



# LEGO-brick® builds: Identifying heritage-relevant sets

## Pedro Miguel da Silva Fernandes<sup>1</sup>.

## ABSTRACT

The LEGO® brand is well known by everyone and needs no introduction, such is the notoriety it represents today among the public. Throughout its history, it has developed numerous sets alluding to the most varied themes. The objective of this article is to identify the sets that constitute relevant representations from the heritage point of view (monuments/views of cities). From the methodological point of view, bibliographic research and documentary research were used. It was concluded, from the various examples found, that heritage widely recognized worldwide has been represented by the brand's sets, namely: Eiffel Tower, London Bridge, Taj Mahal, among others.

Keywords: LEGO®, Heritage, Monuments, City Views.

## INTRODUCTION

LEGO® buildings have been part of the lives of countless generations since 1932, the year in which the brand was born in a small town in Denmark, called Billund.

At the time of its creation, the development and success it would achieve over the years was not imagined. Today, it is a universal company, with thousands of sets launched on the market, more than 18,000, as evidenced by the websites of LEGO® (2022), BRICKSET (2022) and BRICKLINK (2022a).

Fans of the brand also promote the development of new MOC - *My Own Creation*. In this context, the creativity of designers/artists seems to know no limits, seeking to represent all kinds of scenarios.

Usually, the dissemination of the brand's own sets and MOCs takes place at events/exhibitions, enhancing event tourism and bringing added value to the territory in which they take place.

Throughout this article, we seek to understand, from the universe of sets launched by the brand, which of them constitute representations of important heritage, more specifically with regard to monuments/views of cities.

## BACKGROUND

LEGO® has been developing numerous models, addressing the most varied themes. Nowadays it is a universal company, with the notoriety of its constructions being recognized worldwide. It is a "(...) market-leading toy, (...)" (CHIAMULERA, 2016, p. 15).

The term LEGO® results from the expression "Leg Godt" or, translating, "playing well", as

<sup>&</sup>lt;sup>1</sup> Doctoral student in Geography at the Faculty of Arts and Humanities of the University of Coimbra and Collaborating Researcher at CEGOT - Centre for Studies in Geography and Spatial Planning



#### CINTRA et al. refer to. (2016, p. 4) and BARBOZA (2016, p. 45).

The brand had its beginnings in 1932 by the hand of Ole Kirk Christiansen who, faced with the commercial difficulties of his carpentry shop, decided to opt for the production of wooden toys.

Some authors highlight a marked growth of the brand in the period 1950-1960. According to LAUWAERT (2009, p. 50) plastic began to be used by the company "(...) at the end of the 1940s (...)". In fact, essentially from 1950 onwards, with the massification of the use of this material, the first blocks ("bricks") of the coloured pieces appeared, which would eventually make it possible to build countless sets, with no limits to the imagination of users.

The brand has evolved very significantly over time, starting with the creation of a considerable number of new collections and boosting the creation of theme parks. For example, "In 1966, the toy gets a small electrical system, the LEGO® Train System. With the brand consolidated and its toys known worldwide, the first LEGOLAND® Theme Park was born, in Billund.", as CINTRA *et al. point out*. (2016, p. 5).

According to ARMELIN *et al.* (2016, p. 31), "The 70s were marked by the growth of sales and expansion to other countries, investing in the area of marketing, manufacturing and distribution.". In this period, the sets were not yet very complex, as BREEMS (2015, p. 48) points out: "The sets in the seventies were not yet that big or elaborate; (...)".

In the 90s, as reported by ALEXANDRE *et al.* (2015, p. 6), "(...) The brand launched the first licensed sets with famous characters, a resource used to this day, as a way to attract more consumers". In turn, ARMELIN *et al.* (2016, p. 33) argue that "In 1992, the company entered the Guinness World Records Book, using LEGO® products - a castle built with 400 thousand LEGO® bricks, with the dimensions of 4.45 meters by 5.22 meters, for a television channel in Sweden; and a 545-meter-long LEGO® railroad, covered by three locomotives."

Over the years, we have witnessed the birth of numerous collections focusing on the most varied themes, such as: Vikings, Western, Exo-Force, Creator, among many others. According to KAWAHARA, (2019, p. 17): "In this market trajectory, Lego has created dozens of "sets" (themed worlds), from castles, boats, trains, cities, spaceships".

Regarding technological evolution, KAWAHARA, (2019, p. 20), points out the benefits of the internet in the brand: "In the emergence of the Internet, there is the creation of "wikis" world of collaboration for these users, with photo galleries, assembly manuals, sale of parts and accessories, and sales of minifigures".

In LEGO®'s journey, we cannot fail to highlight the influence of cinema, which was an important source of inspiration for the brand, eventually giving rise to various collections associated with some cinematographic successes, such as Star Wars, Lord of the Rings, Harry Potter, Batman, among many

others.

On the other hand, in this context, it is also important to mention the films The Lego® Movie 1 (2014) and The Lego® Movie 2 (2019), and the animated television series, namely Lego® Hero Factory (2010), Lego® City Adventures (2019), among others.

Video games should also be mentioned, of which we can highlight, among many examples, Lego® Creator (2001) and Lego City® - Undercover (2013).

Currently, it can be seen, by analyzing the indicated sites, that the number of sets of certain collections increases significantly with each new year. LEGO® is constantly committed to innovation. Its teams seek to develop creative and innovative sets, including taking advantage of information technologies, and even robotics, with more technical and educational sets, such as LEGO® Mindstorms.

The brand's commitment to virtual reality and augmented reality is also visible. For example, through an application, installed on the smartphone or tablet, by pointing the device at some sets of the LEGO® Hidden Side theme, it becomes possible to add lightning, clouds, or even new characters, thus allowing the user to be immersed, almost as if it were a character from the model itself.

When we talk about the LEGO® brand, we realize that we are in the presence of a toy with didactic characteristics, which favors the development of imagination, learning and creativity.

But it's not just children who are most influenced by this type of toy. Adults are also aficionados of the brand, many of them used LEGO® constructions in their childhood days, and the taste for the brand ended up remaining throughout their lives. The movement of adult fans of the brand is called AFOL - Adult Fans of LEGO®. Interested parties are encouraged to build new models, usually called MOC - *My Own Creation*.

We can then frame, on the one hand, the sets developed by the brand, that is, models created with the aim of large-scale commercialization and, on the other hand, the MOC, artists/designers' own creations.

The collecting of this brand is a common practice. Naturally, as in any other type of collection, the rarity of the set, the antiquity and condition of the pieces, the condition of the boxes and the original instructions are the most common differentiating factors.

The dynamics and dissemination of LEGO® has been expanded thanks to several institutions/associations, of which we can highlight the community0937 (2022), a group of aficionados created in 2006 with the dynamism of the theme in mind. It promotes forums, exhibitions and competitions on the subject at national level.

We can also mention PLUG (Portuguese Association of LEGO® Users (2022) and AlfaLug (community of builders) (2022), both responsible for organizing numerous events and exhibitions at national level, with the support of other institutions, such as local authorities. Their websites were

consulted in search of relevant information.

#### **OBJECTIVE**

The objective of this study is to investigate, from the various themes/sets that the brand has been making available in the market, those that are most important in the scope of heritage representation (monuments/views of cities).

#### METHODOLOGY

For the development of this article, we used two methodologies: bibliographic research and documentary research.

It began by starting a bibliographic research on the company under study and followed the theoretical influences of GIL (2008). The author argues that "Bibliographic research is developed from material already prepared, consisting mainly of books and scientific articles" (GIL, 2008, p. 50).

In the data collection process, the following three sources were considered: Scopus, Web of Science and Google Scholar. The time period 2000-2022 was taken into account and the following expressions were used: "LEGO history", "LEGO heritage", "LEGO constructions", "LEGO MOC", "LEGO Catalogues". The terms and expressions have also been translated into English: "LEGO history", "LEGO heritage", "LEGO catalogues".

Still in the context of literature research, according to information provided by BRICKSET (2022) and BRICKLINK (2022a), the LEGO® brand has a number of more than 18,000 sets. A detailed analysis of each of the collections and their sets was developed from the indicated sites.

The biannual editions of the digital leaflets (January-June 2021 and July-December 2021) were also analysed

From the methodological point of view, it was also considered a documentary research. Considering that in contexts based on documentary research "(...) the first step consists of the exploration of documentary sources, (...)" (GIL, 2008, p. 51), an analysis of paper catalogs, a biannual publication of the brand and one of the privileged channels of dissemination, in which the new sets made available to the public are announced, was developed. Some catalogs available in physical format in the author's collection were analyzed and identified as follows: 2010 (only one released this year), 2011 (only one released this year), 2012 (only released this year), 2013 (January-June), 2013 (July-December), 2014 (January-June), 2015 (July-December), 2016 (January-June), 2016 (July-December).

The criterion was taken to consider only those sets that constituted an elucidative representation of monuments or focused on views of localities.

## RESULTS

The following four collections were considered to have the highest level of relevance: LEGO® | Architecture, LEGO® | Creator Expert, LEGO® | Disney & LEGO® | Icons. In these collections/themes it was possible to find models of constructions related to monuments/views of cities with an emblematic character.

In the first theme, LEGO® | Architecture, we came across mini constructions of widely known monuments, such as The Empire State Building (ref: 21002), the White House (ref: 21006), the Buckingham Palace (ref: 21029) and, more recently, in 2022, The Great Pyramid of Giza (ref: 21058), among others. In this same collection it was also possible to find more or less detailed perspectives of some famous cities, of which we can highlight Chicago (ref: 21033), Las Vegas (ref: 21038), London (ref: 21034), among others.

The models selected in the second theme, LEGO® | Creator Expert, are characterized by a higher level of detail and a greater dimension of the respective monuments/city views portrayed. We are in the presence of models with a higher degree of complexity, in which the total number of pieces used can reach very significant values, this is the case of the representation of the two versions of the famous Taj Mahal (ref: 10189 and ref: 10256), both with more than 5,900 pieces. These sets have large dimensions. According to BRICKLINK (2022b), they are 65.3 x 47.6 x 12.2 cm.

As part of the third theme, referring to the LEGO® | Disney, we proceed to the selection of the emblematic Castle (ref: 71040). It was the set considered most relevant from the patrimonial point of view. It consists of more than 4,000 pieces and is a replica of Cinderella's Castle available at the Disneyland theme park (Orlando/USA).

Finally, on the LEGO® | Icons, the fourth one taken into consideration, and launched more recently (2020), in which alludes, among other sub-themes, to various world constructions, we highlighted three relevant sets in terms of heritage representation: the imposing Colosseum (ref: 10276), with more than 9000 pieces, the Camp Nou - FCBarcelona stadium (ref: 10284) and also the Real Madrid - Bernabéu Stadium (ref: 10299).

Within the scope of the four collections indicated, it was found that there is a wide variety of monuments, ranging from historical heritage (Taj Mahal, ref: 10189), through buildings with a more touristic character (Eiffel Tower, ref: 10181), to references to more recent sports heritage, such as the well-known Bernabéu Stadium, ref: 10299.

On the other hand, it was possible for us to find buildings that encompass monuments/views of cities located in the most varied parts of the world, covering geographies such as: London (Big Ben, ref: 21013), Paris (Eiffel Tower, ref: 10181), India (Taj Mahal, ref: 10189), Egypt (The Great Pyramid of Giza, ref: 21058), New York (Statue of Liberty, ref: 21042), among others. The Vestas Wind Turbine (ref:



10268), takes us on an imaginary journey to the top of the mountains, illustrating in a very realistic and detailed way the structure of a wind tower.

It should be noted that, many times, some of these sets were made available in limited editions, which ends up being reflected in an increase in their monetary value in terms of collecting.

Chart 1 lists the most relevant sets from the point of view of heritage representation for each of the four themes mentioned. The name of the theme/set, the reference and the respective year of market launch are indicated.

 Table 1 - List of most relevant sets. Source: Building from research on the LEGO® (2022), Brickset (2022) and Bricklink (2022a) websites

Theme/Set	Reference	Year
LEGO®   ARCHITECTURE		
Sears Tower	21000 - 1	2008
Willis Tower	21000 - 2	2011
John Hancok Center	21001	2008
Empire State Building	21002	2009
Seatle Space Needle	21003	2009
Solomon Guggenheim Museum	21004	2009
The White House	21006	2010
Rockfeller Center	21007	2011
Sydney Opera House	21012	2012
Big Ben	21013	2012
The Leaning tower of Pisa	21015	2013
United Nation Headquarters	21018	2013
The Eiffel Tower	21019	2014
Flatiron Building, New York	21023	2015
Louvre	21024	2015
Berlin	21027	2016
New York City	21028	2016
Buckingam Palace	21029	2016
United States Capitol Building	21030	2016
Sydney	21032	2017
Chicago	21033	2017
London	21034	2017
Solomon R. Guggenheim Museum	21035	2017
Arc de Triomphe	21036	2017
Las Vegas	21038	2018
Great Wall of China	21041	2018
Statue of Liberty	21042	2018
San Francisco	21043	2019
Paris	21044	2019
Trafalgar Square	21045	2019
Empire State Building	21046	2019
Las Vegas	21047	2018
Tokyo	21051	2020
Dubai	21052	2020
The White House	21054	2020
The Taj Mahal	21056	2021
Singapore	21057	2022
The Great Pyramid of Giza	21058	2022
LEGO®   CREATOR EXPERT		
Vestas Wind Turbine - 1st version	4999	2008
Eiffel Tower	10181	2007

Taj Mahal - 1st version	10189	2007
Tower Bridge	10214	2010
Sydney Opera	10234	2013
Big Ben	10253	2016
Taj Mahal - 2nd version	10256	2017
Vestas Wind Turbine - 2nd version	10268	2018
Old Trafford Manchester United	10272	2020
LEGO®   DISNEY		
Disney Palace	71040	2016
LEGO®   ICONS		
Colosseum	10276	2020
Camp Nou - FC Barcelona	10284	2022
Real Madrid - Santiago Bernabéu Stadium	10299	2022

# FINAL CONSIDERATIONS

In this article it was possible to see the dynamics of the LEGO® company's models in the representation of heritage (monuments/city views).

From the analysis of the various themes/models of the brand, it was obtained, essentially from the year 2008 onwards, a considerable number of sets alluding to heritage relevant from a historical point of view, views of cities and tourist monuments framed in different parts of the world.

The most important collections identified in this context were: LEGO® | Architecture, LEGO® | Creator Expert, LEGO® | Disney & LEGO® | Icons. Within these themes, various ensembles stand out, namely: Taj Mahal, Eiffel Tower, London Bridge, Sydney Opera House, Disney Palace, Real Madrid -Santiago Bernabéu Stadium, etc.



#### REFERENCES

- Alexandre, L. B., Garcia, L. S. B., & Vieira, S. M. F. (2015). Lego: 50 years making history. The dialogue between text and culture. In XXXVIII Congresso Brasileiro de Ciências da Comunicação (pp. 1-10). Rio de Janeiro, September 4-7, 2015. Available at https://www.portalintercom.org.br/anais/nacional2015/resumos/R10-1435-1.pdf. Accessed on July 12, 2022.
- Alfalug Facebook. (2022). Available at https://pt-pt.facebook.com/alfalug.alfalug/. Accessed on September 12, 2022.
- Armelin, D., Da Silva, G. E., De Farias, M. M., & Da Cunha, C. F. (2016). The strategic school of learning (learning by interacting): A case study of LEGO®. Revista Científica UNAR, 12(1), 11-41. Available at https://www.researchgate.net/publication/304117724\_A\_escola\_estrategica\_da\_aprendizagem\_Lea rning\_by\_Interacting\_um\_estudo\_de\_caso\_da\_empresa\_LEGOR. Accessed on July 12, 2022.
- Barboza, D. (2016). Creativity and innovation in production: Making it happen A case study of LEGO (Bachelor's thesis). Faculdade de Tecnologia de Americana, São Paulo. Available at http://ric.cps.sp.gov.br/bitstream/123456789/311/1/20161S\_BARBOZADouglasHeitor\_CD2566.p df. Accessed on October 6, 2022.
- Breems, M. M. A. (2015). The story of Lego City: A study of the representation of the city in LEGO (Master's thesis). Radboud University Nijmegen. Available at https://theses.ubn.ru.nl/items/e596bf96-a8b7-48ae-84e4-2c41047b6acb. Accessed on October 27, 2022.
- Bricklink. (2022a). Sets. Available at https://www.bricklink.com/catalogTree.asp?itemType=S. Accessed on August 9, 2022.
- Bricklink. (2022b). LEGO Catalog 10189. Available at https://www.bricklink.com/v2/catalog/catalogitem.page?S=10189-1#T=S&O={%22iconly%22:0}. Accessed on August 9, 2022.
- Brickset. (2022). Sets. Available at https://brickset.com/sets. Accessed on September 12, 2022.
- LEGO® Catalog, Paper Version. (2010).
- LEGO® Catalog, Paper Version. (2011).
- LEGO® Catalog, Paper Version. (2012).
- LEGO® Catalog, Paper Version. (January-June 2013).
- LEGO® Catalog, Paper Version. (July-December 2013).
- LEGO® Catalog, Paper Version. (January-June 2014).
- LEGO® Catalog, Paper Version. (July-December 2014).
- LEGO® Catalog, Paper Version. (January-June 2015).

LEGO® Catalog, Paper Version. (July-December 2015).

LEGO® Catalog, Paper Version. (January-June 2016).

LEGO® Catalog, Paper Version. (July-December 2016).

- Chiamulera, C. (2016). Lego zoom: A playful learning tool (Bachelor's thesis). Universidade Federal de Santa Catarina, Florianópolis. Available at https://repositorio.ufsc.br/handle/123456789/167301. Accessed on September 22, 2022.
- Cintra, F. C. E., Aguiar, H. C. B., & Gollner, A. P. (2016). LEGO® brand management: From bankruptcy to the most powerful brand in the world. In XXI Congresso de Ciências da Comunicação na Região Sudeste. Available at https://www.portalintercom.org.br/anais/sudeste2016/resumos/R53-0079-1.pdf. Accessed on September 12, 2022.
- Comunidade0937. (2022). Available at https://comunidade0937.com/portal/. Accessed on September 14, 2022.
- Gil, A. C. (2008). Methods and techniques of social research (6th ed.). São Paulo: Editora Atlas.
- Kawahara, S. (2019). The use of LEGO blocks: A proposal for constructing historical knowledge (Bachelor's thesis). Universidade Tecnológica Federal do Paraná, Curitiba. Available at http://repositorio.utfpr.edu.br/jspui/handle/1/19639. Accessed on July 21, 2022.

Lauwaert, M. (2009). The place of play: Toys and digital cultures. Amsterdam: Amsterdam University Press. Available at https://pdfs.semanticscholar.org/ad2c/5a8d1c4a3cd83af3c6c61f16319e53fcc576.pdf. Accessed on August 1, 2022.

LEGO. (2022). Available at https://www.legostore.com.br/. Accessed on July 8, 2022.

Plug. (2022). Available at https://www.plug.pt/. Accessed on August 7, 2022.