Last year, in May, the building of the Faculty of Architecture at the Delft Technical University was destroyed almost entirely by fire. Fortunately, some parts of the building escaped the flames and, after a few days, the library collection of over 40,000 titles was saved, as was the chair collection. It was a narrow escape, and the confrontation with their possible loss made the value of the collection all the more apparent. After the incident, it was decided to try and make the collection more widely known and accessible, and this article is part of this effort.

Keywords: architect—designer—design—furniture—materials—the Netherlands

Background

The presence of a chair collection in a faculty of architecture could be surprising, as its use in the education of architects may not be immediately apparent. The wide range of chair types, of materials applied, of ages and of design background of the items in the collection are other aspects that will need some explanation.

The collection was founded in 1957 by three students of the faculty of Architecture, as an aid to design education. Their initiative was received with enthusiasm, and supported, by the faculty and especially the Department of Interiors. The chair is seen to provide students of design with an assignment of a more manageable scale than a building, and can be used to show construction principles and the application of materials. Within a few years, the collection had grown to over 100 chairs, bought at flea markets or donated by manufacturers, designers or others.

The chairs for the collection were selected according to two main criteria. As this collection of chairs was formed within a university of technology, particular emphasis was placed on the question of how to design chairs from an engineering point of view. This meant that chairs made using innovative or unusual construction techniques and materials were sought out. As a result, the collection also contains very work-a-day chairs of anonymous design, selected for technological interest. The majority of these chairs stem from the twentieth century, because before then most chairs were constructed traditionally, from wood. Exceptions to this rule, such as Thonet’s chairs made of steam-bent wood, were included.

Some types of chair, such as office chairs, children’s high chairs and folding chairs, were collected in series to show a historical development. Chairs of these types tend to have moving parts, which makes them interesting from a technological point of view. In the past, loans for thematic exhibitions on subjects such as office chairs and folding chairs in various museums showed how such items can be of interest when put in a broader perspective. Such ordinary items can be difficult to find in other collections, since they tend to escape the collector’s notice.
Secondly, chairs were selected to illustrate the history of design and designers from an art-historical point of view. Anonymous chairs that were judged to illustrate a particular period in design were acquired, along with chairs by well-known designers who played an important role in (especially Dutch) design history. Because the collection was managed within the architectural faculty, architects who also designed furniture are relatively well represented. Chairs that were judged characteristic of an architect’s work or period were included in the collection. The furniture designed by architects is often part of a design for an interior or building, and is shown in combination with additional information on the background of the item. The architect-designers who made their way into the collection vary from the relatively unknown to influential characters such as Berlage.

More recently, when the University of Delft reorganized its historical collections, the chairs belonging to the Sluyterman collection were added to the chair collection. These items form an exception to the rules mentioned above. T.K.L. Sluyterman, a professor of decorative arts from 1895 until his death in 1931, collected a wide variety of objects as educational material. In 1917 Huis Hartman, an eighteenth-century house in Delft, was decorated with these items in rooms representing different periods, to serve as an example to students. Sluyterman published several books on historical interior design in the Netherlands that feature items from his collection.1 A lot of the older chairs in the collection originate from the Sluyterman collection. They are anonymous designs, selected for their decorative value, rather than their constructive innovativeness or authorship.

Over the years, the collection has also continued to grow through acquisitions, and it now holds some 300 chairs.

Rietveld and the collection

In 1964, a remarkable donation was made by Gerrit Rietveld, who recognized something of his own attitude to design in the collection’s approach to chairs. Rietveld (1888–1964), a carpenter by training, left traditional design behind early in his career, and looked for new ways to realize furniture. He developed new construction techniques for furniture by working and improving on his models over the years. The chairs he donated to the collection in 1964 reflect various material and construction researches that he had performed.2

They are the ‘stokkenstoel’ (1924), with a construction using dowels similar to the red-and-blue chair, but with a frame executed in round wooden rods; a ‘beugelstoel’ (1927), with a tubular steel frame; a military chair (1932), with overlapping joints and coach bolts; a crate chair...
(1934), out of untreated pine boards connected with screws; an aluminium chair (design 1942, object 1960), folded out of a single sheet of aluminium [1]; and finally a Danish chair (1946–50), constructed out of bent plywood parts. Later on, a Mondial chair and a replica of the red-and-blue chair were added. The collection has since acquired two more original Rietveld chairs through donations, a military chair in 2008 and a zigzag easy chair in 2010. From the 1980s onward, Rietveld’s work has received more and more attention in the Netherlands and now the Rietveld chairs are the best known part of our collection.

The Rietveld series of furniture was complemented by a collection of seventy-eight Rietveld furniture models, at one-third scale. This collection was added to show Rietveld’s experiments in the use of materials and constructions more fully. Rietveld worked on certain constructive solutions for a long period of time, making numerous variants of chairs. The models show entire series of variants, putting the life-size chairs in perspective. Most of the Rietveld furniture models were saved and are still available for exhibition purposes.

**Curatorial practice**

In order to make the collection more accessible, and to illustrate the first of the selection criteria, a book titled *Stoelen* (Chairs) was published in 1974. The authors decided to illustrate technological evolution more fully by including chairs from outside the collection. The chairs in this book were divided into material categories: wood, metal and plastic. Within these main categories, the items were arranged according to the construction techniques applied to the material. The choice for a division into material categories, rather than periods, was motivated by the use in design education. Designers are often interested in the different design solutions that can be applied to a given material, irrespective of the style of a design.

At the time of the fire, a new catalogue for the chair collection had just been sent to the printer after years of work. The categorization according to material was used again for the new catalogue, since it has proved to be an effective way of presenting the collection to designers. Nonetheless, it must be noted that the subdivision according to construction principle remains arbitrary to a degree. Several construction principles may be found in one and the same chair and in those cases one of them must be given priority. The rule applied in such cases is that the way the load-bearing frame is constructed is decisive for its categorization. This principle will be illustrated using a few examples.

In the second half of the 1930s Rietveld started working on a design for a chair to be folded out of one single sheet of material. The aim was to develop a chair that could be produced with a minimum of labour cost, simply by cutting and folding a sheet of fibreboard or plywood into a mould. The original two 1942 aluminium chairs were prototypes in this series of designs, for a model that was intended to be mass produced in fibreboard. Despite Rietveld’s effort to
manufacture this, or another chair, folded out of one sheet of material, his designs did not make it to the production stage. The chair made out of one piece is a theme that has been pursued by numerous Dutch designers since.

In the catalogue, the prototype is shown in the section on metal chairs, after a chair moulded out of steel sheet and before Hans Coray’s design with a bent aluminium seat and backrest. Had Rietveld succeeded in producing it in wood, the product would have been part of the bent wood series in the Wood section.

In fact the first designer in the Netherlands to realize a laminated wooden chair in one piece was furniture designer Han Pieck (1924). The LaWo (laminated wood) chair is one of his earliest designs, first conceived of in the early 1940s [2]. The chair is folded out of a single sheet of plywood; small brass braces connect the armrests and the back of the chair. The shape of the front legs strongly resembles that of Gerald Summers’ pre-war plywood armchair, but the brackets allow for the front and rear legs to be constructed in one continuous line. Pieck started working on the design during the Second World War, but did not have access to the techniques necessary for its production. Only in 1946–8 could he start manufacture, having obtained an order for 10,000 chairs. Production was delayed, however, because of problems with the lamination process, and only 1,000 chairs were ever produced.5 In the catalogue, the chair is shown among a series of bent-wood chairs, including designs by Eames, Aalto and a number of Dutch designers.

A recent acquisition, a chair made of laminated bamboo, continues the development of laminated wooden chairs [3]. This chair was designed by Marco Groenen (1970) and uses glue, not just to compose the basic material out of strips of bamboo, but also to create all the connections. The chair is surprisingly light, and the overlapping joints in the legs use a hollow piece of a bamboo shoot as a dowel. Although almost the entire collection was saved after the fire, this item was the exception. It had not yet been stored in the depot and was destroyed along with the offices in the high rise. Fortunately, it was relatively easy to replace as it is still in production.

Use of the collection, past, present and future

As was mentioned above, the faculty’s chair collection was used for design education from the beginning. Knowledge of the history of design and inspirational examples help develop a student’s own attitude towards design, and the technological solutions and innovation that are essential to the execution of their ideas. Additionally, some items have served as models for drawing lessons.
The use of the collection has changed over the years, and nowadays the main purpose is display in the faculty, lending to museums and research. The collection pieces are also available for researchers, who may visit the depot on appointment. Recently, for instance, the Rietveld aluminium chair was used in research initiated by the owner of another specimen. Aluminium was unavailable during the war, and Rietveld purportedly cut the material for his experiments out of the wings of a crashed allied aeroplane. By comparing the material properties of the aluminium in both chairs, the origin of the other chair could be determined. It was concluded that the chair in the collection was made in 1960, for an exhibition, out of quite ordinary aluminium. This is just an example of how the collection may be of use to historical research, even in the case of designers whose work is relatively well documented. We welcome this sort of research to fill in lacunae in the available information.

Obviously, a faculty of architecture is not a museum, and a group of even very enthusiastic and committed design lovers may lack skills essential to the upkeep of a collection. Funds were scarce and the collection went through periods of neglect that have left their marks. Records were not always kept as methodically as they ought to have been, and as a result the history of some items is shrouded in mystery.

A set of Russian art deco furniture can serve as an example here [4]. The provenance of these items was entirely undocumented, but it was assumed that professor Sluyterman himself had travelled to Moscow and acquired the furniture there. Unpublished research by Jesco Oser, a German expert on Talashkino furniture, now living in Russia, has revealed that these items may well have been made locally, after photographs and drawings in a publication on the Talashkino workshops from 1906. Such developments are illustrative of the importance of the wider accessibility of the collection, as it was the recent publication of a new catalogue that made Oser aware of the existence of this Russian furniture in Delft.

Conclusions

The value of our collection lies in the wide range of chairs, including once-common objects, and in the curatorial approach, which is especially suited to designers’ work.

Since the chairs were collected at local flee markets, and through contacts in the local fields of design and production, most of the items are of Dutch origin. Because we would like to build on the collection’s strengths and its unique approach to design, the focus for this collection for the future will be on Dutch designers and development of materials and innovative design in the Netherlands.

Charlotte van Wijk
Delft Technical University
E-mail: c.a.vanwijk@tudelft.nl

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