



## Interview: LEGO® Moulds

By HispaBrick Magazine®

Pictures by LEGO® System A/S

Recently LEGO® recovered around 80 historical product molds during the demolition of some disused factory buildings in Billund. These moulds had been buried in the foundation when the factory was built. There have been many rumours of LEGO putting old moulds in the foundations of new buildings to prevent them from falling into the hands of competitors, the publication of this find corroborates the practice. Then again, this happened more than 40 years ago. HispaBrick Magazine® talked to Tine Froberg Mortensen to find out a little more about this find and about the life and death of a LEGO mould.

**HBM:** How long have you been working for LEGO?

**TFM:** Since January 2011

**HBM:** What are your responsibilities?

**TFM:** I am Records Manager for the LEGO Group and I am responsible for LEGO Group Archives, which is a sub department of LEGO Idea House. In LEGO Idea House, we mediate the LEGO Group values, history and development. It is my job to make sure that all LEGO departments worldwide deliver relevant material to the archives, where we file it and make it accessible for colleagues upon request.

I also do tours for invited guests in the internal museum in LEGO Idea House, handle requests – both internal and external – and I have written the stories for the LEGO History website - <http://www.lego.com/da-dk/legohistory/welcome> So, in short, collecting, preserving and mediating the LEGO Group history, development and values.

**HBM:** What is the LEGO Archive?

**TFM:** In LEGO Group Archives, we collect relevant historical – and new – material that documents the LEGO Group history and development. As mentioned above, from all LEGO departments worldwide, but sometimes we also get material from LEGO retirees, collectors and other external people. We are five people in the LEGO Group Archives team. Four Archiving Assistants and me.

**HBM:** What elements do you keep in the Archive?

**TFM:** We keep lots of different material in LEGO Group Archives, for example:

- Documents, for example minutes of meetings, strategic plans, internal magazines, speeches, technical drawings, documentation regarding sales offices and manufacturing sites etc. – anything that documents the LEGO Group development.
- Prototypes of different elements – dating back to shapes for wooden toys up to prototypes for present themes.
- Products dating back to 1932. That means both wooden toys and plastic products, where we keep a certain amount of each set launched since 1949.
- We have artefacts dating further back. These artefacts are of course related to Ole Kirk Kristiansen, who founded the LEGO Group. As you might know, he moved to Billund in 1916 after buying Billund Joinery (100 years ago this year!!).
- Building instructions – from the first instructions of the mid-1960s to present-day ones.





- Moulds, so far dating back to around 1952. We haven't opened all the moulds from the newly demolished Hoejmarksvej factory yet, so maybe we will find even older moulds.
- Machines – for example moulding machines, and other machines from our closed moulding shops.
- Pictures/photographs – I believe the oldest in the collection is from late 19th century and the oldest of Ole Kirk Kristiansen is from 1911.
- Prizes/diplomas received by the LEGO® Group.
- Art (sculptures, paintings, etc.)

It is essential that material included in the archives is either produced by the LEGO Group or otherwise has a close relation to the LEGO Group.

**HBM:** What is the purpose of the LEGO Archive?

**TFM:** To preserve relevant material and make it accessible for colleagues (unless classified of course).

**HBM:** What is the average lifespan of a mould?

**TFM:** As far as I have been informed, it varies according to the complexity of the mould. Some moulds have done more than 25 million "injections", but usually the number is between 8 to 10 million.

The moulds are of course cleaned while they are in use. Usually after 500,000 "injections", depending on what material is used for the elements.

**HBM:** What happens to a mould once its lifespan is over? It is said that discarded moulds are buried under new buildings. Is that (still) true?

**TFM:** Apart from the newly demolished Hoejmarksvej factory, we know that there are moulds cast in the foundation of the Kloevermarken factory and probably also the Kornmarken factory. It was probably an easy way to discard old moulds and at the same time make sure that they wouldn't fall into the wrong hands. All above-mentioned factories are placed in Billund.



*Moulds from the demolition of Hoejmarksvej factory as they looked when LEGO got them*

At Kloevermarken and Kornmarken the moulds were cast in concrete but at Hoejmarksvej, they were buried in sand – which is why we can separate them and open them today.

When the new Nyiregyhaza factory in Hungary was opened in 2003, a time capsule was laid in the foundation to mark the building of the factory. The time capsule contained a Danish Flag, a Hungarian Flag, the layout of the factory, the latest copy of the local newspaper and Danish and Hungarian coins.

After the company stopped casting its old forms in concrete, it switched to having them melted down by a Danish steel rolling mill. This practice continued until 2002, when the steel rolling mill went bankrupt and ceased to operate.

Since 2002, obsolete moulds are shipped to the LEGO factory at Kornmarken, Billund, which organises destruction of the moulds. This also applies to moulds from our factories in Mexico, Czech Republic and Hungary. The obsolete moulds are destroyed by a "burner" cutting a hole through the moulds, melting the cavities and rendering the moulds useless.



*Mould 6 trees used for the Town Plan, which was launched in 1955*

**HBM:** Is there a specific department in charge of mould design?

**TFM:** Yes – and we have had our own moulding shops since 1953. To make sure that the moulds were of the right quality, it was necessary to make our own moulds. A few years later, we established moulding shops in Vejle (30 kilometres from Billund) and Hohenwestedt in Northern Germany, where we opened our first foreign sales office in 1956. In 1974, we established a mould shop in Switzerland. They are now all closed.

The Mould Manufacturing Workshop department has two functions: mould qualification/testing and mould making.

The Mould Qualification department tests the moulds the company receives from its four external mould makers, which have supplied moulds since 2005. It also adjusts moulds or repairs worn moulds, which are still suitable for use.

#

