn chips, breads, crackers, breakfast cereals, and pet food. The confectionery lab devises the flavor for ice cream, cookies, candies, toothpastes, mouthwashes, and antacids. Everywhere I looked, I saw famous, widely advertised products sitting on laboratory desks and tables. The beverage lab is full of brightly colored liquids in clear bottles. It comes up with the flavor for popular soft drinks, sport drinks, bottled teas, and wine coolers, for all-natural juice drinks, organic soy drinks, beers, and malt liquors. In one pilot kitchen I saw a dapper food technologist, a middle-aged man with an elegant tie beneath his lab coat, carefully preparing a batch of cookies with white frosting and pink-and-white sprinkles. In another pilot kitchen I saw a pizza oven, a grill, a milk-shake machine, and a french fryer identical to those I'd seen behind the counter at countless fast food restaurants.

In addition to being the world's largest flavor company, IFF manufactures the smell of six of the ten best-selling fine perfumes in the United States, including Estée Lauder's Beautiful, Clinique's Happy, Lancôme's Trésor, and Calvin Klein's Eternity, It also makes the smell of household products such as deodorant, dishwashing detergent, bath soap, shampoo, furniture polish, and floor wax. All of these aromas are made through the same basic process: the manipulation of volatile chemicals to create a particular smell. The basic science behind the scent of your shaving cream is the same as that governing the flavor of your TV dinner.

The aroma of a food can be responsible for as much as 90 percent of its flavor. Scientists now believe that human beings acquired the sense of taste as a way to avoid being poisoned. Edible plants generally taste sweet; deadly ones, bitter. Taste is supposed to help us differentiate food that's good for us from food that's not. The taste buds on our tongues can detect the presence of half a dozen or so basic tastes, including: sweet, sour, bitter, salty, astringent, and umami (a taste discovered by Japanese researchers, a rich and full sense of deliciousness triggered by amino acids in foods such as shellfish, mushrooms, potatoes, and seaweed). Taste buds offer a relatively limited means of detection, however, compared to the human olfactory system, which can perceive thousands of different chemical aromas. Indeed "flavor" is primarily the smell of gases being released by the chemicals you've just put in your mouth.

The act of drinking, sucking, or chewing a substance releases its volatile gases. They flow out of the mouth and up the nostrils, or up the passageway in the back of the mouth, to a thin layer of nerve cells called the olfactory epithelium, located at the base of the nose, right between the eyes. The brain combines the complex smell signals from the epithelium with the simple taste signals from the tongue, assigns a flavor to what's in your mouth, and decides if it's something you want to eat.

Babies like sweet tastes and reject bitter ones; we know this because scientists have rubbed various flavors inside the mouths of infants and then recorded their facial reactions. A person's food preferences, like his or her personality, are formed during the first few years of life, through a process of socialization. Toddlers can learn to enjoy hot and spicy food, bland health food, or fast food, depending upon what the people around them eat. The human sense of smell is still not fully understood and can be greatly affected by psychological factors and expectations. The mind filters out the overwhelming majority of chemical aromas that surround us, focusing intently on some, ignoring others. People can grow accustomed to bad smells or good smells; they stop noticing what once seemed overpowering. Aroma and memory are somehow inextricably linked. A smell can suddenly evoke a long-forgotten moment. The flavors of childhood foods seem to leave an indelible mark, and adults often return to them, without always knowing why. These “comfort foods” become a source of pleasure and reassurance, a fact that fast food chains work hard to promote. Childhood memories of Happy Meals can translate into frequent adult visits to McDonald’s, like those of the chain’s “heavy users,” the customers who eat there four or five times a week.

The human craving for flavor has been a largely unacknowledged and unexamined force in history. Royal empires have been built, unexplored lands have been traversed, great religions and philosophies have been forever changed by the spice trade. In 1492 Christopher Columbus set sail to find seasoning. Today the influence of flavor in the world marketplace is no less decisive. The rise and fall of corporate empires — of soft drink companies, snack food companies, and fast food chains — is frequently determined by how their products taste.

The flavor industry emerged in the mid-nineteenth century, as processed foods began to be manufactured on a large scale. Recognizing the need for flavor additives, the early food processors turned to perfume companies that had years of experience working with essential oils and volatile aromas. The great perfume houses of England, France, and the Netherlands produced many of the first flavor compounds. In the early part of the twentieth century, Germany’s powerful chemical industry assumed the technological lead in flavor production. Legend has it that a German scientist discovered methyl anthranilate, one of the first artificial flavors, by accident while mixing chemicals in his laboratory. Suddenly the lab was filled with the sweet smell of grapes. Methyl anthranilate later became the chief flavoring compound of grape Kool- Aid. After World War II, much of the perfume industry shifted from Europe to the United States, settling in New York City near the garment district and the fashion houses. The flavor industry came with it, subsequently moving to New Jersey to gain more plant capacity. Man-made flavor additives were used mainly in baked goods, candies, and sodas until the 1950s, when sales of processed food began to soar. The invention of gas chromatographs and mass spectrometers — machines capable of detecting volatile gases at low levels — vastly increased the number of flavors that could be synthesized. By the mid-1960s the American flavor industry was churning out compounds to supply the taste of Pop Tarts, Bac-Os, Tab, Tang, Filet-O-Fish sandwiches, and literally thousands of other new foods.

The American flavor industry now has annual revenues of about $1.4 billion. Approximately ten thousand new processed food products are introduced every year in the United States. Almost all of them require flavor additives. And about nine out of every ten of these new food products fail. The latest flavor innovations and corporate realignments are heralded in publications such as Food Chemical News, Food Engineering, Chemical Market Reporter, and Food Product Design. The growth of IFF has mirrored that of the flavour industry as a whole. IFF was formed in 1958, through the merger of two small companies. Its annual revenues have grown almost fifteen fold since the early 1970s, and it now has manufacturing facilities in twenty countries.

The quality that people seek most of all in a food, its flavor, is usually present in a quantity too infinitesimal to be measured by any traditional culinary terms such as ounces or teaspoons. Today's sophisticated spectrometers, gas chromatographs, and headspace vapor analyzers provide a detailed map of a food's flavor components, detecting chemical aromas in amounts as low as one part per billion. The human nose, however, is still more sensitive than any machine yet invented. A nose can detect aromas present in quantities of a few parts per trillion — an amount equivalent to 0.000000000003 percent. Complex aromas, like those of coffee or roasted meat, may be composed of volatile gases from nearly a thousand different chemicals. The smell of a strawberry arises from the interaction of at least 350 different chemicals that are present in minute amounts. The chemical that provides the dominant flavor of bell pepper can be tasted in amounts as low as .02 parts per billion; one drop is sufficient to add flavor to five average size swimming pools. The flavor additive usually comes last, or second to last, in a processed food's list of ingredients (chemicals that add color are frequently used in even smaller amounts). As a result, the flavor of a processed food often costs less than its packaging. Soft drinks contain a larger proportion of flavor additives than most products. The flavor in a twelve-ounce can of Coke costs about half a cent.

The Food and Drug Administration does not require flavor companies to disclose the ingredients of their additives, so long as all the chemicals are considered by the agency to be GRAS (Generally Regarded As Safe). This lack of public disclosure enables the companies to maintain the secrecy of their formulas. It also hides the fact that flavor compounds sometimes contain more ingredients than the foods being given their taste. The ubiquitous phrase "artificial strawberry flavor" gives little hint of the chemical wizardry and manufacturing skill that can make a highly processed food taste like a strawberry.

A typical artificial strawberry flavor, like the kind found in a Burger King strawberry milk shake, contains the following ingredients: amyl acetate, amyl butyrate, amyl valerate, anethol, anisyl formate, benzyl acetate, benzyl isobutyrate, butyric acid, cinnamyl isobutyrate, cinnamyl valerate, cognac essential oil, diacetyl, dipropyl ketone, ethyl acetate, ethyl amyl ketone, ethyl butyrate, ethyl cinnamate, ethyl heptanoate, ethyl heptylate, ethyl lactate, ethyl methylphenyl-glycidate, ethyl nitrate, ethyl propionate, ethyl valerate, heliotropin, hydroxyphenyl-2- butanone (10 percent solution in alcohol), α-ionone, isobutyl anthranilate, isobutyl butyrate, lemon essential oil, maltol, 4- methylacetophenone, methyl anthranilate, methyl benzoate, methyl cinnamate, methyl heptine carbonate, methyl naphthyl ketone, methyl salicylate, mint essential oil, neroli essential oil, nerolin, neryl isobutyrate, orris butter, phenethyl alcohol, rose, rum ether, γ-undecalactone, vanillin, and solvent.

Although flavors usually arise from a mixture of many different volatile chemicals, a single compound often supplies the dominant aroma. Smelled alone, that chemical provides an unmistakable sense of the food. Ethyl-2-methyl butyrate, for example, smells just like an apple. Today's highly processed foods offer a blank palette: whatever chemicals you add to them will give them specific tastes. Adding methyl-2- peridylketone makes something taste like popcorn. Adding ethyl-3-hydroxybutanoate makes it taste like marshmallow. The possibilities are now almost limitless. Without affecting the appearance or nutritional value, processed foods could even be made with aroma chemicals such as hexanal (the smell of freshly cut grass) or 3-methyl butanoic acid (the smell of body odor).

The 1960s were the heyday of artificial flavors. The synthetic versions of flavor compounds were not subtle, but they did not need to be, given the nature of most processed food. For the past twenty years food processors have tried hard to use only "natural flavors" in their products. According to the FDA, these must be derived entirely from natural sources — from herbs, spices, fruits, vegetables, beef, chicken, yeast, bark, roots, etc. Consumers prefer to see natural flavors on a label, out of a belief that they are healthier. The distinction between artificial and natural flavors can be somewhat arbitrary and absurd, based more on how the flavor has been made than on what it actually contains. "A natural flavor," says Terry Acree, a professor of food science at Cornell University, "is a flavor that's been derived with an out-of- date technology." Natural flavors and artificial flavors sometimes contain exactly the same chemicals, produced through different methods. Amyl acetate, for example, provides the dominant note of banana flavor. When you distill it from bananas with a solvent, amyl acetate is a natural flavor. When you produce it by mixing vinegar with amyl alcohol, adding sulfuric acid as a catalyst, amyl acetate is an artificial flavor. Either way it smells and tastes the same. The phrase "natural flavor" is now listed among the ingredients of everything from Stonyfield
Farm Organic Strawberry Yogurt to Taco Bell Hot Taco Sauce.

A natural flavor is not necessarily healthier or purer than an artificial one. When almond flavor (benzaldehyde) is derived from natural sources, such as peach and apricot pits, it contains traces of hydrogen cyanide, a deadly poison. Benzaldehyde derived through a different process — by mixing oil of clove and the banana flavor, amyl acetate — does not contain any cyanide. Nevertheless, it is legally considered an artificial flavor and sells at a much lower price. Natural and artificial flavors are now manufactured at the same chemical plants, places that few people would associate with Mother Nature. Calling any of these flavors "natural" requires a flexible attitude toward the English language and a fair amount of irony.

The small and elite group of scientists who create most of the flavor in most of the food now consumed in the United States are called "flavorists." They draw upon a number of disciplines in their work: biology, psychology, physiology, and organic chemistry. A flavorist is a chemist with a trained nose and a poetic sensibility. Flavors are created by blending scores of different chemicals in tiny amounts, a process governed by scientific principles but demanding a fair amount of art. In an age when delicate aromas, subtle flavors, and microwave ovens do not easily coexist, the job of the flavorist is to conjure illusions about processed food and, in the words of one flavor company's literature, to ensure "consumer likeability." The flavorists with whom I spoke were charming, cosmopolitan, and ironic. They were also discreet, in keeping with the dictates of their trade. They were the sort of scientist who not only enjoyed fine wine, but could also tell you the chemicals that gave each vintage its unique aroma. One flavorist compared his work to composing music. A well-made flavor compound will have a "top note," followed by a "dry-down," and a "leveling-off," with different chemicals responsible for each stage. The taste of a food can be radically altered by minute changes in the flavoring mix. "A little odor goes a long way," one flavorist said.

In order to give a processed food the proper taste, a flavorist must always consider the food's "mouthfeel" — the unique combination of textures and chemical interactions that affects how the flavor is perceived. The mouthfeel can be adjusted through the use of various fats, gums, starches, emulsifiers, and stabilizers. The aroma chemicals of a food can be precisely analyzed, but mouthfeel is much harder to measure. How does one quantify a French fry's crispness? Food technologists are now conducting basic research in rheology, a branch of physics that examines the flow and deformation of materials. A number of companies sell sophisticated devices that attempt to measure mouthfeel. The TA.XT2i Texture Analyzer, produced by the Texture Technologies Corporation, performs calculations based on data derived from as many as 250 separate probes. It is essentially a mechanical mouth. It gauges the most important rheological properties of a food — the bounce, creep, breaking point, density, crunchiness, chewiness, gumminess, lumpiness, rubberiness, springiness, slipperiness, smoothness, softness, wetness, juiciness, spreadability, spring-back, and tackiness.

Some of the most important advances in flavor manufacturing are now occurring in the field of biotechnology. Complex flavors are being made through fermentation, enzyme reactions, fungal cultures, and tissue cultures. All of the flavors being created through these methods — including the ones being synthesized by funguses — are considered natural flavors by the FDA. The new enzyme-based processes are responsible for extremely lifelike dairy flavors. One company now offers not just butter flavor, but also fresh creamy butter, cheesy butter, milky butter, savory melted butter, and super-concentrated butter flavor, in liquid or powder form. The development of new fermentation techniques, as well as new techniques for heating mixtures of sugar and amino acids, have led to the creation of much more realistic meat flavors. The McDonald's Corporation will not reveal the exact origin of the natural flavor added to its French fries. In response to inquiries from Vegetarian Journal, however, McDonald's did acknowledge that its fries derive some of their characteristic flavor from "animal products."

Other popular fast foods derive their flavor from unexpected sources. Wendy's Grilled Chicken Sandwich, for example, contains beef extracts. Burger King's BK Broiler Chicken Breast Patty contains "natural smoke flavor." A firm called Red Arrow Products Company specializes in smoke flavor, which is added to barbecue sauces and processed meats. Red Arrow manufactures natural smoke flavor by charring sawdust and capturing the aroma chemicals released into the air. The smoke is captured in water and then bottled, so that other companies can sell food which seems to have been cooked over a fire.

In a meeting room at IFF, Brian Grainger let me sample some of the company's flavors. It was an unusual taste test; there wasn't any food to taste. Grainger is a senior flavorist at IFF, a soft-spoken chemist with graying hair, an English accent, and a fondness for understatement. He could easily be mistaken for a British diplomat or the owner of a West End brasserie with two Michelin stars. Like many in the flavor industry, he has an Old World, old-fashioned sensibility which seems out of step with our brand-conscious, egocentric age. When I suggested that IFF should put its own logo on the products that contain its flavors — instead of allowing other brands to enjoy the consumer loyalty and affection inspired by those flavors — Grainger politely disagreed, assuring me such a thing would never be done. In the absence of public credit or acclaim, the small and secretive fraternity of flavor chemists praises one another's work. Grainger can often tell, by analyzing the flavor formula of a product, which of his counterparts at a rival firm devised it. And he enjoys walking down supermarket aisles, looking at the many products that contain his flavors, even if no one else knows it.

Grainger had brought a dozen small glass bottles from the lab. After he opened each bottle, I dipped a fragrance testing filter into it. The filters were long white strips of paper designed to absorb aroma chemicals without producing off-notes. Before placing the strips of paper before my nose, I closed my eyes. Then I inhaled deeply, and one food after another was conjured from the glass bottles. I smelled fresh cherries, black olives, sautéed onions, and shrimp. Grainger's most remarkable creation took me by surprise. After closing my eyes, I suddenly smelled a grilled hamburger. The aroma was uncanny, almost miraculous. It smelled like someone in the room was flipping burgers on a hot grill. But when I opened my eyes, there was just a narrow strip of white paper and a smiling flavorist.

millions and millions of fries

AT THE HEIGHT OF the potato harvest, I visited the Lamb Weston plant in American Falls, Idaho. It's one of the biggest fry factories in the world and makes French fries for McDonald's. It has a production capacity more than three times larger than that of the Simplot plant in Aberdeen. It is a state-of-the-art processing facility where raw commodities and man-made additives are combined to make America's most popular food.

Lamb Weston was founded in 1950 by F. Gilbert Lamb, the inventor of a crucial piece of French fry-making technology. The Lamb Water Gun

Knife uses a high-pressure hose to shoot potatoes at a speed of 117 feet per second through a grid of sharpened steel blades, thereby creating perfectly sliced French fries. After coming up with the idea, Gil Lamb tested the first Water Gun Knife in a company parking lot, shooting potatoes out of a fire hose. Lamb sold his company to ConAgra in 1988. Lamb Weston now manufactures more than 130 different types of French fries, including: Steak House Fries, CrissCut Fries, Hi-Fries, Mor-Fries, Burger Fries, Taterbabies, Taterboy Curley QQQ Fries, and Rus-Ettes Special Dry Fry Shoestrings.

Bud Mandeville, the plant manager, led me up a narrow, wooden staircase inside one of the plant's storage buildings. On the top floor, the staircase led to a catwalk, and beneath my feet I saw a mound of potatoes that was twenty feet deep and a hundred feet wide and almost as long as two football fields. The building was cool and dark, kept year-round at a steady 46 degrees. In the dim light the potatoes looked like grains of sand on a beach. This was one of seven storage buildings on the property.

Outside, tractor-trailers arrived from the fields, carrying potatoes that had just been harvested. The trucks dumped their loads onto spinning rods that brought the larger potatoes into the building and let the small potatoes, dirt, and rocks fall to the ground. The rods led to a rock trap, a tank of water in which the potatoes floated and the rocks sank to the bottom. The plant used water systems to float potatoes gently this way and that way, guiding different sizes out of different holding bays, then flushing them into a three-foot-deep stream that ran beneath the cement floor. The interior of the processing plant was gray, massive, and well-lit, with huge pipes running along the walls, steel catwalks, workers in hardhats, and plenty of loud machinery. If there weren't potatoes bobbing and floating past, you might think the place was an oil refinery.

Conveyer belts took the wet, clean potatoes into a machine that blasted them with steam for twelve seconds, boiled the water under their skins, and exploded their skins off. Then the potatoes were pumped into a preheat tank and shot through a Lamb Water Gun Knife. They emerged as shoestring fries. Four video cameras scrutinized them from different angles, looking for flaws. When a French fry with a blemish was detected, an optical sorting machine time-sequenced a single burst of compressed air that knocked the bad fry off the production line and onto a separate conveyer belt, which carried it to a machine with tiny automated knives that precisely removed the blemish. And then the fry was returned to the main production line.

Sprays of hot water blanched the fries, gusts of hot air dried them, and 25,000 pounds of boiling oil fried them to a slight crisp. Air cooled by compressed ammonia gas quickly froze them, a computerized sorter divided them into six-pound batches, and a device that spun like an out-of-control lazy Susan used centrifugal force to align the French fries so that they all pointed in the same direction. The fries were sealed in brown bags, then the bags were loaded by robots into cardboard boxes, and the boxes were stacked by robots onto wooden pallets. Forklifts driven by human beings took the pallets to a freezer for storage. Inside that freezer I saw 20 million pounds of French fries, most of them destined for McDonald's, the boxes of fries stacked thirty feet high, the stacks extending for roughly forty yards. And the freezer was half empty. Every day about a dozen railroad cars and about two dozen tractor-trailers pulled up to the freezer, loaded up with French fries, and departed for McDonald's restaurants in Boise, Pocatello, Phoenix, Salt Lake City, Denver, Colorado Springs, and points in between.

Near the freezer was a laboratory where women in white coats analyzed French fries day and night, measuring their sugar content, their starch content, their color. During the fall, Lamb Weston added sugar to the fries; in the spring it leached sugar out of them; the goal was to maintain a uniform taste and appearance throughout the year. Every half hour, a new batch of fries was cooked in fryers identical to those used in fast food kitchens. A middle-aged woman in a lab coat handed me a paper plate full of premium extra longs, the type of French fries sold at McDonald's, and a salt shaker, and some ketchup. The fries on the plate looked wildly out of place in this laboratory setting, this surreal food factory with its computer screens, digital readouts, shiny steel platforms, and evacuation plans in case of ammonia gas leaks. The French fries were delicious — crisp and golden brown, made from potatoes that had been in the ground that morning. I finished them and asked for more.