Christmas lights start and end their lives in China, and could soon cost more

By Benjamin Romano, Seattle Times on 12.13.18
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People enjoy the Christmas lights on the 700 block of 34th Street in the Hampden community of Baltimore, Maryland, on December 12, 2014. The display called "Miracle on 34th Street" dates back to 1947 and attracts thousands of tourists each year. Photo by: Mladen Antono/AFP/Getty Images

SEATTLE, Washington — Perhaps you're digging out your Christmas lights to perform the annual ritual of plugging them in and counting the dead.

Maybe you made a time-consuming and unsuccessful attempt to repair the half-working light sets, replacing a few burned-out bulbs, fiddling with the tiny fuses before giving up and adding them to the collection in the garage — a tangled ball of white and green plastic, wire and glass.

And now you're wondering what to do with them, and what happens next.

As simple as lights seem, the answers tell stories about the co-dependence of U.S. consumers and Chinese recyclers and producers, fluctuating commodity prices, the impacts of the Trump administration's protectionist trade policies and planned obsolescence.

For starters, burned-out Christmas lights need not end up in the landfill. They can be recycled, though it takes a little effort. They should not be put in household recycling bins.

Companies that handle municipal recycling, such as Republic Services, for local cities see a surge in discarded light sets in early December and again in January, but they don't want them. The strings can tangle in sorting equipment, slowing the process or damaging machinery, a spokeswoman says.

Instead, you can drop them off at some local stores such as McLendon Hardware and in collection bins around the region set out by organizations including the Girl Scouts, or bring them directly to recyclers and scrap yards. These will return your defunct string of lights — specifically the copper wire inside — to the global commodities supply chain.

"Right now, there is a market for Christmas lights and it's strong enough that I can actually pay a little bit for it, and I get paid for it," said Jonathan Howe, owner of West Seattle Recycling.

He's paying 5 cents a pound, a price also quoted by other area recyclers, including The Recycling Depot.

"It's probably the lowest we pay for wire because of the fact that there's so much garbage on it," said Dave McElroy, the general manager there. That includes the insulation and plastic around the wire, plastic plugs, plastic housings for bulbs and the glass-and-metal bulbs themselves.

Howe said he's paid as much as 25 cents a pound in the past. It's all driven by the global copper market, which was dragged down a few months ago by a slowing Chinese economy and the U.S.-China trade war, which also promises to boost the cost of new Christmas lights — almost all of which are made in China.

Christmas lights are a "drop in the bucket" compared to the volume of newspaper, nonferrous metals, aluminum cans and other items West Seattle Recycling collects. Howe said the small recycling center might receive 1,000 pounds of lights during the holiday season, though that can increase five-fold if commercial lighting installers come his way when they take down their displays in January.

Recyclers, in turn, seek the best price they can get for Christmas lights from specialty buyers who ship them to China — specifically to Shijiao, a town in Guangdong Province that has a specialization in Christmas lights recycling and handles millions of pounds of them each year, according to the 2013 book "Junkyard Planet: Travels in the Billion-Dollar Trash Trade," by journalist Adam Minter.

Industrial shredders there chop the light sets to bits and separate the valuable metal from the plastic. That's an improvement over earlier practices, in which the plastic parts were burned off.

"The process in China for recycling lights is cleaner than it previously has been, and from what our contacts in China have told us, the Chinese government no longer allows burning in order to extract copper from the wire," said Jason Woodward, managing partner and marketing director at Christmas Designers, a Sherman, Texas-based specialist in Christmas lights.

That's where the journey ends for old lights. It's also where the journey begins. But that wasn't always the case. Electric Christmas lights are a distinctly American invention.

Thomas Edison gets credit for the first string of electric lights, displayed in his Menlo Park, New Jersey, laboratory in 1880. Edward Johnson, an Edison friend and partner, was the first to put the lights on a tree in 1882, replacing the traditional (and dangerous) candles, according to a history compiled by the Library of Congress. President Grover Cleveland had the White House Christmas tree decked out in electric lights in 1895, and the electrification of Christmas began in earnest.

Edison's General Electric pioneered the first light sets in 1903, but they were costly — renting a set of 28 was $300 in today's dollars. In the 1920s, the National Outfit Manufacturer's Association, NOMA, took over the business with a more affordable option, and was the largest manufacturer in the world for the next 40 years, according to Woodward, who wrote a detailed history of Christmas lights last year.

In the 1950s, the popularity of aluminum Christmas trees, which were not decorated with lights, hit NOMA hard. It went bankrupt in 1966. By 1978, U.S. Christmas light manufacturing was a thing of the past.

The popularity of Christmas lights has only grown, however, with homeowner and businesses vying to outdo each other in over-the-top lighting displays.

Now, China dominates the Christmas lights business. In 2017, nearly $416 million worth of "lighting sets of a kind used for Christmas trees" were imported to the United States, almost entirely from China, according to trade statistics from the U.S. Census Bureau. That's an estimate of just the price paid at export. Woodward said lighting and decorating for Christmas is a "multibillion-dollar industry, but oddly enough, there's very little solid research data available."

Judging by the volume of lights observed at the Shijiao recyclers, a good deal of that is spent on replacing last year's burned-out sets. Woodward said retail-grade light sets can be expected to last, on average, two to three years.

This feels a lot like planned obsolescence — the industrial strategy of building products to fail, pricing them so cheaply that repair isn't worth it and reaping repeat sales from the same customers year after year. Coincidentally, planned obsolescence as a business strategy began in

1924 with the Phoebus cartel of international light-bulb manufacturers — including GE — who divvied up the global market and agreed to artificially limit the lifespan of the incandescent light bulb to 1,000 hours — well below the common operating life of bulbs at the time.

Then again, Christmas lights do tough duty, enduring the jolts and abuses of unpacking and setup, exposure to wet and windy winter weather and fleeting-but-still-damaging sunlight, the post-holiday takedown and storage the rest of the year in a hot-cold garage or attic. Exposure to the salt air in coastal locations can cut their expected lifespan in half, Woodward said.

So how to get off of this global cycle of buying, recycling and buying again?

"Trying to buy more durable products and keep them going so you don't have to recycle, throw them out or try to repair them — that's the best thing," said Tom Watson, a longtime public outreach project manager with the King County Solid Waste Division.

The LED lights that are coming to dominate the market promise greater durability, in part because they use dramatically less power.

People should look for lights marketed as professional or commercial grade, which can be expected to last twice as long as retail-grade sets, Woodward said. They come at a premium price, but should be cheaper over their lifespan.

He notes that made-in-China doesn't have to mean low quality.

Three years ago, Christmas Designers, which sells lights directly and also has a large commercial installations business, developed its own private- label light sets. They've since earned the top rating in the outdoor-lights category from comprehensive product review site Wirecutter.

Woodward and his business partners travel regularly to China to monitor the manufacturers they contract with and the product coming off the assembly line. "We've found that the highest quality product comes from the factories that value their employees and provide the best possible working environment," he said.

Christmas lights from China were among the thousands of products slapped with 10 percent tariffs in September. That was due to an increase to 25 percent in January, but this weekend's agreement between the United States and China puts it off for 90 days while the two governments seek to iron out their many differences on trade.

Christmas Designers expects to raise prices next year to account for the tariffs. But that's unlikely to spark a renaissance in U.S. Christmas lights manufacturing, Woodward said. "Our estimates put the (U.S.) manufacturing cost at about 80 percent over what we're able to get the lights for overseas," he said.

As the impact of the tariffs takes effect, he expects a surge in production in Vietnam and other developing countries, rather than China.

Quiz

1 Read the following two summaries of the article.

1. *Christmas lights today are mostly made and recycled in China, though they are an American invention. Buying and replacing lighting for Christmas is a multibillion-dollar industry. Though some new lights promise greater durability, shifting trade relations will affect the manufacture and cost of the lights.*
2. *Christmas lights are an American invention, which was popularized by beautiful light displays at the White House. Most lights today are made and recycled in China in order to keep the costs of manufacturing low. Because of recent trade changes, most Christmas lights will soon be made in the United States again.*

Which answer choice is an accurate and objective summary of the article, and why?

(A) Summary 1; it concisely explains how the manufacture, recycling and trade of Christmas lights affect consumers.

(B) Summary 1; it concisely outlines the importance of finding better quality lights to save money at Christmas.

(C) Summary 2; it concisely explains how Christmas lights became a popular, though expensive, tradition in the United States.

(D) Summary 2; it concisely outlines the circular pattern that Christmas light manufacturing has taken over time.

2 Read the following two details from the article.

> *Recyclers, in turn, seek the best price they can get for Christmas lights from specialty buyers who ship them to China — specifically to Shijiao, a town in Guangdong Province that has a specialization in Christmas lights recycling and handles millions of pounds of them each year,...*
>
> *In 2017, nearly $416 million worth of "lighting sets of a kind used for Christmas trees" were imported to the United States, almost entirely from China, according to trade statistics from the U.S. Census Bureau. That's an estimate of just the price paid at export.*

Select the answer choice that BEST explains how these details develop a central idea of the article.

(A) Both details demonstrate the likelihood that the cost of importing Christmas lights from China will increase in the future.

(B) Both details reflect the view that more U.S. companies should begin recycling Christmas lights themselves instead of importing them.

(C) Both details contribute to the understanding that Christmas lights are part of a complex trade relationship between the United States and China.

(D) Both details highlight the perspective that purchasing high- quality Christmas lights instead of buying and recycling can cut costs.

3 Which of the following ideas did the author develop LEAST in the article about Christmas lights being made and recycled in China?

(A) the theory of planned obsolescence of Christmas lights and bulbs

(B) the process by which broken Christmas lights are sold and recycled

(C) the history and popularity of Christmas lights in the United States

(D) the cost of returning Christmas light manufacturing to the United States

4 Which sentence BEST explains how Christmas light manufacturing in the United States ended?

(A) The largest manufacturer of affordable lights in the United States, the National Outfit Manufacturer's Association, sold lights with a cost that was out of reach for most American consumers at the time.

(B) The largest manufacturer of affordable lights in the United States, the National Outfit Manufacturer's Association, went bankrupt after sales plummeted as a result of the aluminum Christmas tree trend.

(C) General Electric and the Phoebus cartel of international light-bulb manufacturers agreed to artificially limit the lifespan of the lights, angering and alienating consumers from their products for years to come.

(D) General Electric and the Phoebus cartel of international light-bulb manufacturers sponsored light display competitions, which caused consumers to seek out the cheapest available lights they could find.