

Lustron Corporation steel houses

Peter Lobner, 15 June 2020

The Lustron Corporation was formed in 1947 by Carl Strandlund, in collaboration with Chicago Vitreous Enamel Corporation, to mass-produce steel-constructed housing after World War II (WW II). The name “Lustron” refers to the factory-applied, lustrous, permanent porcelain enamel finish on all steel components.

Lustron received an initial \$15,500,000 loan from the Reconstruction Finance Corporation (RFC) to mass-produce steel pre-fabricated houses in a former Curtiss-Wright aircraft factory in Columbus, OH, with more than 1,000,000 square feet of manufacturing floor space.

After WW II, steel was a rationed material controlled by the Department of Commerce. There was only a limited allocation for “non-essential” use, such as manufacturing pre-fabricated homes, and Lustron received a large share of that allocation.



The only 2-bedroom Lustron “Esquire” prototype model. It was built in Hinsdale, IL. Source: <http://instanthouse.blogspot.com>

Lustron homes were FHA approved and financed. The customer could choose from three production models, Winchester, Newport and Meadowbrook, which could be ordered with 2- or 3-bedroom floor plans. The Winchester could be ordered in “Standard” or “Deluxe” finish.



Representative Lustron floor plans.

*Source: Screenshot from video, “The History of the Lustron House,”
Raleigh Historic Development Commission*

All houses came standard with porcelain enamel-coated steel exterior panels available in four colors: surf blue, maize yellow, desert tan, and dove gray. The houses also had an enamel-coated steel shingle roof, enamel-coated steel interior wall panels most often in a standard light grey color, metal ceiling tiles, interior pocket doors, metal cabinets, and service and storage areas. The homeowner was responsible for supplying the kitchen range and refrigerator, but each Lustron house came with a Thor-brand combination dishwasher/clothes washer. A picture-hanging kit (magnets for hanging items on the steel walls) also was available from Lustron. All Lustron models have a characteristic porch column with an integrated serpentine downspout.

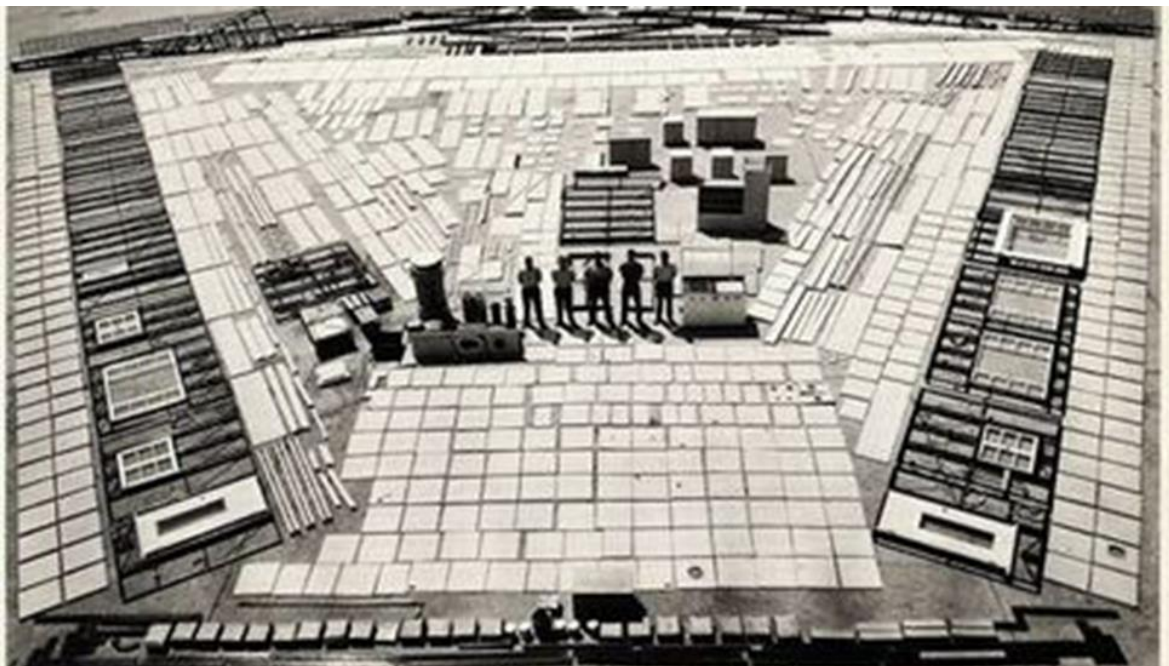
The Winchester Deluxe included several features that were not available on the other models, including a living room bay window, built-in vanities in the bathroom and master bedroom, and a built-in pass-through metal China cabinet between the kitchen and dining room. The two-bedroom, 1,021 ft², Westchester Deluxe became the most popular model.

Lustron floor plans could be "flipped" to produce a mirror image of the original plan. This flexibility was achieved using the same set of standard, factory-manufactured parts.

To maintain standardization and quality among their models, Lustron Corporation issued a Master Specification. This document established requirements to be met by the owner for site, foundation sub slab and floor slab preparation prior to receipt of their Lustron house. In addition, the document defined requirements and quality standards for Lustron-provided items, including house structural features, windows and doors, kitchen built-ins, house fixtures (kitchen and bath), appliances, house systems (electrical, lighting, plumbing, radiant floor heating & water heater) and interior finish. You can read the Master Specification at the following link:

<https://www.ohiohistory.org/OHC/media/OHC-Media/Documents/Lustron/master-specifications.pdf>

Each home had 11 – 13 tons of steel and about one ton of enamel in about 3,300 prefabricated pieces, bolts and other fasteners.



1949 photo of the prefabricated components of a Lustron house.

Source: Gizmodo, 3 April 2013

After the concrete foundation (usually slab, but could have a basement) was completed at the home site, the factory-packaged house was delivered on a single, custom-built Lustron flatbed truck.



Source: <https://connecticuthistory.org>

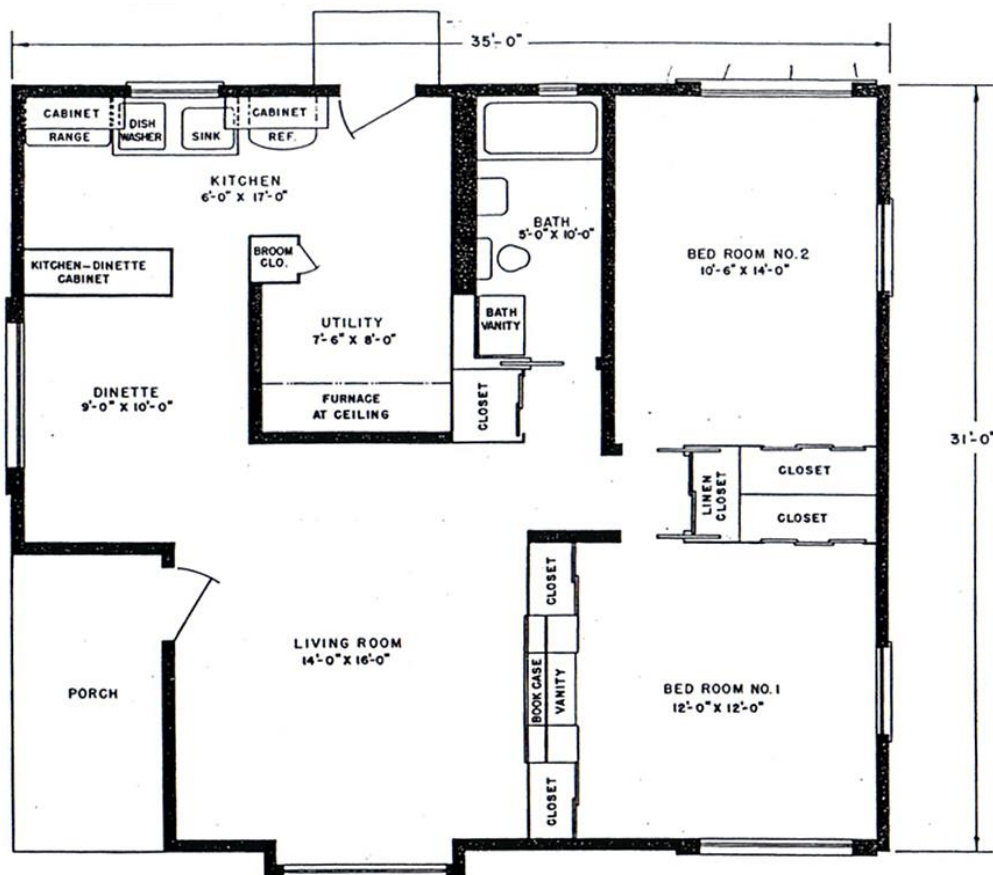


Source: <http://wisconsinhistory.org>

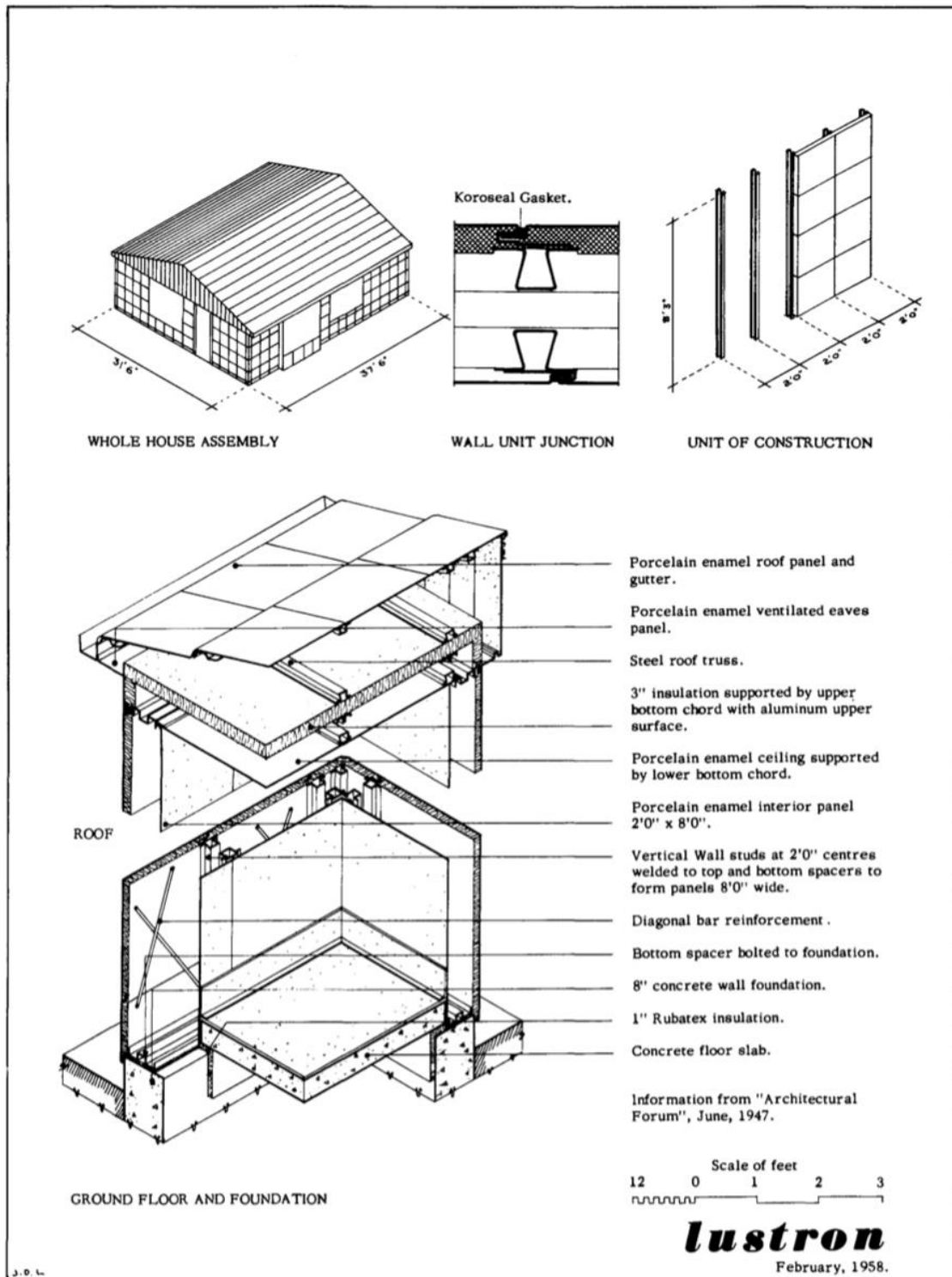
This package of parts was complete except for flooring, electric conduit and piping. Wall and roof frames and trusses were delivered already welded. An assembly team working for the local Lustron builder-dealer could assemble the house on the foundation in about two weeks, with about 360 man-hours of labor.

Each Lustron house model came with its own specific Erection Manual that explained in detail how to assemble the house from the kit of delivered parts. You'll find the 193-page Lustron Erection Manual for a two bedroom Westchester 02 Model on the Ohio History Connection website at the following link:

<https://www.ohiohistory.org/visit/exhibits/ohio-history-center-exhibits/1950s-building-the-american-dream/lustron-about/lustron-library/erection-manual>



Lustron 2-bedroom Westchester 02 Model
Source: Lustron Erection Manual



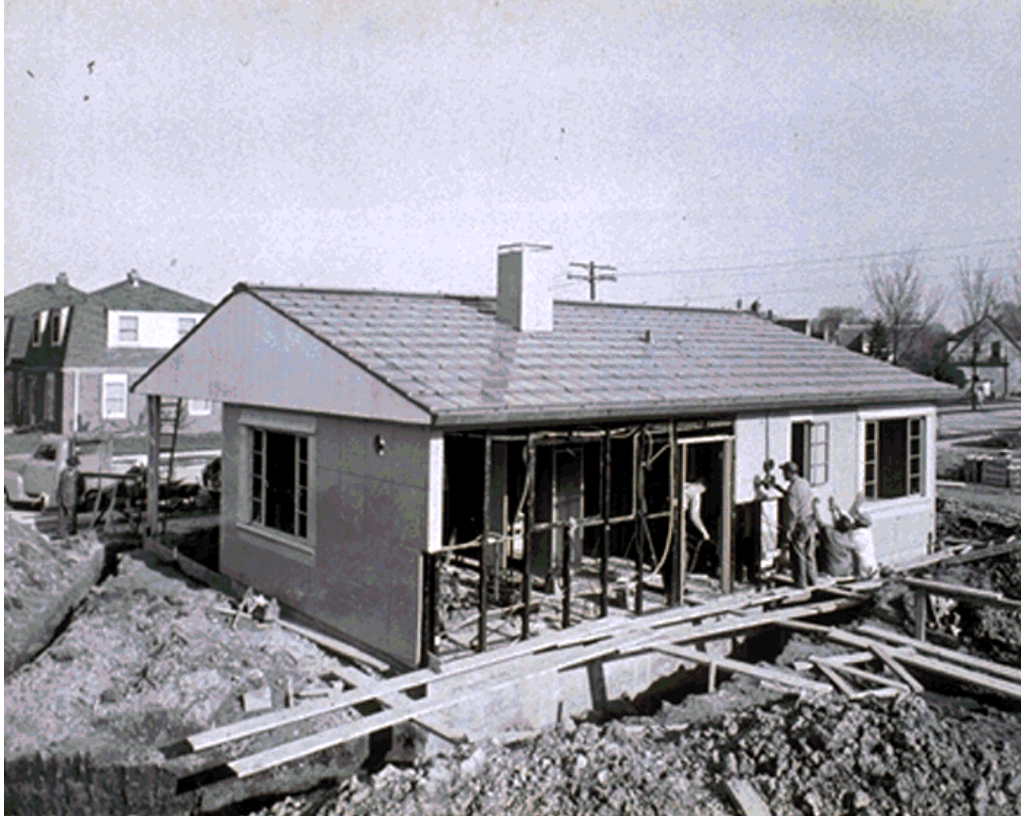
Basic structural design of a Lustron house. Source: Catalog of House Building Construction Systems, Central Mortgage and Housing Corp., Canada, 1960,

https://dahp.wa.gov/sites/default/files/Catalogue_of_House_Building_Construction_Systems_1960_0.pdf



Frame assembled. The windows were installed at the factory.

Source: National Trust for Historic Preservation via
<https://connecticuthistory.org/metal-homes-for-the-atomic-age/>



Later during construction with porcelain steel roof tiles and some exterior panels installed. Source:

<http://www.columbia.edu/cu/gsap/projs/call-it-home/html/chapter5.2.html>



*A finished Winchester Deluxe house.
Source: Lustron Corp., circa 1948*



*A similar Winchester Deluxe house circa 2011
with modern windows. Source: <http://instanthouse.blogspot.com>*



THE LUSTRON HOME

Perfect Setting for your colors and your taste



Here's how one of America's foremost decorators chose to furnish the big living room of the Lustron Home in the modern manner. It's equally "at home" with any furniture period of your choice.

YOU'LL SEE, from your very first step into the Lustron Home, that the color experts styled it with you in mind.

You'll find new freedom in your use of color—for the stylists have chosen a rich neutral background to give you almost unlimited expression of your own color talents in draperies and upholstery fabrics.

Or, if your taste desires, you may have the elegance of a smart monochromatic color scheme, with the bright color accents of lamps, pictures, books, and other accessories, in any room or throughout the house.

You'll be delighted, too, with the way the colors you choose keep their original brightness so much longer. Lustron's radiant panel heating system (completely automatic) helps

keep dirt from masking your colors because it eliminates dust-carrying currents of heated air and dust-catching radiators and grilles.

And, of course, you won't overlook such practical benefits as the built-in storage wall in the master bedroom, the wonderful closet space, the cheerful kitchen with its combination dishwasher-clotheswasher, and the big utility room.

Yes, the Lustron Home is truly America's "new standard for living." Plan now to be among the first families in your community to get the advantages of this new idea of home.

Beautiful pictures and ideas for furnishing the Lustron Home—in 16-page booklet with complete Lustron story. Send 25 cents in coin. Also new 96-page book "How to Own Your Own Home Now." Send 35 cents in coin.

Cleaning Time: Less than an hour a day

Imagine a big five-room house with more than 1,000 square feet of usable floor space that you can keep sparkling clean in a matter of minutes! That's what American engineering "know-how" provides in the Lustron Home. The lifetime beauty of porcelain enamel has been combined with the permanent strength of steel in a great new building material, applied to homes for the first time. No repainting or reroofing—and you keep it clean with a damp cloth. **© L. C.**



LUSTRON CORPORATION, Box 2023Y, Columbus 16, Ohio

Lustron advertisement in Life Magazine, 13 June 1949.
Source: Life magazine archives.

Lustron's original plans were to manufacture more than 10,000 homes per year. This production rate would have required more than 110,000 tons of steel per year, exceeding the total steel allocation in the immediate post-war period for the prefabricated house industry.

House prices initially were in the \$8,500 – \$9,500 range, which was claimed to be about 25% lower than the price of a comparable conventional wood-constructed house. Lustron prices increased to an average of about \$10,500 by the end of 1949. The price advantage over wood-constructed houses had been lost. To help improve sales, the economy Newport model was introduced in January 1950 at a price of about \$7,800.

By 1949, Lustron Corporation had 234 dealers in 35 states. Connecticut Explored reported, "Long delays in delivery to dealers did not help to bolster the reputation of the company in the eyes of the government. In July 1949, Lustron's most productive month on record, only 270 homes were built (not the approximately 3,000 per month Strandlund had promised)."

Despite a large backlog of more than 8,000 orders, the Lustron Corporation was forced to declared bankruptcy in early 1950, at which time it had accumulated \$37,500,000 in debt to the RFC. The US Senate banking subcommittee had uncovered a corruption scandal within the Lustron Corp. As a consequence, the RFC foreclosed on the company's loans, triggering the bankruptcy. Factory production ceased on 6 June 1950. A total of 2,498 Lustron homes were manufactured between 1948 and 1950.

About 2,000 Lustron homes still exist today. Many Lustron homes have received historical architectural designations, giving them some protection against future renovations or destruction.

An excellent example of restoration can be seen in the following photos of a Minneapolis two-bedroom Westchester Deluxe model manufactured in 1949 with a Desert Tan exterior porcelain finish. The following five photos are from the Preservation North Carolina website at: <https://www.presnc.org/properties/lustron-house/>



*Exterior Desert Tan porcelain finish.
Note the standard 24" x 24" exterior steel wall panels.*



Living room



*Dinette (above) with built-in cabinet and pass-through
from kitchen (below)*





Master bedroom with built-in vanity



In 2013, the Ohio History Center Museum in Columbus, Ohio opened their exhibit “1950s: Building the American Dream,” which includes a restored 1949 Lustron house that has been completely assembled inside the museum. This house is known as the Dr. Clifford M. Krowne Lustron House — Lustron #549, originally from Arlington, VA. It is a Westchester Deluxe 02 model with two bedrooms, one bathroom, and 1,085 square feet of living space. This hands-on exhibit is furnished as it might have been in the 1950s. The museum website is here:

<https://www.ohiohistory.org/visit/exhibits/ohio-history-center-exhibits>

Left: The signature Lustron porch column with integrated serpentine drain spout.

Source: Retro Renovation



*Lustron #549 at the Ohio History Center Museum.
Source, both photos: Travel Inspired Living, 24 Aug 2018 (link below)*



More information on Lustron houses is available here:

Online articles:

- Susan Halla, "The Lustron Dream – Housing and the Machine Age 1947-1951 (Part 1 of 2)," Make It Mid-Century, 8 December 2017: <https://makeitmidcentury.com/the-lustron-dream-housing-and-the-machine-age-1947-1951-part-1-of-2/>
- Susan Halla, "The Lustron Dream – Housing and the Machine Age 1947-1951 (Part 2 of 2)," Make It Mid-Century, 8 December 2017: <https://makeitmidcentury.com/the-lustron-dream-housing-and-the-machine-age-1947-1951-part-2-of-2/>
- Cynthia Liccese-Torres & Kim A. O'Connell "The Illustrious Lustron - A Guide for the Disassembly and Preservation of America's Modern Metal Marvel," Arlington, VA Community Planning, Housing and Development, Historic Preservation Program, 2007: <https://ncmodernist.org/final-lustron-documentation-booklet.pdf>
- Pam Kueber, "Lustron house #549 — reconstructed inside the Ohio Historical Society — opens July 13 (2013)," Retro Renovation, 25 June 2013: <https://retrorenovation.com/2013/06/25/lustron-house-tour-ohio-historical-society/>
- Kae Petrin, "Mid-century modern Lustron homes are still standing in St. Louis," 27 July 2017: <https://www.stlmag.com/history/architecture/lustron-homes-st-louis/>
- Neil Gale, "The History of Lustron homes - many are still standing in Illinois. (1947-1950)," Digital Library of Illinois History, 12 March 2017: <https://drloihjournal.blogspot.com/2017/03/the-history-of-lustron-homes-many-are.html>
- Leslie Horn, "The Prefabbed Lustron House is a Peep at Post-WWII America," Gizmodo, 3 April 2013: <https://gizmodo.com/the-prefabbed-lustron-house-is-a-peep-at-post-wwii-amer-5993469>
- "The Lustron House," Instant House, 10 August 2011: <http://instanthouse.blogspot.com/2011/08/lustron-house.html>

- Stacy Vario, “Metal Homes for the Atomic Age,” Vol. 8, No. 1, Winter 2009/2010, Connecticut Explored, 20 May 2020 (reproduced at the following link):
<https://connecticuthistory.org/metal-homes-for-the-atomic-age/>
- “Lustron History,” WOSU TV (producer of the documentary video, “Lustron: The House America's Been Waiting For”):
<https://www.wosu.org/archive/lustron/history.php>
- T. Lukas Petrash, “Lessons from Lustron – An analysis of the greatest attempt to solve America’s housing problem through factory mass-production techniques,” 2008:
<https://ncmodernist.org/lustronlessons.pdf>
- “Step Into the 1950’s as You Tour a Lustron Home in Columbus,” Travel Inspired Living, 24 August 2018:
<https://travelinspiredliving.com/tour-a-lustron-home-in-columbus/>

Books:

- Thomas T. Fethers, “The Lustron Home: The History of a Postwar Prefabricated Housing Experiment,” McFarland & Company; 2nd edition, January 16, 2006, ISBN-13: 978-0786426553
- Knerr, D., “Suburban Steel: The magnificent failure of the Lustron Corporation, 1945-1951,” Ohio State University Press, 2002, ISBN-13: 978-0814252734
- Charles Mintz, “Lustron Stories,” Trillium Books, 5 September 2016, ISBN-13: 978-0814213056

Videos:

- “A Lustron Legacy” (15:45 minutes), Arlington TV, 15 May 2008: <https://www.youtube.com/watch?v=NsbuZmsKGko>
- “The History of the Lustron House” (3:45 minutes), Raleigh Historic Development Commission, City of Raleigh, NC, 18 October 2017: <https://www.youtube.com/watch?v=9-LViNfidFI>
- “Ohio Historical Society -- Lustron Home” (4:44 minutes), Ohio Historical Society, 9 October 2013:
<https://www.youtube.com/watch?v=mwFonBxpDWs>