

The LEGO Story

By William Anthony

A brick so simple that even a six-year-old can understand it. A rigid, exactly formed piece of plastic, so flexible that it can be snapped together with other bricks to form any shape you can imagine. The LEGO brick.



The LEGO House Masterpiece Gallery in Denmark houses the most amazing LEGO creations built by fans throughout the world.

THE CONCEPT OF THE LEGO

brick wasn't born overnight. It grew from the idea of producing the highest quality toys possible, and it was refined in the refiner's fire of three devastating blazes that brought down the factories of Ole Kirk Kristiansen, founder of the LEGO Group. It all started with a small boy tending his neighbor's livestock in the patchwork of fields surrounding the village of Filskov in central Jutland.

Was it the lowing of cows or the bleating of sheep? Who knows? But legend has it that, to pass the time, Ole Kirk Kristiansen took bits of birch from the forests at the edges of the fields and whittled them into small figures and toys.

Ole Kirk's five brothers and five sisters enjoyed playing with the small toys, but life in rural Denmark at the turn of the 20th century was hard, and even the smallest child was expected to contribute. Nonetheless, Ole Kirk's father and mother valued education, and they sent him to school—when he wasn't working on neighboring farms.

Ole Kirk's older brother Bonde was a carpenter, and their parents Jens and Kirstine decided that it was a fine enough profession for Ole Kirk. He would become Bonde's apprentice in the village of Give. After completing his apprenticeship in 1911 at the age of 20, he was called to be a soldier in the army at the Citadel in Copenhagen. After a short stint without firing a shot in anger, he returned to Give.

He began as a journeyman carpenter, going from town to town, studying with masters in the area and finding work as he could. In 1914, he traveled to Norway and worked for six months in a woodworking factory at Vestfossen.

In 1916, Ole Kirk moved to Billund, Denmark, which was about eight miles from Filskov. There he married Kristine Sørensen and, at the age of 24, he invested his savings, about 10,000 Danish kroner, in *Billund Maskinsnedkeri*, a small woodworking factory. At the time, Billund was a tiny village of 150 to 200 souls, with nothing more than a handful of small farms, a few shops, a blacksmith, an inn, a mission hall, a school . . . and a woodworking factory.

Ole Kirk took his work seriously, and his woodworking soon became known in the area for its high quality. The factory made doors, windows, kitchen cabinets, chests of drawers, tools for digging peat, bodywork for carts and, never missing a sure thing, coffins. Ole Kirk and his small crew of carpenters started to take on larger projects: building dairies in Randbøl and

Three generations of the LEGO family, top to bottom: Ole Kirk Kristiansen, Godtfred Kirk Christiansen and Kjeld Kirk Kristiansen. (In Ole Kirk's day it was common to spell the surname with a K or Ch. All three in the photo were christened Kristiansen. Godtfred, however, used then Ch version all his life. With the amendment of the Danish Names Act in the 1980s, he formally adopted Christiansen.)



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Billund, homes, farm buildings, mission halls and a church building.

At the beginning of the 20th century, there weren't enough churches in Denmark, so churches were being built throughout the country. The Ministry of Finance allocated 40,000 kroner for the construction of a church in Skjoldbjerg, just south of Billund.

Ole Kirk won the contract to do the woodwork. In addition to structural woodwork, he contributed three oak chandeliers and other fixtures, all of which can still be seen today. After the material and labor costs were paid, little profit remained. Ole Kirk just nodded and said, "It was for a good purpose." The church opened in January 1921.

CHRISTIAN FAITH, SIMPLICITY, MODESTY, HUMOR AND courage: These were the values that he absorbed as a child and that he brought to his small Billund community. He did good work with determination and optimism, and shared the fruit of that work with his neighbors.

He taught in the Sunday school and took part in the church's scouting movement. He contributed financially to many causes and regarded his gardening and beekeeping as a source of inspiration and contemplation. Between 1917 and 1926, Ole Kirk and Kristine had four fine sons. Life wasn't easy, but Ole Kirk didn't expect it to be. His purpose was to look after the gifts he had been given and make everything of the highest quality possible.

And then his factory burned down.

On a quiet Sunday afternoon, sons Godtfred and Karl Georg were playing in the workshop while their parents enjoyed a midday nap. One thing led to another, and suddenly the glue kettle, which was full of wood shavings, caught fire. Flames leapt from the ground to the ceiling, and the workshop dragged the family home into the inferno. Luckily, no lives were lost.

Ole Kirk set about rebuilding the factory and planning a fine new home. Guarding the front steps, stone lions were meant to symbolize quality craftsmanship, but they certainly symbolized Ole Kirk's courage as well.

As Wall Street crashed in 1929, so did the rest of the world. Danish agriculture felt the repercussions, even in Ole Kirk's outlying farming community. In 1930, the U.S. and the U.K. placed restrictions on imports, and Danish butter and pork prices fell sharply. The loss of this large export market had serious consequences for Danish farmers. Many were forced from their farms. Ole Kirk's most important customers were no longer building dairies and churches. In 1931, he had to send his last journeyman away.

Great personal tragedy was waiting for Ole Kirk in 1932. His wife died,



This wooden duck from 1932 is one of the most popular wooden toys from the LEGO Group, and an icon in itself.

and he was left to raise four sons alone.

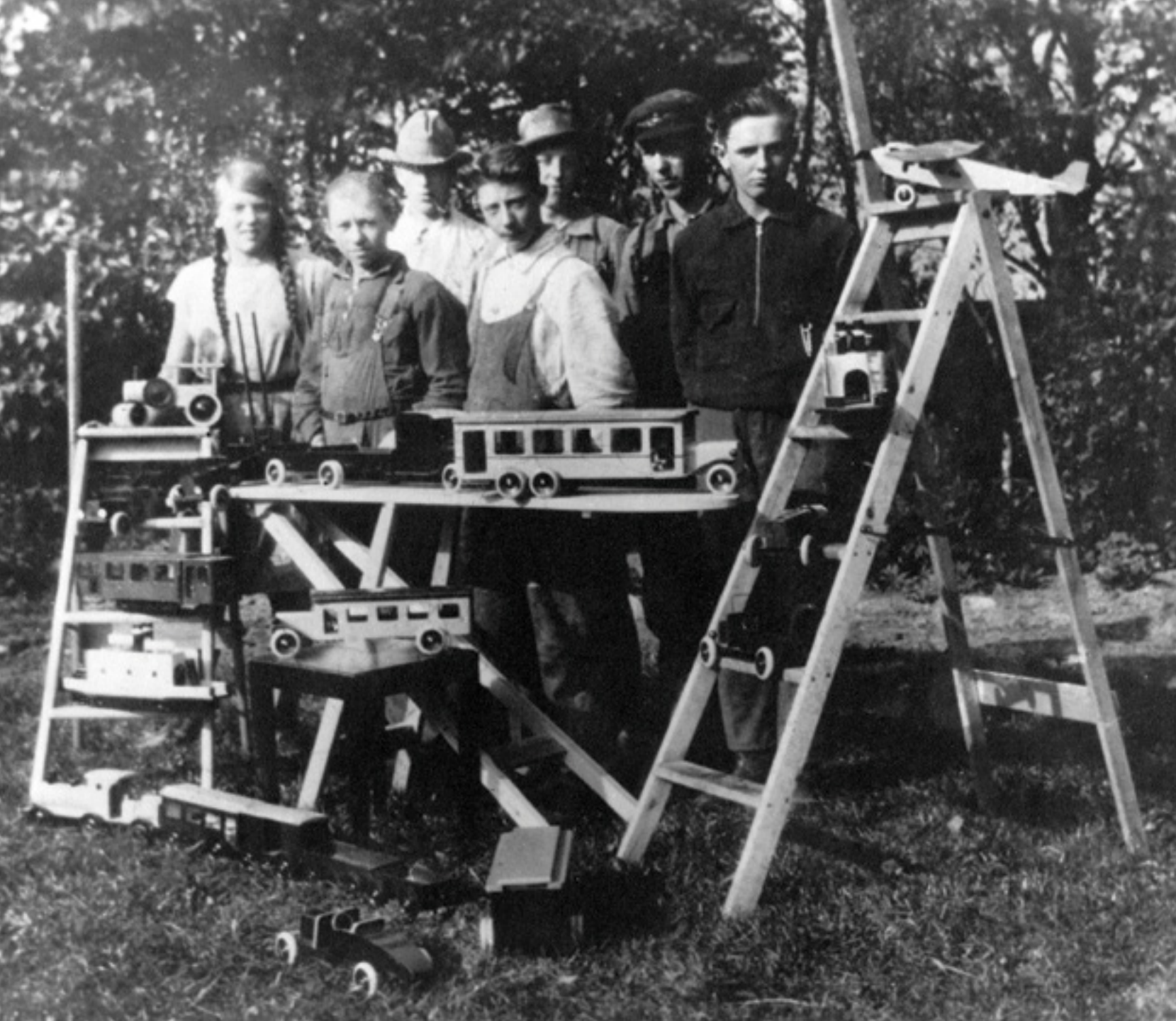
Of the year 1932 he wrote, "... at January 1, 1932, I surveyed my position and thought that prospects were good ... but it was as well that we could not see what lay ahead. During the summer we were asked to make toys for Jens W. Olesen, Fredericia, and, as we had no other work, we looked on it as a gift from God."

IF PEOPLE WEREN'T BUYING LARGE ITEMS, SUCH AS HOUSES and window frames and chests of drawers, they certainly still needed ironing boards, Christmas tree stands, stepladders and stools. Furthermore, Ole Kirk had observed that, even in the midst of a terrible depression, parents could always spare a few øre to bring a little joy into their children's lives. So, he added toys to the growing list of small, useful products with which he hoped to keep his business alive.

The factory started turning out miniature cars, trucks, buses, and airplanes. A brightly painted wooden duck that quacked when you pulled it became a big seller.

About this time, a craze that had started in San Francisco was taking the world by storm: the yo-yo. Ole Kirk's factory worked day and night to keep up with the demand. Then, just like that, the craze was over, and Ole Kirk was left with a mountain of unsold yo-yos. Always ready to turn a disadvantage into an opportunity, he cut the yo-yos in half and designed new products that used the surplus yo-yos as wheels.

The yo-yo escapade showed Ole Kirk the futility of chasing after fashion and the sensation of the moment. He sensed that something more was needed: solid toys that challenged children's imaginations and gave them new ways to play.



A typical product line from 1932.

Ole Kirk had given it a lot of thought and, in his mind's eye, he saw a company producing toys of high quality that stimulated children in many ways. By 1934, he was ready to change the face of his company and concentrate solely on producing wooden toys of the highest quality. And the company would have a new name: LEGO, the contraction of two words, *leg* (play) and *godt* (well). To fill a personal void in his life, he married his housekeeper, Kirsten Sofie Jørgensen, and a year later, they had a daughter Ulla.

HIS TOYS WERE MADE OF beech, which was air-dried for two years and kiln-dried for three weeks. Then, it was cut, sanded, polished and given three coats of varnish or paint, with the same attention to detail lavished on the furniture that his factory used to make.

Ole Kirk had a good, strong family, and he began building a strong family business. Godtfred, who got his start in the business by burning the factory to the ground, began learning how to use the machines in the woodshop, and soon he was working full-time with his father, handling business and bookkeeping matters. He began designing models for new toys when he was seventeen.

Eventually, in the 1950s, all of Ole's sons joined the family business. Godtfred Kirk was the managing director of the company. Karl was the director of plastic product manufacturing. Gerhardt was the director of wood product manufacturing, and Johannes was responsible for shipping and distribution.

Once, Godtfred Kirk took a

consignment of painted wooden ducks to the railway station. Back at the factory, he proudly announced to his father that he had done something clever and saved the company money. Ole Kirk wanted to know how. “I gave the ducks just two coats of varnish, not three as we usually do!” Ole looked at his shoes for a moment and then fixed his gaze on Godtfred. “Bring those ducks back from the station and give them the last coat of varnish. Pack them and return them to the station! And you’ll do it on your own, even if it takes you all night!”

“Only the best is good enough” (*Det bedste er ikke for godt*) became Ole Kirk’s motto for the company. Chastened, Godtfred machine-cut the motto into a beech plaque and hung it in the factory.

OLE KIRK WAS DRAWN TO all forms of new technology, tools and machinery, new materials and processing methods, anything that could improve quality and increase efficiency. As things began to improve in the mid-1930s and following his own vision, Ole Kirk bought his first milling machine in Germany for 3,000 kroner. At the time, a new house cost between 4,000 and 5,000 kroner. The milling machine represented one-third of the company’s total profit the previous year. Despite occasional skepticism from his family, Ole Kirk had become secure in his role as an innovative thinker.

World war came again, and Denmark was occupied by the Nazis. Ole Kirk observed that, in times of crisis, the demand for toys is greater than ever. During the first two years of the war, sales increased. All import activity was halted, which naturally favored the sale of Danish goods. Because LEGO produced wooden toys, the company was not affected when the use of metal and rubber for such things as toys was forbidden.

Even as production increased, another fire wiped out the LEGO factory on March 20, 1942, taking with it all of the company’s plans, materials, tools, models and products, and destroying Ole Kirk’s life’s work.

He tells the story in his memoirs: “At three o’clock in the morning



Counting machines at the processing facility in Billund tallying the 75 million bricks sold annually in more than 2,140 countries.

one of the young men who slept in the workshop came shouting, ‘The factory’s burning!’ It was a shocking message—and painful. I struggled to get a grasp of the situation but I had to pause for a moment and kneel to God. It was my thanks to him who knows all things, and it gave me peace and quiet in my mind.”

Despite his faith, Ole Kirk, who had just passed his fiftieth birthday, almost abandoned the idea of rebuilding the factory. The insurance did not cover what was lost, not to mention construction of a new factory. But on second thought, he realized that he owed it to his family and his fifteen employees to push forward. A bank loan was secured, and his factory dedicated to toy-making rose from the ashes. By the end of the year, production had



The longest toy train track in the world, acknowledged by *Guinness World Records*, is 13,123 feet

long and is made up of 93,307 LEGO elements. The route from start to finish takes four hours.

Ole Kirk and Godtfred released the LEGO Group's first plastic blocks in 1949.

resumed, and by the following year the company employed 40 people. Even though Ole Kirk had received offers from other parts of Denmark to relocate his factory, he remained in Billund.

The development of new plastic compounds had blossomed after the First World War. Now, another result of the war was the expanded use of plastics, and again Ole Kirk saw the benefits immediately. It allowed the production of identical items quickly and cheaply. Plastic items didn't chip or peel like painted wood. Plastic was sturdier, lighter and cheaper to ship than wood.

In 1946, Ole traveled to a trade fair in Copenhagen and witnessed a demonstration of a British injection-molding machine that could produce plastic toys. Ole Kirk didn't need much selling. He wanted to buy three of them, but his family convinced him to buy only one. The LEGO Group became one of the first in Denmark to produce plastic goods.

As part of his sales pitch, the sales representative who sold Ole Kirk the injection-molding machine had also given him a sample of a hollow, plastic brick made by the British company Kiddicraft. Again, Ole Kirk saw the potential. Unfortunately, the man who invented the Kiddicraft bricks was never able to make a success of the idea, and he gave up. The LEGO Group had made wooden blocks for years. Now, after making a few minor changes to the sample, Ole Kirk and Godtfred released the LEGO Group's first plastic bricks in 1949. They called them Automatic Binding Bricks.

THE BRICKS WERE NOT AN IMMEDIATE SUCCESS. TO MAKE them more appealing, Godtfred changed the name to LEGO Mursten (LEGO bricks) and created sets around certain themes, such as houses. He also designed more styles of bricks, such as ones with one row of two studs and two rows with three studs plus corner pieces, and a base plate.

A year later, Godtfred was on a steamer headed for a toy fair in England. He struck up a conversation with Troels Petersen, the purchasing manager for Magasin du Nord's toy department in Copenhagen, who noted that most toys didn't have any system. He imagined a group of compatible toys that could function together. A brick-shaped light bulb lit up in Godtfred's head.

His mind raced over the more than 200 toys, in wood and plastic, that LEGO was producing at the time, and he kept returning to the LEGO Mursten. Only the bricks suggested a system of play through which children could combine and recombine the individually anonymous bricks to build countless objects of their own imagining, over and over.

Godtfred understood that a child didn't have to accept existing cut-and-dried playthings. Children needed toys that challenged their imagination



In the middle of LEGO House in Billund stands perhaps the most iconic model of all—the Tree of Creativity. More than 50 feet tall, it is one of the largest LEGO structures ever built. It took 6,316,611 bricks and 24,350 hours to assemble.

and creativity. In retrospect Godtfred wrote, “Our idea has been to create a toy that prepares the child for life, appealing to its imagination and developing the creative urge and joy of creation that are the driving forces in every human being.”

In Godtfred's system, there should be a small, manageable number of components: maximum potential with as few elements as possible. “The more we add, the more we take away,” he said.



The LEGO House in Billund was completed in September 2017. Does it look familiar?

All of the products are meant to instill the joy of building and the pride of creation.

In 1955, the LEGO Group launched its System in Play. The first product was called Town Plan No. 1. The base was printed with streets and crosswalks. There were plastic people, trees, road signs and cars. The instructions encouraged children to create their own original towns.

But the bricks weren't perfect. Children complained that the structures made with the hollow bricks collapsed easily and couldn't be moved when they were finished. A new design was developed that kept the existing studs on top of one brick but added round tubes underneath a second brick. They fit together perfectly, creating the exact amount of friction necessary to hold the two bricks together. Then, they could be easily pulled apart. Godtfred called it "clutch power," and it's the same design used in LEGO bricks today. Clutch power changed the course of the LEGO Group. A patent was filed January 28, 1958.

Ole Kirk had been in poor health for several years and passed away on March 11, 1958. Godtfred had been running the company during that time and became the company's new president. By then, LEGO products were being sold throughout Europe. But Godtfred was ready to expand. He started exporting LEGO toys to Canada, Asia, Australia, Africa and the United States. A fitting tribute to Ole Kirk.

LEGO HAD TO ENDURE ONE MORE CONFLAGRATION. IN 1960, a fire destroyed the company's wooden-toy warehouse. The production of wooden toys was discontinued. The company would now concentrate on the LEGO System.

Of course, the story doesn't end there. Everyone knows how it ends, or rather, how it continues. Types of plastic are refined, production techniques are improved, marketing strategies are honed and new horizons are conquered. There are movie deals, theme parks and hotels. The ups have downs, and the downs have ups. People with new skills settle in, and full speed ahead! The LEGO Group is one of the five largest toy makers in the world.

But it seems as if, beyond the imperatives of business, this family-held business continues to cherish the values of the early days, of Ole Kirk, Godtfred, Kjeld and other kin who have subsequently joined the business. They are composing continually new variations on a theme made up of bricks, quality, imagination, creativity and learning.

Innovation is the result. In 2017, the launch of new products accounted for approximately 60 percent of the LEGO Group's sales to consumers. More than 250 designers from 40 countries work at product development.

Children are at the heart of the LEGO Group. All of the products are meant to instill the joy of building and the pride of creation, and so it is no

wonder that the LEGO Group cooperates on projects that benefit children with the United Nations, governments, charities and educational institutions, especially through its LEGO Foundation.

The LEGO Foundation promotes the value of learning through play, and so empowers children to become creative lifelong learners. It funds research into creativity, play and learning. The Foundation, "works by redefining play, reimagining learning, and enabling children to succeed through playful learning."

Only in 2017, the Foundation reached 1.3 million children. In Bangladesh, Tanzania and Uganda, the Foundation partnered with BRAC, one of the world's largest NGOs, to develop an affordable, play-based program for 3- to 5-year-olds. The program will launch 240 Play Labs for 7,000 children and train 400 play leaders.

IN MEXICO, THE FOUNDATION WILL SUPPORT 9,300 EARLY childhood centers with the National System for Integral Family Development (DIF). Using the Foundation's methodology, DIF will implement play-based learning that will positively support the children's development.

None of these projects would have been born if a boy at the edge of a muddy field hadn't used his own imagination and a pocketknife to create some rudimentary toys. The embrace of such simplicity is certainly a Scandinavian inheritance, an impulse to strip things down. It comes from an ancient memory of sunlight slashing across a bare farmhouse floor with a few pieces of furniture pushed against the walls, spare because that's all they had and that's all they needed.



"Only the best is good enough", the LEGO groups motto since 1932.

William Anthony is a writer and editor living in Copenhagen. He has directed ballet companies in Germany and Austria and writes about the performing arts.