

# **Playmobil as a construction toy**

**white paper for the collaboration  
between Geobra Brandstätter  
and the  
Playmobil Collectors Club**

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(in behalf of the test group board)

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# 1 Introduction

We, collectors and passionate Playmobil fans around the world, are fascinated by the universality and quality of all klickies, single parts, and buildings. We adore the passionate and thoughtful design of Playmobil as a toy that Geobra has developed in the footprints of genius Hans Beck.

Most of the collectors are grown-ups – mostly getting hooked on Playmobil as a kid and/or with their own kids – we have a grown-up point of view into our Playmobil universe. In that way we are significantly different from Geobra's target group, kids of age 3 to 14. Grown-up collectors not only care more about building flexibility and historical accuracy, they typically also have more resources to be devoted to their hobby, planning for much bigger projects than any kid would do. In a time when kids grow faster and stop playing earlier with every year, the gap between the collector's demands and the market survey is growing bigger. The sets are getting smaller, include fewer accessories, and start to come in comic-like fantasy colors that small kids tend to prefer.

We strongly believe that Geobra should not focus on this consistently shrinking target group, but should rather extend a potential that Playmobil designers have worked on for decades but never really established in the market: The use of Playmobil as a construction toy. Such a use would enter a completely new segment, which might include older kids far into the teenager segment. So far, most of the approaches from Geobra to make Playmobil a construction toy are immature and half-hearted. We as a community have already started to establish several projects to close these gaps. We will introduce them in the following document.

With successful social networking, Geobra could integrate these kids into the collectors community. In this way animating them to collect their toys and keep their own creations, and thus reach a cult status even in difficult markets like the US over the long term. Furthermore, we will propose several ideas on how an official collectors club might significantly contribute to the process of Playmobil becoming a brand also known for their ability as a construction toy.

From our point of view, these new ways are already paved by the existing approaches from both sides and just wait to be interconnected in the official collectors club.

## 2 Preliminaries

Playmobil has a tradition in designing modular building parts. This is why there are already two building systems (Steck and SysX) that have the potential to be extended into a universal building system. But both of these systems are not complete in terms of availability (steck is out of production and was limited mainly to the castle system, SysX is used in various themes but typically very set specific in their standards and colors) and universality (again some parts are very set specific and are not available in all varieties).

It seems that Geobra's principal decisions regarding the design patterns were mostly triggered by production and/or the service aspects of the parts and not the universality of the building system. Furthermore, the creative modeler these days is condemned to buy big complete sets or hundreds of separate spare parts to extend his pool of building parts. There have never been any basic building sets for either building systems, Steck or SysX.

On the other hand, there is a well-organized subculture of collectors that have established with tremendous effort several projects that make the use of Playmobil as a construction toy possible and much easier. The result is evident when looking at big events like the conventions in Wolfsburg and the huge fan conventions in Spain and other countries all around the world.

In the following, we will give a short summary of what has been done already on both sides, by the collectors and by Geobra.

### Collectors

#### 2.1 PlaymoDB

In discussions on custom-made buildings, it is inevitable to share information on the parts used, colors and variants, and of course their current availability in sets as well as at the direct service (DS). As Playmobil has already released thousands of sets and several ten-thousand parts, discussions like these in the online-community rely up to 99% onto a huge and very complete database of Playmobil parts, Heather Patey's PlaymoDB<sup>1</sup>. This database already includes more than 20.000 parts from more than 3.200 sets. All these parts are scanned and integrated into the database by devoted collectors that support the Canadian collector Heather Patey as well as they can.

Consequently, this site has become an integrated part of the community and its continuing support is inevitable for the use of Playmobil as a creative toy. Questions for existing parts and colors can only be answered efficiently if all these parts are in a database that is available to the community.

This project is a non-profit private project, owned and hosted by Heather Patey. This project is additionally funded by collector's donations.

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<sup>1</sup>[www.playmodb.org](http://www.playmodb.org)

**PlaymoDB Part Info for "Wall, plain, stonework, 1 unit wide (System X)"**

Part Number: 30 20 6520  
 Colour: light grey  
 Category: [Building \(Castle wall\)](#)  
 Source: playmoboy's instructions



30 20 6520

**Found in sets:**

<p>3023 🌈 Fort Eagle</p>  <p>4 figures  <a href="#">Inventory</a>            Parts inv'd = 76 of 76</p>	<p>3112 🌈 Naval Stronghold</p>  <p>4 figures  <a href="#">Inventory</a>            Parts inv'd = 97 of 97</p>	<p>3285 🌈 Lagoon</p>  <p>3 figures  <a href="#">Inventory</a>            Parts inv'd = 137 of 137</p>	<p>3288 🌈 Pirate's Prison</p>  <p>4 figures  <a href="#">Inventory</a>            Parts inv'd = 97 of 97</p>	<p>3938 🌈 Pirate Lagoon</p>  <p>3 figures  <a href="#">Inventory</a>            Parts inv'd =</p>
<p>4072 🌈 Fort Reno</p> 	<p>5727 🌈 Pirate Dungeon</p> 	<p>5775 🌈 Pirates' Attack</p> 	<p>7936 🌈 Fort</p> 	

**Figure 1:** Heather Patey created with [www.playmodb.org](http://www.playmodb.org) a platform used by collectors to search for sets, co-occurrence of parts, or for the allocation of klickies into their sets. On each page there is also a ready-made link to be used at discussion boards, where most of the discussions on custom buildings take place.

## 2.2 Collectobil

The webpage [collectobil.com](http://collectobil.com)<sup>2</sup> is still online, but has not been updated for several years now. It includes an online-catalog that consists of a lot of modern and vintage sets and is a very good online-resource to be used by collectors due to its nice accessibility and design. It might be not far from the truth to call this page more popular than the official Playmobil set archive, which is much harder to look through, especially when looking for sets from a certain period.

Here, it should be especially emphasized that the dutch collector Bart De Smet (the creator of this page) not only offered an archive but also some moderated content, including a section on custom-made buildings. With this, he demonstrates impressively, how a webpage of an official collectors club could look: Competitions for custom-made figures and buildings (see Fig 2), an assortment of hand-made movies as well as a selection of pictures from Playmobil-related events and exhibitions.

<sup>2</sup>[www.collectobil.com](http://www.collectobil.com)



**Figure 2:** Bart De Smet presented with [www.collectobil.com](http://www.collectobil.com) a moderated webpage including not only a nice online-catalog of Playmobil-sets but also featuring fascinating custom buildings and fan-based competitions. We esp. refer to the section "Pick of the Month" that featured a new custom building every month, based on original sets. Shown here is a nativity set, consisting of parts mainly from two pirate sets, the naval stronghold (3112) and the pirate lagoon (3938). Unfortunately, there are no recent updates on this webpage.

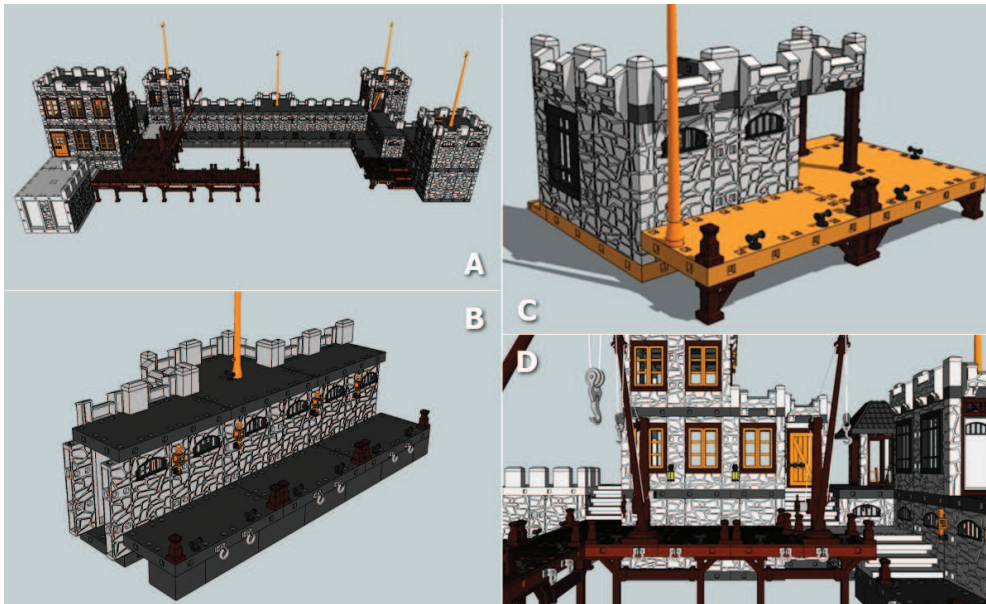
## 2.3 Google-SketchUp

Using the (for private use) freely available CAD-software Google-SketchUp<sup>3</sup>, the German collector SirPleamo started a new and impressive approach to make a 3D-CAD-environment for virtual planning available to everyone. This is a very valuable contribution to the community, as it not only helps with long-term planning by several collectors not living in the same area, it also offers a so far unknown option of sharing building instructions of custom buildings with the community.

And of course, a collector can also dream and construct epic buildings independent of the actual number of parts he owns. Finally, it would also be possible to design new parts that are still missing in the existing assortment of Playmobil parts and potentially communicate a valuable suggestion for a new part to the Playmobil design department.

In Figure 3.B, a modular wall segment is shown, which could have been released together with the naval stronghold 3112 (3.C), as an extendable system available e.g. as DS-bags. The parts from this segment are very flexible in their use and several of them could be combined to build large main buildings like e.g. shown in Figure 3.A+D.

<sup>3</sup><http://sketchup.google.com>



**Figure 3:** SirPleamo demonstrates how his Partbox can be used to extend Playmobil buildings virtually. Here again, it is shown how the naval stronghold is extended to a much bigger stronghold, consisting of a various number of parts from the set 3112.

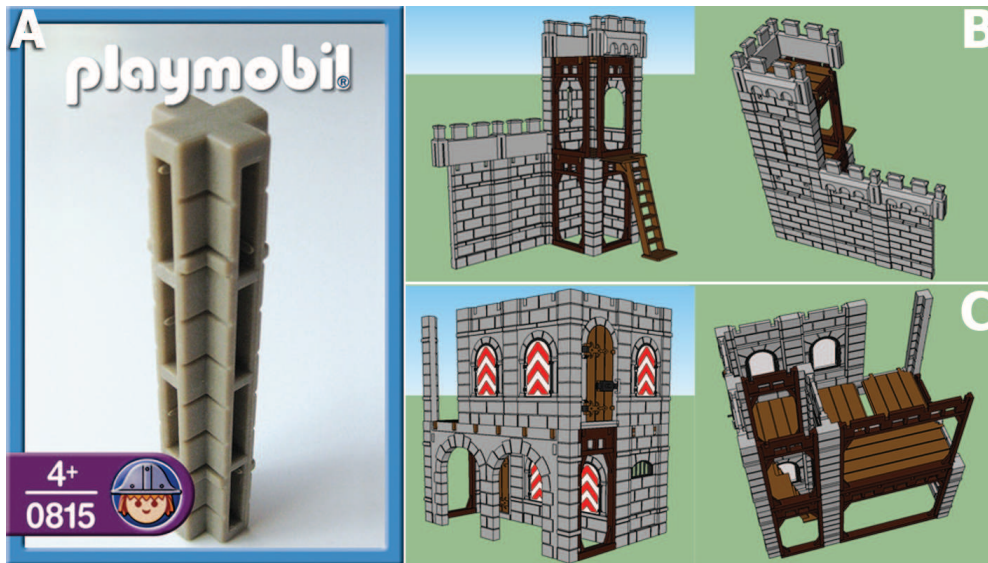
## Geobra

### 2.4 DS

As already mentioned above, due to the actual situation, collectors have to rely (if available) on the direct service (DS), which is originally initiated to support customers with spare parts and to handle complaints. With the growing market, there are several DS offices worldwide that differ in the parts available and the services offered. Several countries do not have access to any kind of DS and have to rely completely on support from other collectors and/or online platforms that offer international sales.

### 2.5 ETNs

Each part ever produced by Geobra has a unique spare part number (Ersatzteilnummer - ETN), which makes it easy to be identified and easy to be ordered from the DS. The numbers are written in the building instructions leaflet and are also used to organize PlaymoDB (see Section 2.1).



**Figure 4:** Collectors sent hundreds of postcards to Playmobil and promised to buy thousands of stone colored 4 way steck connectors, a useful piece that only existed in a wooden variant from the vintage steck farm sets 3716 and 3769 (A). Many collectors are still using the discontinued steck system for their creations. They dream of new DS sets (e.g. B+C) to extend their collections. B + C are created by the german collector Henry\_Martini using the SketchUp-Toolbox (see section 2.3).

## 2.6 Building Systems

### Steck

Steck was introduced as a building system for the knights castle back in 1977. It was a very successful building system, including several DS-extensions and a whole set of castles that could all be combined into a huge whole. There is still a big fraction of collectors who are exclusively building with these parts and are very desperate for its re-release.

The wide-spread use of steck within the collectors community has caused several initiatives to bring the steck system back into production, the last one resulting in the request for a grey 4 way steck connector (see Figure 4.A). The collectors who are still building exclusively with steck pieces dream of new DS extensions to make their buildings independent from used playmobil purchased at flea markets and online platforms. In Figure 4.B and C, two DS extension sets are shown (assembled with SketchUp) that collectors from the pilot group dream of.

Saying so, Steck has been discontinued by Geobra some years ago but is still part of several actual sets (see e.g. the castle super set 4133).

## **SysX**

SysX was introduced in 1997 as a building system for city houses. It is not based on steck connectors but on little bits that can be replaced when damaged, which makes these sets very robust. The design pattern is very similar to those used within the steck system: It also uses a pattern of larger wall pieces interconnected by smaller columns. Additionally, it features base plates that are not available for Steck.

Later it was extended to almost all themes within the Playmobil world, including the knights theme.

### 3 Case Study - Chinese Teahouse based on the Secret Agents HQ (4875)



**Figure 5:** The set 4875 is a modern world futuristic agent headquarter with a secret vault inside of the rocks the building is build on. It has been released in 2010 in Europe and will be released in 2011 worldwide. It is based on the SysX building system.

For a first case study, we will take the brand-new prize-awarded<sup>4</sup> Secret Agents Headquarter (4875) that is not yet released all over the world, but in Europe. This set is a beautiful set taken from the TopAgents-theme, which is the best selling theme in 2010 (in Germany). It is designed using SysX and consists of about 150 parts (not all for the building). Naturally, a set like this should be a big extension for all existing creative Playmobil worlds, as it includes several brand-new pieces that all have the potential to be included in other buildings.

#### 3.1 customization

The set comes with big rocks and a secret vault, so it appears like a wonderful extension for knight, pirates and other historical themes. The German collector Playmod-

<sup>4</sup>Toy Innovation Award 2010, Top10-Toy 2010



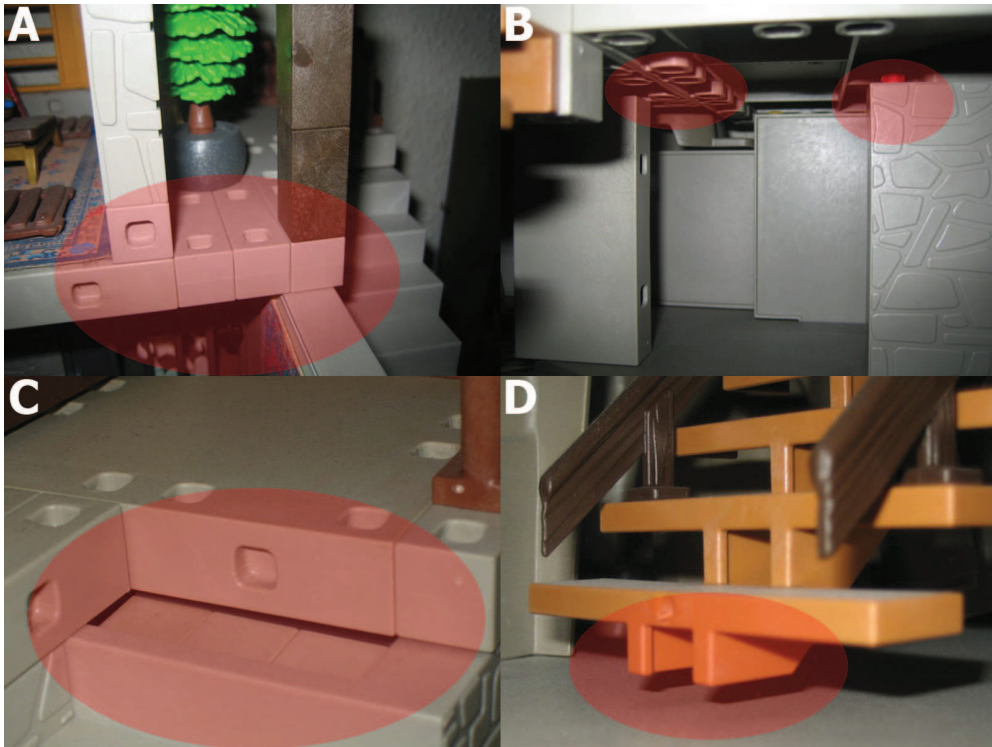
**Figure 6:** Playmodschungel extended the set 4875 with a lot of existing SysX elements from various sets. The resulting building resembles a truly amazing building with a lot of Asian charisma.

schungel thought the same and started customizing this building into a Japanese tea house, including a hidden opium den in the rock basement.

She used parts from several SysX-sets to compose the main building: Among several small parts, sets involved include the 4400 Post Office, 4826 Wild Animal Care Station, 3112 Naval Stronghold, and 4290 Pirate Ship. She also used several parts in a completely new way: E.g. the Chinese lantern originally is the lantern from the 4290 pirate ship, and the wooden posts from the 3112 naval stronghold serve as suspended beams at the roof.

### 3.2 common interest

The customers will appreciate a toy set that is flexible and can be used in many ways. Basically, there would be the option to release a single set, which comes perhaps with instructions resulting in three different buildings. This would be something to be established in the design department at Geobra. They also could develop alternative



**Figure 7:** The redesigned set 4875 does not fit into the classical SysX building system. Only with a lot of limitations, it is expandable using SysX-parts from other sets. This is a clear construction design flaw.

designs and just release one of them as an ordinary set and afterwards release the other two as extensions via the DS.

The collectors community could be asked (e.g. in a competition) to design new buildings using several sets or parts and the winning entries could be either released as virtual content (i.e. downloadable building instructions) or again as DS-bags for everyone to easily extend the basic set.

A third option would be to release three or even more sets that can finally be combined for getting a new, huge building (e.g. several small Victorian shops that combine to a huge theatre or small Indian houses that can be combined to a Taj Mahal). Again, once there is a universal building standard, the possibilities will be infinite.

### 3.3 problems to be solved

The new sets consist of larger and larger parts – mainly to reduce construction time. This is nice for the easy assembly of a huge castle or pyramid, but it is a step back from a flexible building system. Initially, SysX started as being a flexible toy with a fixed raster of holes for walls, columns, and other building parts. Often, easy to be seen in this set, the Playmobil design violates this standard and counteracts the idea of a general construction toy. The tea house demonstrates the impact of this bad design in almost all possible aspects:

- Figure 7.A shows that the wall-to-wall distance of the base plate is larger than the standard wide, making it necessary to use several small connecting strips to fill the remaining gap
- Figure 7.B shows the same dilemma from below. There are almost no connection points that fit into the regular grid that playmobil once developed for SysX
- Figure 7.C shows that also the depth is not fitting to the standard format. Thus, once again several columns are needed to fill the big gap
- Figure 7.D finally shows that not even the height of the base elements fits the regular size of other sets, so the stairs are basically hanging loosely in the air

The problems described here are valid for most of the recently released SysX-Buildings. New parts are often out-of-standard and thus are not interchangeable with other sets, or they simply become bigger and thus less flexible in use. And sometimes, new elements are released, like roof parts, but the new design lacks some variations that would be necessary to integrate them into other buildings. In conclusion, using the regular grid (width, height, and depth) as it is defined by Playmobil in the standard building parts is crucial step on the way to developing a universal construction toy!

## 4 Perspectives

**Please note:** The following proposals are summing up the results from several discussions within the collectors club pilot phase and on other occasions. PlaymoDB, Collectobil, and the SketchUp-approach are explicitly mentioned here just because right now they form an integral part of the collectors community and they also provide valuable tools to start using Playmobil as a construction toy within an official collectors club. Nevertheless, these projects are completely independent of the official Playmobil collectors club.

### 4.1 International DS

Originally, the DS has been designed as a resource for spare parts. For a huge international collectors community, it is essential to find a way that allows access to the DS worldwide. This also is one of the most common demands from the non-DS served countries.

*Side-note:* Playmobil DS in Greece is now pioneering in offering a DS-service for registered Greek collectors. The orders will be processed by the Greece HQ (Irene Effraimidis) and then they are shipped from Germany to the Greek collectors. This might show the way forward to an international DS service for all collectors worldwide.

### 4.2 An interface between DS and collector projects

Furthermore, it would be extremely helpful to have online access to the price lists and availability of DS parts, at least by having the option to access the ETNs via the DS-webpage, in the best case by connecting PlaymoDB and/or a design tool with the DS-shop.

That way, collectors would have direct access to the DS and could place an order very easily, also minimizing the order processing on the Geobra side as the interface will result in a pre-defined order.

### 4.3 Collectors Club Webpage

It is very likely that there will be a PCC webpage that continues the way that Collectobil had once started to go: A moderated attractive portal for all collectors, with a lot to offer: competitions, information, DS access and community events.

*Side-note:* There has been a notification on the Collectobil-webpage that it will be relaunched in the near future. We will hope and wait. Maybe it would even be possible to integrate the valuable information from Collectobil into the new club webpage.

#### **4.4 SketchUp-Support or house-made Design-Software**

As Sketchup is free of charge for private use, it might be a very good first choice to experiment with a CAD-system for virtual Playmobil-Buildings. Right now, it is the effort of only a few collectors to bring together all the parts needed to build with Playmobil. Maybe here support by Geobra would be possible, esp. if the internal CAD-files are portable to the Sketchup-Format. Just the same, Geobra might feel more comfortable with launching their own product, embedding their data into a proprietary framework and also maybe integrating the access to DS, allowing to export a shopping bag of needed parts.

The community would of course appreciate both solutions and is looking forward to the progress made in this endeavor.

#### **4.5 Competitions in the Collectors Club**

To propose the use of Playmobil as a construction toy to a broad audience, we could offer various competitions, looking for the clever use of existing sets and extending them to something new.

Again, we would hope to do this in close collaboration with Geobra. This support could be much more than just donating prizes for the competition, Geobra could actively discuss with the PCC about suitable themes and constraints in the competition, so that the winning entries go well along with new releases and/or the winning entries might be released as additional DS-Bags to extend basic sets to e.g. historical buildings.

#### **4.6 A new building system design paradigm**

Finally, we are concluding with a remark that is most important for the further development of Playmobil as a construction toy:

**It is essential that Geobra keeps to the principal criteria that every newly designed part has to fit into the building framework!**

All old sets of the same building system have to be compatible with the new parts. That way, new sets can emerge from the old ones. If this is only possible by modifying parts physically, the fans and especially the ordinary customers will be frustrated and the project will fail!