

COLOPHON

Off The Shelf:

Projects Surrounding the Chair Collection at the Faculty of Architecture

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Editor: Charlotte van Wijk

Design & Layout: Nico Schouten and Olivia Forty

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This publication consists of the work of several studios at the faculty of Architecture and the built environment. These studios focus on the use of the chair collection currently present at said faculty. With this publication we hope to give insight in the different projects surrounding the chair collection and the work of the program. The different sections are accompanied by short introductions by the respectable teachers or coordinators.

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PREFACE

Carola Hein

Enriching Education and Research Working across departments Education, Publications, Creating heritage

Activities in 2015 included pop-up exhibitions throughout the Faculty, followed by an exhibition at the TU Delft Central Library. During the pop-up exhibitions project a number of chairs were exhibited around the faculty building and in several other locations around campus, requesting feedback from their audience.

In the fall semester of 2015-2016, two concurrent design courses used selected chairs as a starting point for the design projects, resulting in an exhibition of the students' products and this publication. The set-up required the collaboration of people from a number of departments (Carola Hein, Peter Koorstra, Robert Nottrot, Charlotte van Wijk, Bas Vahl, Tessa Wijtman-Berkman, Jurjen Zeinstra) who shared a common interest, in this case the design of chairs, related furniture and interiors. The Chair Collection formed an obvious meeting point for the different people involved, and worked as a catalyst for the cooperation between the departments.

THE SIGNIFICANCE **OF UNIVERSITY COLLECTIONS**

Charlotte van Wijk

The faculty of Architecture and the Built Environment at Delft Technical University houses a unique teaching collection of over 300 chairs. Unlike any other collection in the university, and because a collection's purpose and needs deviate somewhat from the more common features of a given university department, its position can be challenging in terms of management, funding, and goals.

Generally, university collections were used for either research or teaching, and they remained key teaching resources until the 1960s. However, due to changes in research, teaching practices and university budget cuts since the 1980s, many university collections are at risk. Losing the connection between a collection and active education and research can result in its neglect or dissolution, because it is seen to have lost relevance. This is a real shame as university collections form an artefactual record of pedagogical methods, and store a wealth of future educational potential and are therefore very valuable from a heritage point of view.

When it comes to the use of collections, developments in architectural education have not always run parallel to those in other university disciplines. Whereas in other disciplines the connection between teaching collections and education has often been lost completely, at the Faculty of Architecture and the Built Environment some of the collections have remained in active use. What is significant in the case of the Chair Collection was that it was being compiled at the very time that many university departments elsewhere were turning away from their collections.

To explain the position of the collections at A&BE and to map their future, I will place them in a framework of university collections in general. Although university collections form a large and varied group, and the different nature of the various collections often call for a specific approach, they all face a number of the same challenges. For the purpose of possible cooperation between institutions, and the formulation of new approaches and goals, an overarching theoretical framework helps curators to escape the limitations posed by a narrow, disciplinary or organizational categorization. However,

(1) Marta C. Lourenço, Between Two Worlds, the Distinct Nature and Contemporary Significance of University Museums and Collections in Europe, Doctorate, Conservatoire national des arts et métiers, École doctorale technologique et professionelle, 2005, p. 123.

the broad spectrum of university collections, and their changing use, makes it difficult to universally categorise them.

Lourenco (2005) provides a theoretical framework for a better understanding of the origins, nature and possible significance of university collections. Lourenco based the framework on extensive literature research on the museological approach to university collections, documenting the existing confusion of terms and classifications. In general, Lourenco proposes to classify university collections according to the following typology:

- 1) Research collections
- 2) Teaching collections
- 3) Historical teaching and research collections
- 4) Collections of university history (memorabilia, biographical collections)²

With time and changing approaches to research and education, collections may shift from one category to another; research collections may be used for teaching, and once active research and teaching collections may no longer be used for their original purpose, becoming historical collections. Lourenco proposes to take the process of admission of objects into the collection as an additional criterion for a division of the typology into two main categories. First generation collections are the result of purposeful collecting, for research or for education. Second generation collections are formed by historical accumulation, and may contain for instance historical instruments, but also portraits of professors and other memorabilia.3

When we apply this categorisation to the collections at TU Delft, we see that most of it can be classified as a second generation collection. The majority of the research and teaching collections formed at the various faculties of TU Delft are now in the care of TU Delft Library under the heading of Special Collections. Special Collections is subdivided into the Trésor, housing the historic publications, photographs and prints, and the so-called Museum Collections. The latter contain around 8000 items, amongst which are included historic instruments and equipment, lecture materials and research collections. Besides the items that members of staff used for research and teaching in the past, the Special Collections house furniture, portraits and other memorabilia.4 The purpose of the collections, as stated on the website, is research into the history of science or technology or industrial archaeology, exhibitions, or 'leisure' research. This implies that the items contained in the Museum Collections are no longer relevant to current TU Delft research and teaching, and that the collections therefore fall into the category of a second generation collection. The general trend in TU Delft is to regard collection items as an illustration of educational practices of the past, to be stored in a closed depot. 5

⁽²⁾ Lourenço, 2005, p. 34

⁽³⁾ Lourenço, 2005 p. 40

⁽⁴⁾ http://www.library.tudelft.nl/en/ collections/special-collections/, accessed 3-3-2016

⁽⁵⁾ http://www.library.tudelft.nl/en/ collections/special-collections/, accessed 1-3-2016

The current stagnation of these collections has occurred relatively recently. The Technische Hogeschool Delft (as TU Delft was then called) became a national pioneer in the use of historic technical collections when the board founded the Technisch Tentoonstellings Centrum in 1976. The goal of the TTC was to popularise technology through exhibitions, and many items from the teaching collections found new purpose there. Due to budget cuts, the TTC was privatised in 1993 and its name was changed to Techniek Museum Delft. In 2008 the museum was relocated, a change that also prompted a change to the overall concept. The Techniek Museum was renamed Science Centre, but more importantly, decided to no longer base its activities on TU Delft's Museum Collections. As a result, the Museum Collections lost an important means of outreach.

However, there are exceptions to the general circumstances of the collections at TU Delft, and some collections are still in use for education. As was mentioned before, the Faculty of A&BE still houses a number of active collections. The collections of A&BE include construction models and building fragments from older teaching collections, an image archive largely resulting from educational activities and field trips, and material samples of wood, stone and some brick. In addition to these older items, a large collection of architectural scale models has built up over the last three decades, largely the result of research and exhibitions both at the faculty and at other venues. Amongst these were travelling exhibitions with an international audience, such as Raumplan vs. Plan Libre, and monographic exhibitions on The Smithsons and Melnikov. Many of the models in the collection were built by students under the direction of professor emeritus Max Risselada. Finally, the faculty houses a teaching collection of chairs.

The Chair Collection consists of over 300 chairs, most of them present in the faculty building. It has been part of the Faculty's educational facilities since a number of students started collecting in 1957.6 As the collection was initiated to support design education, it reflects a special interest in material use and construction, making it a ready source of inspiration for designers In contrast to most of TU Delft's heritage collection, the Chair Collection is a living collection, in the sense that it is still growing, mostly thanks to donations. In the past year donors have contributed a small collection of (mostly anonymous) working chairs, as well as several chairs by well-known designers.

Activities around the Chair Collection include exhibitions and research, but there are also frequent loans to museums. Recent loans to prominent museums include a Rietveld chair at the Rijksmuseum, a Berlage chair, amongst others, to the Gemeentemuseum Den Haag, and a sofa to the Kröller-Müller museum. The chairs are currently on permanent display in

(6) C.A. van Wijk, The Chair Collection of the Delft Faculty of Architecture, Journal of Design History, volume 24, no. 1, 2011, p. 79-84 a central location in the faculty building, and information on the items can be accessed through touch screens. Therefore, in contrast with most TU Delft collections, the Chair Collection is still a first generation collection. But to the curators, it seems that the preservation of a collection and the heritage value it represents is best served by the continued or renewed use and significance for education and research, especially since these are the core activities at the university.

In order to activate the faculty's collections and to realise their full potential we, the curators of the faculty's collections, tried some new activities in which the Chair Collection served as a guinea pig. Until recently, the chair collection was used predominantly during lectures to exemplify work by the designers, or was exhibited in tours of the collection. There were also instances where students might write their thesis paper or undertake research on a chair or designer. Otherwise, the collection mainly provided loans to museums. One of the issues that the curators wanted to investigate was the question of how to deal with the future of the collections in education. Other uses besides education and research could also become relevant. In planning the future use of the Chair Collection, it will be useful to consider the future and other possible uses of university collections generally.

In the past, the main purpose for a university collection would have been research, and the second purpose would have been teaching. Since the 1980s, a third mission became more important to collections looking for renewed relevance: outreach to the general public through public exhibitions. With increasing competition between universities to attract students from abroad, a fourth mission is added: forming a display window aimed at prospective students. This kind of activity could achieve another goal at the same time, by appealing to alumni. Alumni are another important new audience; the university sees their involvement with their old university as a possibility for networking, potentially beneficial to research and education purposes.

This publication discusses projects around the Chair Collection, because this collection served as a test case for possible new approaches. Some of the projects in this publication appear to be part of a trend to reconnect collections to education. At the annual meeting of the European academic heritage network (Universeum) of 2016, these projects were presented to an audience of mainly university museum staff, or university collection curators. The introduction of a dedicated session read:

"Connecting the collections with research and education ... In the last few years we have seen an increased demand by university boards to demonstrate the use of collections as resources for research and education. Many university collections that originated and then dissociated from teaching and research

are now re-connected to education and scientific investigation. Did the collections find their way back into the labs and the curriculum? How do new ways of object based learning and research give new meanings to collections?"

Other educational activities presented in the session centred on research carried out on items in university collections, sometimes in an educational context.

Our recent collections activities have not just been aimed at expanding research on and teaching with the collections, but also at expanding on the other two aims through the exhibition of the results of the educational research and design projects to our various audiences. The third and fourth missions, of outreach to a general public and appeal to prospective students, form a viable option for part of our collections. By incorporating selected student work into the collections, a highly representative picture could be created of what it is like to study at the faculty. Thus the future for the collections can be found in all four missions: integration into education, generating research, active in outreach to international students, alumni, and the general public, in cooperation with museums.

The main question throughout the project was: How can we activate the faculty's collections through integration with education, research and exhibitions?

The goals that we identified were:

- A. Better integration of research education into the curriculum, which is dominated by design education
- B. Getting the collections involved in design education
- C. Output: using student output, to create exhibitions for students at the faculty as well as other universities, and the general public.

The curators aimed to achieve these goals by initiating projects that advance the integration of research and design education, by using research on items from the collections as input for design projects. The results were presented in exhibitions and are shown in this catalogue.

ARCHITECTURAL PEDAGOGY

Charlotte van Wijk & Elise van Dooren

Architectural education in the Netherlands has a long tradition of 'hands on' modes of instruction. An important component of the aesthetic education of architects in the drawing schools of the 19th Century was the drawing of prints, plaster casts and models, and later in drawing real objects and building elements. The historical collections of prints, plaster casts, assorted building parts, furniture and smaller objects at Delft are testimonies of this approach to architectural education. The use of historical material in drawing and modelling classes continued during the first half of the 20th century at the Delft architecture faculty, reflecting a strong historical orientation in design education.

The well-known Dutch modernist avant-garde formed a small minority among architects, and did not feature amongst the architecture faculty staff in Delft until after the Second World War. Even when Johannes Hendrik van den Broek and Cornelis van Eesteren became professors in 1947, their influence on the curriculum remained small. It was not until the late 1960s that there was a shift in the focus of education at the architecture faculty of the Technische Hogeschool Delft.

After 1969, a new generation of students forced changes in the curriculum, which began a departure from building practice and design. Former dean Wytze Patijn, who was a student of the faculty at the time, has explained how the influence of a Marxist ideology triggered a climate in which students considered standard building practice to have become compromised by capitalism.¹ Traditional education, with its focus on the material culture of building and its preoccupation with aesthetics, was abandoned for analytical and sociological studies. The use of the older collections of teaching objects dwindled, apart from the occasional chance to serve as models in freehand drawing classes. But the objects no longer served as examples of good design, to be emulated in the students' own design work. Evidently the situation has evolved since the 1970s, and considerations of aesthetics and technical demands found their way back into design education at the faculty. But socially—oriented analysis still features in the design process, although current

(1) T. van der Wees, De fluwelen revolutie aan de TH Delft, Delft (2013) 2: 17-18. Accessed 11-4-2016, http:// deverbalenvanger.blogspot.nl/2014/02/defluwelen-revolutie-aan-de-th-delft.html. design assignments can no longer by typified as Marxist. New themes have emerged, such as environmental awareness. As a result, for a student-designer there are numerous factors to consider during the design process: technical limitation, societal considerations and aesthetics all vie for attention. As a consequence of this multitude of considerations, completing a design project can be a complex and confusing process, in which a tutor may help the student by making the complexities explicit. Elise van Dooren has demonstrated how analysing the architectural design process in education may do this.²

Van Dooren analysed design processes, investigating how design education could be more structured. Van Dooren observed that design tutors often only discuss the design product with the student, but do not explain how that design might be developed. Although Van Dooren's research focused on education in architecture, it may also be applied to furniture or interior design, with some adjustment. Van Dooren's analysis of the design process showed up five generic elements that are seemingly always apparent:

- 1. Experimentation (a process of trial-and-reflection, the designer trying different approaches to the problem at hand)
- 2. Sketching and Modelling (the 'place' or 'language' in which to experiment, the techniques used in the 'laboratory')
- 3. Five domains specific to architectural or planning design (These are the issues you have to deal with as an architect, and can be replaced by domains specific to interior or furniture design)
- 4. Guiding themes (the desired quality or direction, narrowing down the number of possible directions for the design process, which could be as diverse as 'zero energy' or 'spatial experience')
- Reference library (previously acquired knowledge or experience that may serve for inspiration, information, possible solutions, or approaches to the problem at hand)

Although aesthetics returned to education at the Delft architecture faculty, the use of design objects as subjects in drawing and modelling classes did not, although we feel education could benefit from it. To clarify the benefits that can be gained from using the university's collection of objects, we will explain the roles the chairs play in the design and education process, based on Van Dooren's findings.³

(2) E. Van Dooren, E. Boshuizen, J. van Merrienboer, Th. Asselbergs, M. van Dorst, Making Explicit in Design Education: Generic Elements in the Design Process, Int J Technolog Des Educ (2014) 24:53-71, DOI 10.1007/s10798-013-9246-8

(3) E. Van Dooren, E. Boshuizen, J. van Merrienboer, Th. Asselbergs, M. van Dorst, Making Explicit in Design Education: Generic Elements in the Design Process, Int J Technolog Des Educ (2014) 24:53-71, DOI 10.1007/s10798-013-9246-8 The use of objects from the university's collection in design education has many similarities with the research carried out by Van Dooren, as illustrated below.

Using an example as a starting point can help to focus the work

: the guiding themes found in the example channel the design student's efforts. Research into the example enriches the students' frame of reference, which works as a catalyst, speeding up the design process. We will demonstrate these principles by presenting a number of projects that began with the starting point of chairs from the collection. In chapters 'Designing tables and lamps for the Chair Collection' and 'Chairs and sets', we will present the results from three design courses, in each of which chairs from the collection served as point of departure.

In the two Product Design courses, bachelor students were given the task to design a table or lamp. For this course five chairs were selected by tutors, which served as the starting point for design. Feedback from staff at the end of the course was positive: they found the results to be richer and more in depth, because of better focus in the students. Robert Nottrott: "The courses for the table and the lamp design originally were done without the dialogue with the chairs. The mentors of the course discovered that the inspiration from good examples and because of that the exploration of the technical aspects, led to a much more rich series of results ." This confirms Van Dooren's findings: that a guiding theme, (which could be as different as 'certain atmosphere', or 'certain organic shapes'), channels the design student's efforts. To begin with an example can help the student to focus, because it sets out the guiding themes at the very start. Equally, research into the existing chair and its designer expands the frame of reference and works as a catalyst for a richer and more thorough project.

and more thorough project.

In the third course, which took place as part of the Masters, students designed and built a set for a chair, in which the chair acts as a character in a photography set. Students were free to choose a chair from the collection with which to work. Thirteen students took part in this design course, making scale models of their set design each week. After some weeks, the group chose four designs from the thirteen, to be built at 1:1 by teams of three or four students. The final assignment was to photograph the set, thus defining

The course was unique in the respect that to directly compare results without the chairs would be impossible.

the exact framing of the chair in its surroundings.

(4) Quote from the draft version of Nottrot's chapter for this publication, attachment to email from Nottrot to Van Wijk, dated 19-12-2015.

However, it did provide us with interesting results regarding the beneficial relationship between research and design work: in addition to the aforementioned design work, students had the option to prepare for the course by joining a tailor-made thesis course on the history of their chair and its designer. Only a small minority of the design students took this opportunity, but it happened that the four students whose projects were selected had all taken part in

the related thesis course. Van Dooren's framework offers an explanation of the advantage in the design process these four students had over their peers. The guiding themes for the 1:1 builds derived from the designer's oeuvre, and the research carried out before the start of the design studio gave those students a head start, helping them to come up with well thought out and therefore more convincing themes. The four students' enlarged frame of reference during the design process helped to speed up the decision-making process when making design decisions. These two points illustrate how research benefits design.

Our general conclusion from the two courses is that in starting from a given object, the resultant guiding themes result in a more focused design process. Working with a given focus helps students to recognize and work with the possibilities given by external influences, playing with them from abstract to concrete and vice versa. It helps them to achieve a coherent and integrated design result, and helps the students to learn how to work with a frame of reference. More specifically, this is about becoming inspired by and delving deeper into references, learning to recognize all kind of features, interpretations, principles and patterns, and looking for the essence of things. In the design studio a chair represents the intermediate scale between materials at one end of the spectrum, and the constructs of domestic or design culture at the other. Given that our Chair Collection was initiated to support design education, it reflects a special interest in material use and construction, which makes it a ready source of inspiration for designers.

THE MUSIC OF CHAIRS

Patrick Healy

The 1840 essay of Edgar Allen Poe "The Philosophy of Furniture" remains one of the most provocative essays written on interior decoration, and it has variously been read as ironic, ambivalent, and in some cases simply polemical; an essay wherein Poe vents his spleen on the jejune and tasteless productions of the contemporary American interior decoration. The tone of the writing is swingeing, taking the view that American taste is a play ground for the parvenu rivalry of the 'aristocracy of dollars' and inevitably confuses display with affect. The sole test of merit, in such a scheme, of any decorative item, or an ensemble decoration of a room, is its cost.

Poe introduces in his critique of the contemporary scene a failure which he designates with the lack of what he characterises by the concept of 'keeping': by which he means a notion of unity of composition, such as one finds in paintings. The so-called well-furnished apartment - a recent descriptive term - which he jokingly traces to Appalachia - is offensive to the eye, because of its lack of 'keeping'. As in the painting so for the room, the proposition of Poe reads, in a way, like a new version of the principle ut pictura poesis.

Clearly Poe rails against what he calls the open and undue precision in rooms, by which he considers them utterly spoiled. The essay develops into an exercise in critical research, with Poe pointing to what he takes as defects born of perversion of taste, and an ideal towards which the interior should aspire. Significantly, his ideal is not based on historical precedent. Further, it can be added that Poe sets himself against the 'Transcendentalists', specifically the nature worship of Emerson, insisting resolutely that architecture and human making is fundamentally different to natural and organic developments.

The principal defects he lists for decoration are 'glare' and 'glitter', the chief result he requires for his concept of a room with its furniture, hangings, objects and ornamental items, is 'repose'. Such acquiescence depends on lighting and proper disposition of various elements in the room. Poe will, in a neat turn, ask his readers to consider a gentleman on his sofa sketching the room in which he relaxes - of course the model of modest taste is his own room in which he releases both phantasmic and prescriptive considerations. His criticism of glare speaks of a kind of irritability and enervation in which Poe rescues the physiological significance of the aesthetic away from an abstract, general culture of taste.

(1) The essay was first published in the Boston's Gentleman's Magazine, in 1840 and later republished as "House of Furniture" in the Broadway Journal, May 1845. There is a pdf online available, and I have availed of this for ease of reference. The Argand lamp was patented in 1780 by the Swiss chemist Argand, and Thomas Jefferson suggested it gave off the light of 6 or seven candles.

His preference is for an Argand lamp against the introduction of cut glass types that are the result of a weak invention and importantly 'mar a world of good effect in the furniture subjected to its influence'. The small note of animism sounded here, belong to the whole later development of Poe's granting to material objects and spaces an uncanny life of their own. This is dramatically captured in the essay by his claim: "the soul of the apartment is the carpet'.

Part of his criticism against glitter is focused on an over use of mirrors where he tellingly notes that the surfaces of mirrors are continuous, flat, colourless and unrelieved surfaces. The leading feature of glass is glitter, and he reserves his most dismissive comment on the glass prism cut chandeliers with gas light and without shade which are the high note of false taste, and in their size, a preposterous folly. The flicker of light is, to his mind, a distraction for children and idiots.

With formal furniture, curtains are out of place, and it is the use of the carpet which grants the tone and key to creating through the plush and objects of the room the possibility of repose. Here the carpet is to be of an arabesque pattern, a pattern that is seen as creating stillness and peace. The imagined room is 30 feet in length and twenty-five in breadth. On this oblong plan Poe pitches his idea of a 'shape affording the best (ordinary) opportunities for the adjustment of furniture. He allows of one small circular mirror, and as to chairs, seats or sofas: 'two large low sofas of rosewood and crimson silk, gold-flowered, form the only seats, with the exception of the two light conversation chairs, also of rosewood". The room as reconstructed in the Edgar Allen Poe National Historic Site in Philadelphia, Pennsylvania, seems not to have understood the meaning of conversation chairs.

There must be no brilliant effects, the emphasis on the arabesque pattern for the carpet, the Argand lamp, all point to the over-riding emphasis on atmosphere, and a painterly sensitivity to a unity of tone and composition. In such an interior, furniture can lead a life of ease and dignity. The visual world tends to the sombre and muted, it inclines one might say more to the values of the sublime, than the beautiful. When the essay was republished in 1845 it was re-entitled 'The House of Furniture" Indeed for Poe the room plan was there to facilitate the life of the furniture. The graceful hanging shelves of two or three hundred 'magnificently bound volumes' all would he believe contribute to a magic radiance. It is in that very last phrase Poe's connection to a much older aesthetic principle can be seen.

Written at the very cusp of the development of objects for mass production - one could even say the production of the masses - Poe's essay would still

stand as a challenge to the later ideas of the streamlined and the functional. What the later modern development shares with Poe is, however, the notion of a functionality directed towards a democracy of taste. It can be argued that in shifting the values of the interior to the question of user affect, and attempting to make a prescriptive argument for a generalised pleasure in the object world, Poe has broken with normative/historicising precedent.

The questions of shape, colour, size and posture, the play on the imagination, and senses belong to a different direction within the aesthetic readings developed in the Eighteenth century. Perhaps the simplest pointer is Herder's reading of Baumgarten, Aesthetica, where Herder reads the issue of a 'science of the sensible', Baumgarten's definition of the aim of the new philosophical discipline, as a search within the fundus animae, the dark sensuality that preceded intuition and concepts.² It is a reading with some considerable consequence for design education, a task in which Poe is clearly engaged.

Seventy years or so later a new visual culture will emerge in which the issue of furniture, and specifically chairs has a key role to play in understanding what is at stake. By a kind of unexpected overlap, in the same period as De Stijl (founded 1917) and in which the Red-Blue armchair of beechwood laths and pine planks held together by wooden pegs is made as a prototype by Gerrit Rietveld and Bauhaus developing the emphasis on taste and mass production, simplicity of materials, experimentation with new material - tubular steel, plywood, Gisela Richter is delivering her immense scholarly reflections on Ancient Furniture, and working out elements of the timeless truth about developments in design. It would make an interesting montage to set her thinking against the contemporary developments by Rietveld, Muthesius, Behrens, Gropius, etc. By a sleight of hand one might construe a quarrel of the ancients and moderns, but what is more fascinating is to see how thinking about relations of formal and functionalist categories, determines and limits both sides of this imaginary debate.

(2) A discussion of this point can be found in John T. Hamilton, Soliciting Darkness, Harvard Studies in Comparative Literature 47, Harvard University Press, 2004. p. 213 and 246 ff. Hamilton uses the argument to enrich a reading of Pindar and the creation something from a 'dark origin'. The issue of the senses and sensuality can be traced to the long discussions in Cicero's Academica 111, a neglected source for the reading of Baumgarten and 18th century 'sensualists'.

Published in 1926 by the Clarendon Press, Oxford, Richter's Ancient Furniture remains one of the best works written on the subject. Her treatment of chairs focused on what she took to be the unjustly neglected area of ancient furniture in general. The text artfully re-inscribes both the argument of the influence of Egyptian art on that of the Greeks, but also remains faithful to a central tenet of Wincklemann inspired art historical research, namely the notion of a developmental phase which goes from archaic, to classical and then 'decays. The question of surviving artefacts haunts the text, as literary evidence, and depictions, representations from vases, and on coins supply the chief source of information.

The developmental model has, as its real aim, the desire to define what makes for a 'classical' chair, and thus point towards the issues which furniture design share with other technai of the classical period which effectively co-incides with the image of Periclean Athens.

Beginning with a study of the throne, Richter points to the ideological significance of Middle Eastern prototypes of this artefact, as it is synonymous with royal power. In some ways the throne is a homage to the idea of the quadrilateral view of the block, such as seen in Demeter at Lykosoura, and as mentioned in Pausanias, in Book V, 11.2, where lithic massiveness and divine authority are bounded in the unified block of both throne and footstool. It could have been further argued that there is within the idea of the seated God or Goddess a nec pus ultra of power. Gods seated reign from on high. The supreme God, so exhaustively studied by A.B.Cook in his vast work Zeus, is described with the formula, hupatos and many other terms designating elevated, on high, one might even translate as 'sublime' and as Aeschylus remarks, in his play the Suppliants he Zeus does not acknowledge the power of anyone seated above him. Olympians in assembly sit on seats. Martin West has pointed to the importance of this 'height' can be found in the name of Ugaritic Baal, and Hebrew divine designation as eli, 'elyon etc. as high, seated on high, established in the heavens.³ What is most interesting to observe is that in post Periclean Athens, the valuable information supplied by the seated figures on grave reliefs and stelae point to a wholly different relationship to social and divine relations. It is as if in humanising the Gods, making them take on human body proportions the Greeks are indeed left with figures in intimate spatial niches engaged in simply humble gestures and their sculptures of farewell pivot so much around the human seated figure, away from the free-standing kouros, the divine/human radiant being.

Richter's text follows from the throne with reflections on the most common kind of seating furniture namely the klismos. The choice is made for the klismos as it reflects a popularisation of the usage of the chair, it refers often to domestic contexts, even when shown in funeral stelae, and in the absence of surviving examples, remains one of the best figured chairs of Greek invention. A good example of the klismos can be seen on the tombstone of the shoe maker, cobbler, Xanthippos, dated to 430-20 b.c.e. which shows a seated bearded figure holding up for inspection a shoe last. (British Museum, main floor, room 19). As mentioned, Richter sees a development from the throne- heavy- to the refined, the light and graceful of which the klismos is the best example, ultimately to decay, perhaps one could say the Pergamene style. She finds a direct analogy for this in development of colonial American furniture, specifically citing a direct analogy with what happens in the design of chairs from the 17th century with their sturdy arms and legs, to the

(3) Martin West, The East Face of Helicon, Clarendon Press Oxford, 1997, especially discussion at p.114. ultimate refinement of the Shearton chairs, which are compared to the best Greek productions.

The burden of her analysis is to define the design principle of the klismos, which is seen as the ordinary lightweight chair, which as a rule is entirely undecorated, and its beauty, Richter argues, lies solely in its proportion and line. It is the comfort chair par excellence, and has no Assyrian or Egyptian prototype. Where in the early throne, legs would often terminate in animal feet, the favourite motif of the early klismos is the swan.

Most of the surviving visual representations date from the mid-5th century b.c.e We often see the klismos shown with its curved backrest, and the concave curling legs front and back in reverse symmetry, echoing limbs, viewed in profile, as is often the case on the attic grave stelae give the curvature of the splayed legs and the curving back rail a delicate inflection, which must depend on the same optical refinements as have been discovered for the column entasis, and the treatment of the stylobate again in the first case viewed however elliptically, and in the second, from the side. The gentle swelling of the narrow concave backrest, between uprights of the open chair back, and the legs are often carved from a single piece of wood. The level of joinery is not dissimilar to what one finds in the best Japanese work, especially in the shelving of cabinet, where again the wood is often planed with a slight curve to create an optical illusion.

The klismos also plays with different kinds of surface and texture, with leather, or animal pelts being used for upholstering the seat. Formally one can see that the silhouette is itself tuned to the shape and proportion of the human body. Again as with the development of temple architecture the notion of rhythmos, is a kind of tense harmonic in which dissonance is co-existent with consonance, a kind of tension such as one finds in the drawn bow. Of course one also can see that the problem of something generic, and yet specifically registered for individual use, crosses the functional/formalist axis, or as it is sometimes treated, dichotomy. Where one interprets the sweeping line of the chair as a single curve - the back ends and curved horizontal board at height of shoulders, there is inevitably an ergonomic translation, from an ideal body to the variable of human use. The back board is often supported by two stiles and a cross stave, as the stiles and rear legs are made of one piece - the emphasis on construction, simplicity, comfort needs to be explained in a rigorous aesthetic, where the avoidance of right angles, and the continuous inflection of the curve responds to the actual rhythmos, or perceived harmonics of a balanced body, itself an ideal construct, and one which craftsmen perfect over long years of experimentation.

Given the generic and schematic demands of creating such a somatically keyed object the invention of the klismos, is nevertheless a unicum. Not only that, but it can be seen after its invention as a kind of musical theme and variation, the variations often to be construed as the search for a perfection, an interplay between the real/ideal biune principle, understood as tensed and toned dynamic, in relation to weight, posture, shape, and even colour.

The motif belongs inevitably to the sacred birds of Apollo about which Socrates dreamt when in prison awaiting execution, and the shape of the lyre as told in the story of the Homeric Hymn to Hermes. Something of the curve and graceful movement of the swans' neck, to mix a metaphor, belongs to the great linea serpentina which Hogarth mentions in his text on the Analysis of beauty, the play of curve and counter curve, the metamorphosis of wood into animal form, the delicate tapering, still retains in the chair the charis and graceful demands of the older social imaginings. From Homer it is clear people sit on chairs, they do not recline in company, this reclining belong to the later elite development of symposiasts and their fellow bibblers, to whom no doubt the almost contemporary words of the prophet Amos might have applied, 'Woe to those who lie on their couches". That there was such view reminds us how either a formalist or functionalist interpretation as Neer has pointed out in his work on Greek sculpture often 'purge artworks of narrative or ideological significance', although it is hard to see how in scholarship which reflects its own time as much as it reaches for an understanding of the past, the Fetichismus of Luxuswaren can be bypassed in speaking of objects which for the most part are already enshrined in museum and high cultural contexts.4

Poe has wished, however ironically, to point to a taste which could flourish in a modest everyday way. Rather than viewing spatial construction or the viewers' or inhabitants' visual emphasis as primary, he appeals to the entire nervous system, and all the senses. There is no need here for an inflationary rhetoric, the very everydayness of the object opens up a sense of wonder, when one comes to consider it more closely. Indeed it was something that Hegel admired in Dutch art: the capacity to wrest beauty from ordinary things. Nevertheless the creation of that beauty, however nested within social demands for use and convenience, remains an enigmatic process. There is doubtless in the best of design objects an inexplicable attraction, a kind of lighnet of desire and longing, which is not simply a product of a consumer objects surplus value, as this can be seen, as Irene Winter has shown in her study of the most ancient texts, a kind of surrender to the shimmering of things.⁵

Poe's glare and glitter belong to new forms of harsh lighting and cold surfaces,

⁽⁴⁾ Richard Neer, The Emergence of the Classical Style in Greek Sculpture, The University of Chicago Press, 2010.

⁽⁵⁾ Irene Winter, On Art in the Ancient Near East, 2 vols. Brill, Leiden, 2010.

it is technically fraught, the idea of the luminous appearance is celebrated in Greek poetry as appreciation of elegant sheen, the beauty that can be found in the violet eyelids of a girl in Sappho's poetry, or in the gracile gesture of those nymphs, another Greek invention, who populate river banks, dell and glen. In the poesis, with its sense of human making, there was a source of charis (grace) and wonder, charis understood as a free act of grace, and it made a well wrought work, itself 'a wonder to behold', as the Homeric expression has it, a thauma idesthai, such as the robotic golden tripods fashioned by Hephaistos.

In the rhythmos of the poetic line and the built form, the shaped object, there is a tuneful melisma, which we often fail as much to see as to hear. In some sense the genuine source of measure and scale is the capacity of human senses to create an order which does not exclude any order, the gift of the work is a source of wonder which in the concluding lines Pindar Pythian 8 is most beautifully expressed when he speaks of the epiphany of such wonder and beauty even in the fragile fated penumbra of our all too rapid lives:

a shadow in a dream, man but when a Zeus given brightness comes, a shining light rests upon men, and a lifespan sweet as honey.⁶

(6) For discussion of Pindar see Boris Maslov, Pindar and the Emergence of Literature, Cambridge University Press, 2015, these lines are rendered by Hölderlin from the Greek as:

Tagwesen. Was aber ist einer? was aber ist einer nicht?

Der Schatten Traum, sind Menschen. Aber wenn der Glanz

Der gottgegebene kommt,

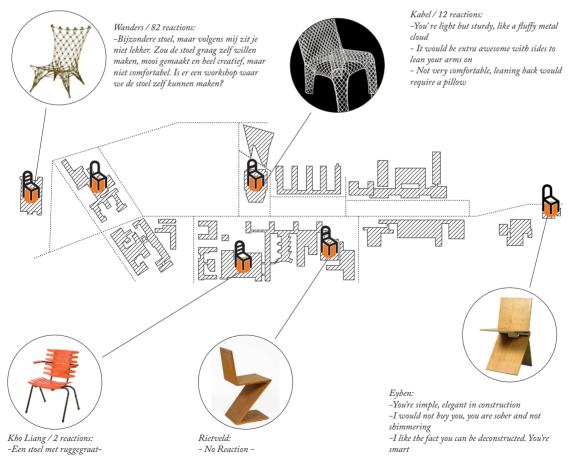
Leuchtend Licht ist bei den Männern

Und liebliches Leben.

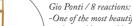
The question of translation here remains one of considerable import in Heideggers engagement with both poets, where in a reading of the hymns of Pindar, Heidegger suggest that the turn to the foriegn, of Greek art, poetics and poetics as making, is a journey of the uncanny, which advances the idea of going home through the unheimlich and in that sense 'poetically man dwells'. In the case of both Poe and Richter one is dealing with a supplementary form of the imaginary in order to situate the object world, in terms of value and meaning, in that sense the rhythm of things belongs to manifestation intrinsically. A new ontology of objects is needed to avoid turning even the virtual into an epiphenomenon.

TAKE A SEAT: POP-UP1

The pop-up exhibitions were the first of a series of activities featuring the Chair Collection, under the title 'Take a Seat '. The goal was to get the faculty's collection of chairs off their shelves and bring them into contact with the public. Since the faculty's move to a new building after a fire in 2008 there was a lull in exhibition activities at home, because of a lack of exhibition space. One of the aims of this project was to establish new exhibition possibilities around campus. In May and June of 2015, selected chairs popped up on various locations on campus, appealing for comments on sticky notes from passers-by. From 8 July until 1 September 2015 the individual pop-ups were collected and shown at TU Delft Library under the title 'Pick a Chair – and compare!'. The idea was that the frequency and quality of responses would reveal the success of particular locations in attracting public attention and engagement, and therefore if they might be considered for further use in the future.



Oud / 13 reactions: -Inviting seat wool to lay on comfortably, wood to rest our arms, metal to hold the whole, an elagant combination. But it lays some what too far backwards without supporting the back Brouwer/2 reactions: -Using metal like paper -Mooi, maar wat is het doel van het dubbele zitvlak?



-One of the most beautiful piece of furniture in the world created by an amazing mind. Italian design has give the world a great

-Fragile indeed, or is it that the dimensions of this time are less subtle than in 1951?





Jean Prouvé / 4 reactions: -I wish everyone had a high standard like Jean -De stoel doet me denken aan de nieuwe collectect van G-Star in samenwerking met Vitra, wat mij verteld dat het niet zo orgineel is allemaal





Aalto / 2 reactions: -Legs/arms look like an expressionist dancer -Elegant chair



Friso Kramer / 4 reactions: Wat een goeie stoel, he. Een van de belangrijkste dingen voor schrijven is bij mij het zitten, ik heb altijd op stoelen van Friso Kramer gezeten. Ik zal mijn collega's een raad geven; als ze beter willen schrijven moeten ze een stoel van Friso Kramer kopen. -Jan Wokers-

Ghyczy / 7 reactions: -Looks like a nutcracker that my grandparents have, same colour and 70's design

-It will suit on my spacship

- Really nice and so egg shaping



Bertoia: -No Reaction





Berlage / 4 reactions:

-Still my favourite -Mooie combinatie van stof en hout, textuur en kleur

- Oldschool



Eames / 2 reactions: Looks like a 2D object



Eek: -No Reaction



Panton: - No Reaction

TAKE A SEAT: POP-UP 2

A second series of pop up exhibitions continued the idea during the next academic year, under curatorship of Tessa Wijtman of ACAP. These pop ups incorporated not just chairs, but also models from the faculty's models collection, archival material and related student design work. The aim of these pop ups was to highlight the joint outcomes of research and design in educational projects of the past and the present. The first one, focussed on architect and designer Jean Prouvé, first made its appearance in the Dean's office, and after that popped up at one of the other locations in the Faculty building. It was followed by four more miniature exhibitions, presenting such diverse things as analytical student work on Jean Prouve's architecture and design, student work inspired by Gio Ponti's Superleggera chair, Russian architects Melnikov and Rodchenko, Gerrit Rietveld design and architecture, Brazilian architect Lelé and health care architecture.





Jean Prouvé

The work of the French architect/furniture designer/constructor/industrialist Jean Prouvé was introduced at the Faculty of Architecture in Delft in the early seventies as a counterbalance to the traditional education of building technology. It became a special student research project during the seventies and early eighties which resulted in publications and exhibitions.

An early result was the first overview of the work of Prouvé presented in the museum Boymans van Beuningen in 1981 when Prouvé received the prestigious Erasmus Prize and for which a set of models and images was produced. These models were shown afterwards in several exhibitions when also others were discovering the work of Prouvé, like in the Centre Pompidou in 1991 in an exhibition curated by Renzo Piano and the exhibitions 'Home Delivery' and 'Ateliers Jean Prouvé' at the Museum of Modern Art in 2008. The models in the Faculty's collections are complemented by two of Prouvé's chair designs, both representative of his interest in metal construction.

















Poster produced for the first of the pop-ups.

DESIGNING TABLES AND LAMPS FOR THE CHAIR COLLECTION

Peter Koorstra & Robert Nottrot

The Faculty of Architecture has a fabulous and extensive collection of chairs. To take them off their shelves and use them for education, the Chair of History of Architecture and Urban Planning and the Section of Form & Modelling Studies collaborated on two design courses in the fall semester of 2015. In the Minor Advanced Prototyping, students designed a lamp in association with a selected chair from the collection, and students from the Minor House of the Future proposed a table. Based on the analysis of five chairs, preselected by the mentors, the students produced sketches, models and finally a fully detailed prototype. We asked students to establish a dialogue between a chair and their lamps or their tables. This initiative, aimed to promote design through existing collections, led to remarkable results.

First, we asked students to establish a logical relationship between specific materials and the way these are assembled into a structure that can be used as a chair. To facilitate this study, we selected chairs based on the history and the context of their design and manufacturing, as well as based on the material,



The five selected chairs were (left to right):

- (a) The first single-material, single form injection-moulded chair, the Panton chair, created in 1960 by Verner Panton
- (b) The solid, but well-formed wooden chair, created by Hendrik Petrus Berlage in 1920
- (c) The elegantly sculpted Superleggera, inspired by a traditional chair from the fisherman's village Chiavari, redesigned several times by Gio Ponti between 1951 and 1957
- (d) The extremely efficient creation in folded steel and shaped plywood by Friso Kramer, called 'Result' dated 1958
- (e) A similarly engineered chair, the Cafeteria, designed by Jean Prouvé in 1950 to be demountable.

Photographs by Hans Schouten

the method of construction and the shape and detailing of the connections.

As students discovered rules, or better, the laws of nature and the design decisions specific to the different chairs, they explored the tiniest details. Visits to furniture factories, organized as part of the course, were eye opening. themes: design approach, attitude towards means of production, specific techniques applied in the example, cost-effective design, style or appearance, Then, based on their various findings, students started to design: sketching, making analytical drawings and building sketch models, before finalizing their design The final stage was the production of a prototype, 1:1 for the lamps, and 1:3 in case of the tables. In the faculty's modelling workshop students had access to 3D printers, milling machines, and an extensive wood and metal workshop.

Compared to earlier iterations of the course, which took place without the guiding focus of a particular chair, the students learned from a close exploration of the examples of the past. As a result, they worked in a more focussed way, exploring technical aspects of design work as well as aesthetics, resulting in richer results compared to earlier editions of the courses. Below we present a selection of the results, with a discussion relating each design to the chair that inspired it.



CHAIR: PANTON CHAIR BY VERNER PANTON



The 'Panton Chair' was designed by Verner Panton between 1957 and 1960. These were early days in the production of plastic furniture, and the fluent lines of this chair seem to celebrate the fact that in this material, no connections between legs, back and seat were required, and underline the chair's monolithic character. The organic shape of the Panton inspired a number of students. Although the chair is moulded in one material, it clearly expresses a seat, a back and a single leg. The shape of its bucket seat works aesthetically, but is also the result of ergonomic design. The surface of the chair has changed significantly over the years as the manufacturers have applied different kinds of plastic to simplify production and to enhance the durability of the chairs.

Students:

Ignace de Keyser Jeffrey Wong Harry Anderson Rik de Riicke Martijn Baelemans Koytrina Valečkaité Julian Ros



Ignace de Keyser 'Hourglass Table' reflects several of the Panton chair's characteristics: A clear top, an outspoken foot, organically formed. Like the chair, the table is moulded in one material (concrete) but as a result of technological developments, the mould in this case was 3D printed..



Jeffrey Won Table of Growth, a coffee table by Jeffrey Won, was designed to become a Panton family member through its organic shape with roots and its slight bend in the trunk. Won used 3D printing in white plastic for the 1:3 model.



Harry Anderson

'Crest Lamp' was inspired by the smooth rounded shape and the detailing of the Panton. The vertical ribs refer to the reinforcement ribs at the back of the Panton Chair, and are essential for the structure of the lamp. The lamp is made entirely from Plexiglass using laser cutting as the main method of production.



Rick de Rijke

'Virtual Table' can only be fully appreciated through virtual reality goggles. Panton delivered a promising vision on modern life in 1960, using new materials and techniques. Likewise, De Rijke set himself the task of creating a table for the future of 2016. De Rijke states that if current technological advancements continue, the required materials and techniques for his design will soon be available to create this extremely slim and strong table.



Martijn Baelemans

'Bali' is a meeting-room table: its scale can be guessed from the number of legs. The tabletop is composed of different organic shapes, whose outlines were inspired by an analysis of sections through the Panton Chair.



"Tribute to Panton' is the Panton Chair's opposite in several aspects. The skin of the two elements is far from smooth, but has a strong texture; its blueish black color is in complete contrast with the white of the chair. Still, Valečkaité managed to bring back the minimal detailing of the Panton Chair in the way the smooth plexiglass coverings are assembled. Only the unavoidable punctures in the skin reveal something about the method of assembly.



Julian Ros (right)

'Lamp', made of wood and plastic, is inspired by the elegant curved shape of the Panton Chair. The main design goal was to develop a lamp that suited the atmosphere of the era in which the chair was envisioned. The use of 3D printing to produce the connecting parts refers to the state of the art production technique Panton used.



ANALYSIS: HORIZONTAL SECTIONS

Martijn Baelemans

CHAIR: BY HENDRIK BERLAGE



This chair, designed by Hendrik Petrus Berlage, is the oldest chair amongst the five from which the students could select. It was designed in 1920 in a sober style that is typical of Berlage's furniture designs. The chair is traditionally constructed, from wood with hidden dowel joints. Only a few students were tempted to use this chair as a starting point for their own design, perhaps because of its traditional construction and restrained appearance.

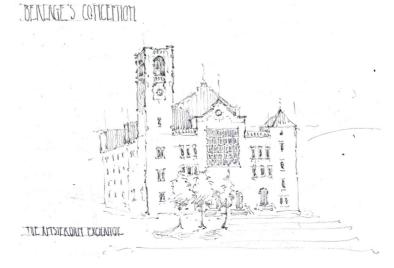
Students: Juan Barcia Mas

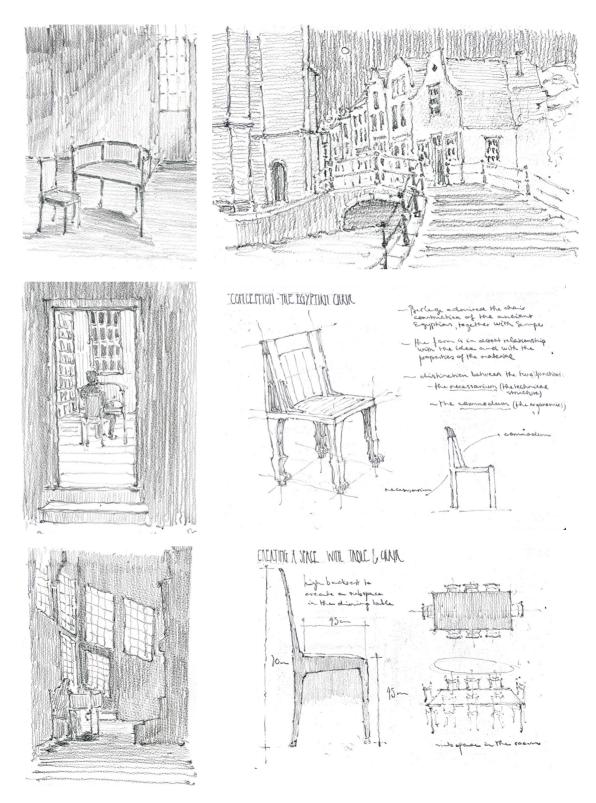


Juan Barcia Mas

Berlage table' is meant for writing and reading. The sculpted legs of the table suggest a direct relation to the chair of Berlage. The weil aspect of the round screen provides seclusion and the opportunity for observing others without being seen.

As one can see from the context drawing of Juan Barcia Mas, this student has a romantic view on life and has tried to capture an atmosphere. The sketchbook he made for the course is full of these beautiful drawings, showing buildings and furniture of Berlage.





CHAIR: SUPERLEGGERA BY GIOPONTI



The 'Superleggera' by Gio Ponti was designed between 1951 and 1957. Its superlight appearance is deceptive, as it is stronger than it looks. In a demonstration, Ponti threw the chair from a window on the fourth storey, without breaking it. Ponti spent years refining the very slim connection details, so that he could make the legs extremely thin. The legs of the Superleggera can only be this slim, because the fibres of the ash wood are left intact during the sculpting of the bend. Other means to save weight were to make the legs triangular in section, tapering the legs, and weaving the seat out of turned cellophane. Numerous students chose Superleggera, light and disarming, as an inspiration for their design. Superleggera is clearly a chair that allows for a lot of different interpretations.

Students:

Joeri Tober Maxim Houdijk Eline de Wall Martijn de Hoog Mathieu Hofer Kilian Mol Jan-Willem Spek Mickale Minghetti Nicolaj Friis Nøddesbo

Joeri Tober
The 'Different-Dialogue-Table' by
Joeri Tober is designed to contrast with
Superleggera, and is very heavy. The befty
legs of the table are in concrete, the table
top transparent in glass and the design is
a-symmetrical.





Maxim Houdijk
The front legs of the 'Imprevisto' writing
desk, by Maxim Houdijk, refer to the bend
in the back of the Superleggera. In striving
for contrast, it becomes caricature-like in its
heaviness and solid detailing.

Eline de Wall

'Wickertable' is a coffee table by Eline de
Wall. The distinctive shape of the legs was
based on traditional wooden clothes pegs.
The woven seat of the Superleggera inspired
the materialisation of the table's shelf. De
Wall made a series of sketch models in which
the dialogue concentrated on the wooden
legs and made studies using objects from
pencils to clothespegs, as can be seen here in
her final design.





Martijn de Hoog 'Table' is the generic name of a dining table by Martijn de Hoog, that could be placed in any household. The refinement can be found in the sculptured legs and the details of the connections of these legs; the rounded triangular profiles of the legs show through the table top like ornaments and are a tribute to the triangular section of Superleggera's legs.

Daan van de Valk Daan van de Valk's lamp focuses on ultimate reduction, inspired by the elegance of Ponti's design. Like the Superleggera, it looks deceptively simple. The lamp uses three different materials; concrete for the base, plywood for the spine and plastic for the shade. The concrete base is lifted slightly in order to create an impression of lightness; the spine, containing the wiring, curves elegantly to meet the clear, continuous shade, which consists of two types of plastic with a minimal seam.





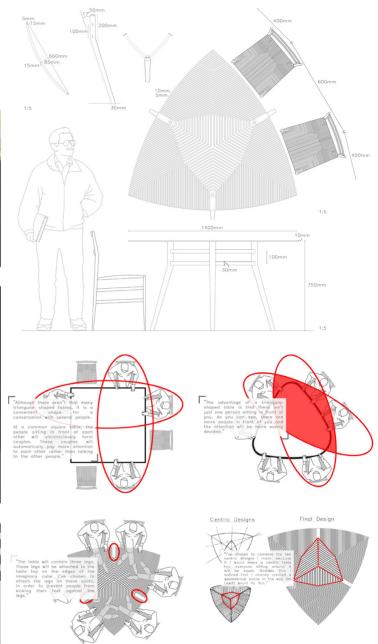
Mathieu Hofer
'Farmer's Table' by Mathieu Hofer
originates from a cartoon Hofer drew
about a farmer who lost his wife and
destroyed all his furniture in anger. The
story continues with the man transforming
his grief into creativity. He is confronted
with Superleggera and its lightness and
constructs a new table from the leftovers of
the broken furniture. The table's legs reflect
the lightness of Superleggera, but also the
directness of his practical life as a farmer.





Thomas de Hoog

Ply' by Thomas de Hoog strives for lightness with a simple use of materials and an elegant yet unpretentious style to match the Superleggera chair. The top is composed of plywood battens, a number of which form the legs as they curve down towards the ground. The other slats that fold down at an acute angle and meet them stabilize the thin, tapering legs.

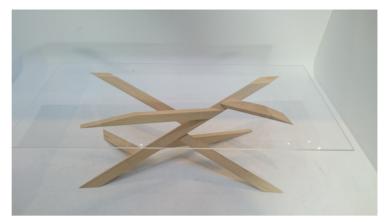




Kilian Mol

 $\hbox{`Canna Moderno', a coffee table by Kilian Mol, is an accurate reflection of the Superleggera.}$ The recognisable triangular, sculptured legs and the angle of the back of the chair and the woven seat are clearly visible. The weaving is graphically etched in the triangular top, another repetition of the triangular form, through which the legs are fixed to keep the top in place.

Jan-Willem Spek 'Congiunto' by Jan-Willem Spek was based on the connecting details in the Superleggera. The name of his design means combined, which tries to express the combined effort of the joints in his table in holding up the table top.



David van Nunen The lamp by David van Nunen is probably as close in weight as one can get to the Superleggera. The absolute minimum dimensions for the material of base and shade were determined after careful research into the lamp's balance. The lamp is balanced not only physically, but also proportionally. The refined connection between the paper and the support at the top of the lamp mirrors that of Superleggera.





Victor Gutgesell (above) 'Wolfgang' by Victor Gutgesell, is characterised by lightness and the reduction of detail. Led by the shape of the chair's legs, the supports are thin and triangular. The shape of the lamp-shade, determined by the construction and its detailing, with triangles in openings and relief, is made possible by the specific 3D printing technique applied. The resulting texture adds a great deal to the lamp's expression.



Mickael Minghetti

'Uno Scrittorio', by Mickael Minghetti, is a writing table. The wooden joints of this table and the tapering legs and top truly inherited the elegance of the Superleggera. The stark and dark steel parts form a strong contrast with the elegant wood.



Nicolaj Friis Nøddesbo 'Le Fibre' by Nicolaj Friis Nøddesbo is extremely elegant, tiptoeing on little golden hoofs. The shape of the legs was inspired by the 'natural' bend in Superleggera's backrest. Nøddesho experimented with different shapes for the legs of his table, all organic forms. He studied animals and ballet dancers in different positions to capture the muscular expression of their legs.

CHAIR: THE RESULT BY FRISOKRAMER



The Result chair by Friso Kramer may not appear very spectacular at first sight, but its construction is extremely efficient. Kramer achieved a maximum of strength and rigidity through clever folding of the steel parts in the support structure. The angling outward of the legs makes the chair very stable. The students came to appreciate these characteristics, and other details, through their analyses of Result and other works from Kramer's oeuvre. In the end the majority of the group chose the Result chair for their dialogue. This chair, however, proved to be an inspiration for very different designs.

Students: Cas Marien Lars Kloeg Frank van Vliet Stephan Bastiaans Thomas Edes Toby Stafford Nikki de Boer



Cas Marien

'Crook Table' by Cas Marien exposes the thinking of an engineer, with the folded steel shifted from the legs of Result to the table's top. Marien found a composite material that could create this effect; the fold over the length stabilizes the top and simultaneously forms the connector for the legs.



Frank van Vliet
'The Fold', a coffee table out of one steel plate,
pushes the punching, cutting and folding
Friso Kramer uses in the legs of his chair to
an extreme.



Lars Kloeg

'Svelte' is slim and lightweight. Kloeg strove to make a thin and stiff tabletop and a stable support through folding across the shortest span of the table. Steel and aluminium give this table an industrial appearance.

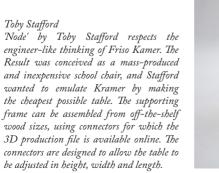
Thomas Edes 'The Bureau' was inspired by the angled legs of Result. The inward angle, instead of outward, creates a modest, introverted support for the glass top.





Stephan Bastiaans 'Proceed', a high party table by Stephan Bastiaans, translated the optimized use of materials in the Result chair into a wooden foot with a glass top. The smoothness of glass and the sculptural quality of wood were important in the choice of materiality. The result was a stylized foot (trunk) with the effect of rising out of the ground.



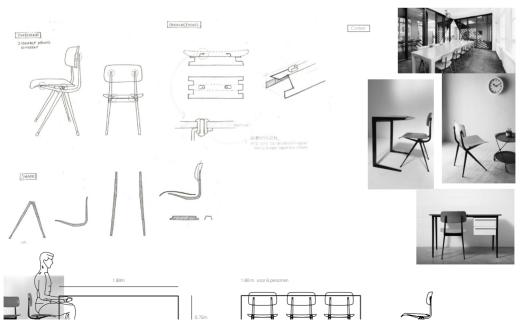


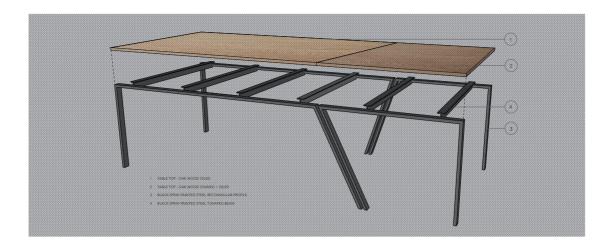


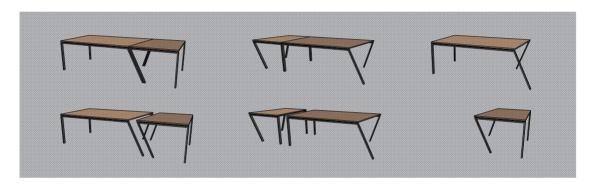
Nikki de Boer

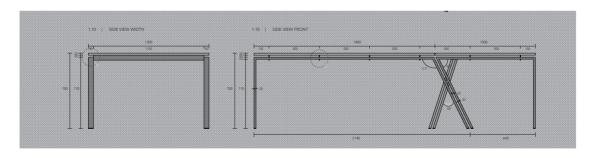
N(o-con)EXT is a large set of two tables in the same materials as the Result chair. The outward-angled legs of the Result are mirrored to give identity to her set of tables, in such a way that this set becomes united.

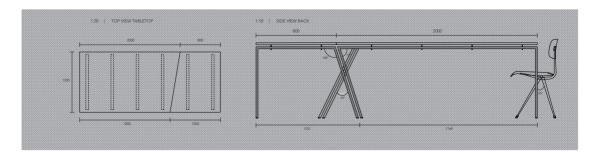














Bonnie Schaafsma

'Mag Pie' is made of a combination of materials: concrete, black painted steel, wood and plastic. Although the appearance is clearly in contrast with Result, the industrial appearance and light, open construction match that of the chair. With every part precisely formed, proportioned and connected, the lamp makes reference to Kramer's design.

Thomas de Boer 'Elegant Swag' is only reminiscent of the Result in its use of plywood and the combination of this with steel in the lampshade. Elegance in the angled form of the leg refers to the era of Result's development.





Stef de Groot

This lamp can be seen as a current reflection on Result. The connection between the two legs is similar to the connection of the seat in Result. The technique of laminating layers of thin plywood allowed De Groot to integrate the wiring in the support of the lamp. The aluminum shade was made on the turning lathe from one piece of aluminum.

CHAIR: THE CAFETERIA CHAIR BY JEANPROUVE



The 'Cafeteria Chair' by Jean Prouvé is made of the same materials as the Result by Friso Kramer. The difference is in the shaping of the steel, specifically on the backside of the chair, which shows its strength with its stylized muscles. Where the connections of the steel and the plywood are more or less hidden in the Result, they are, in an ornamental way, very visible in the Cafeteria, expressing the idea of a demountable product.

Students:

Tim Mechielsen Jeroen-Paul van Bussel



Tim Mechielsen

Contrast', a coffee table by Tim Mechielsen is designed for use in combination with the Cafeteria chair. The legs are very similar in shape, and appear to be bowing down to the chair.



Jeroen-Paul van Bussel

The table by Jeroen-Paul van Bussel is completely demountable. The separate parts of the table can be cut with a laser cutter, using files available online. Once the Perspex and plywood elements are cut, no skills or machines are required to assemble the table. The wooden parts of the puzzle-like table are superficially burned to become intensely black.





Job van den Berg This robust lamp refers to the era Cafeteria was designed in. Simple materials and connections make it possible to assemble the whole lamp at home. The heart of the lamp is the most critical and most sophisticated part in the design. An inventive connector that refers, in its shape, to details of the Cafeteria chair, holds the light fitting.



Thomas Blundell

'A Reading Lamp' is characterized by the visibility of all its parts and their functions. The detailing is an important link to the Cafeteria chair; it is easy to imagine that the lamp can be taken apart and reassembled.

CHAIRS & SETS

Jurjen Zijnstra

Chairs seem to fascinate many architects and designers. They are amongst the most essential pieces of furniture, and directly correspond to the human body. In addition, chairs are also objects with a long and interesting tradition. A great number of architects and designers have explored the material, tectonic or sculptural possibilities of these pieces of furniture.

In our Msc2 project 'Chairs & Sets' we have investigated a number of chairs with a deliberate disregard of the chairs as iconic objects. Instead, we have attempted to approach them as part of a domestic environment. Students were asked to explore ideas of domesticity through the design of a 'set', a fragment of an imaginary interior, in which the chair would be one of the players. Sets are temporal, three dimensional constructions that are created for displaying objects or scenes. They appear in museums, exhibitions, fairs, departments stores, as well as in photographs for magazines, on TV, in videos and in movies. Sets create an environment that is experienced from a particular point of view, either in real life or in a photographic or cinematographic setting. In that sense, sets are strongly related to the world of staging and scenography, to the typical 19th century phenomena of diorama, panorama and period rooms, and to the related fields of photography- and film-staging. Today, with the ever-expanding possibilities to create virtual realities, sets remain as relevant as before. Despite the fact that sets have, by nature, both a temporary and a fragmented character, set design is able to raise important issues related to architecture and interior design.

In order to focus on the domestic environment, we began this project by putting the chairs aside and investigating the idea of domesticity in a very wide sense. We organised, in cooperation with the Design Academy Eindhoven, a one-day symposium entitled 'Domus Communis: Strategies of Intimacy', in which a variety of views and ideas on the notion of domesticity were presented and discussed. In the following week we asked each student to reflect on the theme of the symposium in the form of a model, rather than in written form or through an oral presentation. The result was a great variety of models, ranging from the very abstract to the most figurative doll's house. Each week the students were required to build a new model, the requirements becoming progressively more specific in theme, scale and size. The students were asked to choose a chair from the TU Delft chair collection, from which they built a 1:10 model, which was introduced to their models to question the idea of domesticity.

Students:
Geertje Bakens
Nienke Borgman
Stephanie Cijntje
Thomas Hayat
Jochem Hols
Felicia Hompus
Alexis Ierides
Liza de Jong
Simone van der Linden
Niek de Rond
Danique van de Sanden
Erik Stigter
Dominique Wolniewicz

From the thirteen individual models presented in December, the group selected four to be built at 1:1 scale by the groups in January. For most students, this was their first experience with building something 'real', exploring the possibilities and limitations of various materials and techniques. The students experienced the fascinating excitement of constructing something at human scale. Finally, the students were asked to photograph their sets, thereby defining the way to literally frame the chair in its set and picture the illusion of domesticity.

With financial support by Leoxx and Modular Lighting Nederland Thanks to: Houtwerk Delft, Van der Velde metaal, Egon Schrama, David Grandorge, Frans Sturkenboom and many others

Below: Some of the models created as part of 'Chairs and Sets' by students Liza de Jong, Simone van der Linden, Alexis Ierides and Jochem Hols

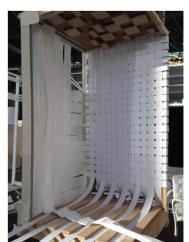












CHAIR WITH ARMRESTS

by Alvar Aalto

Set by: Liza de Jong, Simone van der Linden, Alexis Ierides, Jochem Hols

This set is reminiscent of a giant loom. Inspired by the woven seat and back of Aalto's chair, this installation has produced a woven interior, paying homage not only to Aalto but also to Gottfried Semper and his interest in weaving as the origin of architecture. The solid timber frames hold fragile bands of paper. On one side these bands are made of tracing paper. Here, a translucent facade is suggested, or perhaps a screen for projecting shadows. On the other side, small rods hold bands of plain white paper in place. Here, the woven carpet continues from the frame to the floor on which the chair stands. But the woven wall of this interior has been bewitched: a window recess pops out of the surface in one direction, and what appears to be a picture frame pops out in the other. At the top of the loom, the woven strips of paper bend in two directions, the paper alternating with plywood bands. This set, where the fragile paper carpet responds to fluctuations in temperature and humidity, constructs a full size model around a real size chair, thus confusing our established notions of reality and representation.







HILLHOUSECHAIR

by Charles Rennie Mackintosh

Set by: Felicia Hompus, Danique van de Sanden, Stephanie Cijntje

This set plays a game. At first glance, the chair seems to sit in highly realistic surroundings, the suggestion is of the corner of a room with a window placed high on the wall, and a fireplace. The forms, colours and finishing seem to indicate the reconstruction of an early twentieth century setting, which suits this well-known chair. On closer examination, however, some ambiguities become apparent: there are books placed in the windowsill, which has the dimensions of a small bookcase; the fireplace has drawers, transforming it into a desk. On re-examination of the Mackintosh chair, one notices the same ambiguity: perhaps it would be better to describe this chair as a freestanding ladder with a low base. In addition to this functional confusion, the three elements are also slightly distorted in form and proportion. The chair has a very low seat with a strange perspectival form and, inspired by this peculiarity, the window's frame is exaggerated, which contrasts with its too-thin mullions. The fireplace becomes a thick desk on curled supports, connected to a fictional chimney. In this game of distorted figurative representation, the idea of domesticity is surpassed by uncomfortable ideas of style and modernity.







MONASTERY CHAIR

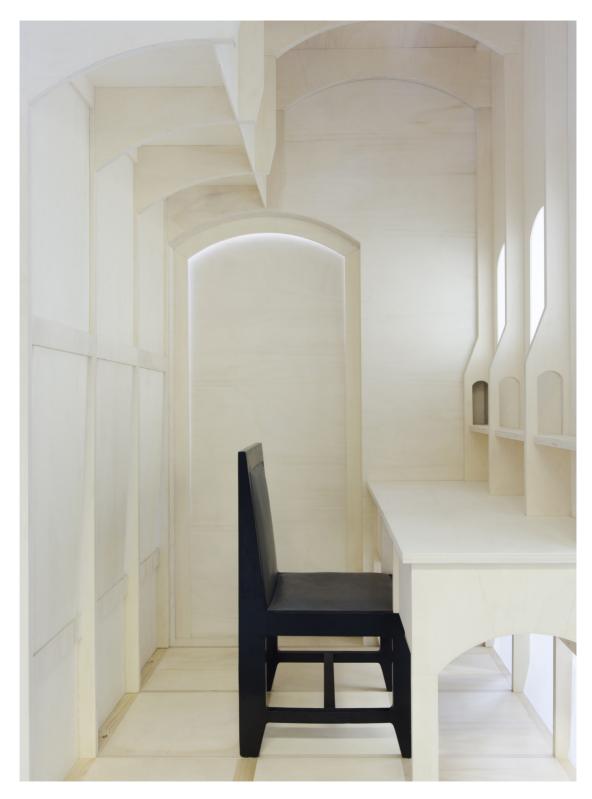
by C.M. van Moorsel

Set by: Niek de Rond, Erik Stigter, Dominique Wolniewicz

It is not difficult to see the influence of Antonello de Messina's painting Saint Jerome in his Study in this set. It shares the ambiguity of the study as both a piece of furniture and a room and, closely related to that, plays with different scales. A door, reduced in size, appears under the table and suddenly the space under the tabletop becomes like a hall, with the legs of the chair and table as columns. But it is not just a game of resizing familiar elements: various parts of the chair itself are also transformed and manifested in this compact room. The tabletop is copied in the ceiling, and the back of the chair and its connection to the supports is multiplied in the wall. Still, the game avoids the easy joke: all the scaling, repetition and transformation is integrated into what might be described as one 'mannerist-gothic' interior of a room. This interior itself may be read as an aedicule, as an inverted fragment of the exterior of a church. And in this way the dark painted chair, designed for a monastery, forms the starting point for a whole range of associations, which here are carefully built in unpainted plywood.







DIAMOND CHAIR

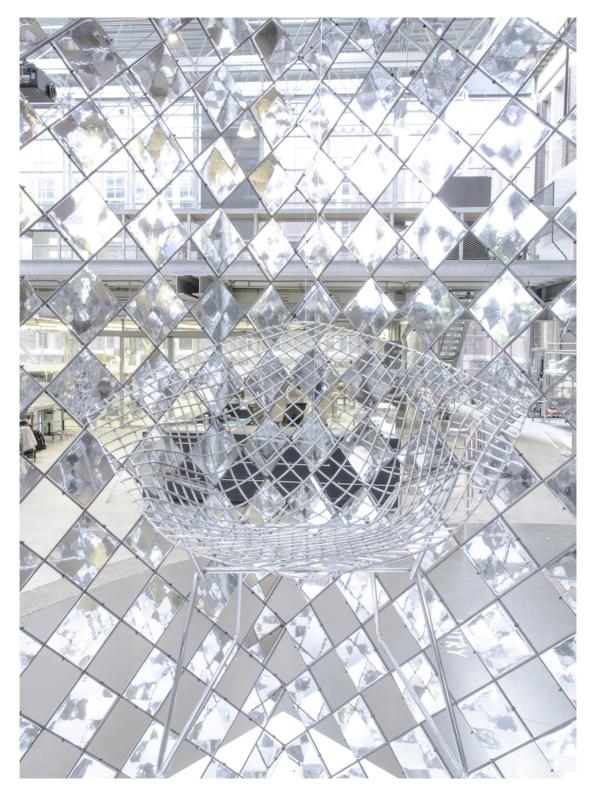
by Harry Bertoia





Set by: Nienke Borgman, Thomas Hayat, Geertje Bakens

A tall box or a cage, this set seems to deny any illusion of interiority or domesticity. Its diamond-shaped grid runs in three dimensions, reinforced by the black and white checkerboard pattern. But the draw of this installation is not the grid or the pattern; it is what happens inside the cage, where glimmers of light and fragments of distorted images are continuously reflected by the mirrors that line the white tiles. When close enough to look inside this mirror-box, the viewer will notice Bertoia's Diamond Chair floating in the middle of this curious cage. There is a clever play with the material and sculptural quality of the chair, with its glamorous and joyful modernist minimalism, and even in its name, so characteristic of American design of the 1950s. But we also see a cage that both protects the chair and imprisons it: it seems impossible to get in or out. The poor Diamond Chair represents the fate of all the chairs in the collection: they have lost their chair-ness and become sought-after objects.

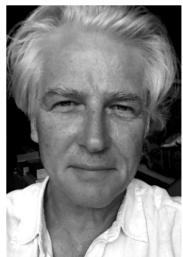


CHAIRS ON CHAIRS

Chairs on Chairs is the title of a series of interviews started in January of 2015, in which the professors holding various Chairs of the Faculty of Architecture and the Built Environment share their thoughts about items in the Chair Collection. The intention of the series is to discover how the differences between the Chairs might be reflected in the chair preferences and the professors' reasons for their choices. The interviews were conducted and edited by Małgorzata Neumann, who was a student in the Chair of History of Architecture and Urban Planning at the time. Each interview was published individually on the Chair's website between January and October of 2015.

During that period, six interviews were conducted with the heads of four Chairs belonging to the department of Architecture: Tom Avermaete (Methods & Analysis), Mark Pimlott (Architecture of the Interior), Susanne Komossa (Public Building) and Peter Koorstra (Form & Modelling Studies), a fifth in the department of Architectural Engineering + Technology: Ulrich Knaack (Design of Construction Chair), and the last one in the department of Management the Built **Environment:** Alexander Koutamanis (Design Construction Management Chair). Naturally, each of the interviews runs a unique course, due to the individual position and





area of interest of each respondent. However, four important questions every time in slightly different formulations, creating an opportunity for a meaningful comparison and joint discussion of the series. Whether the intention stated in the introduction of each interview is fully met remains to be seen, it seems rather a stretch to extrapolate the individual accounts of the Chairs to represent their entire staff. However, some issues that seem worth pursuing are raised, and a meaningful conclusion is possible.1

To start the conversation, every interviewee was asked which chair in the collection was their favourite, and why. The motivations revealed a wide range of interests, but the replies also showed a remarkable consistency in their form. The explanations of favourite chairs stated by each of the interviewees were threefold: one part relating more strictly to the individual chair, this leading up to a more general design theme, and thirdly, in every interview the interviewee shared a personal memory relating to experience of the chair.

For a faculty where design and technical considerations are central to most courses, the possibilities of connecting education to the chair collection can easily be recognized in most interviews. This

is not necessarily about having students design chairs, but about the possibility of using it as point of departure. A chair can function as a representative of an architectdesigner's other work, demonstrating design themes also apparent in their architecture, or a historical period. The designer's technical approach to the chair can open up questions about mass or craft production, or illustrate the impact of technological developments on design. A particular chair might also lead to a reflection on design culture or the reception of design in a given country. Or it can illustrate Vitruvian firmitas, utilitas and venustas², perhaps on a more manageable scale, because of the less strenuous demands made







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by climate and gravity on furniture, compared to full-scale buildings. All of these examples form a bridge to the content of a course, or a way to focus student design work.

It is also worth considering how students learn and how they can be stimulated to engage with the course material in such a way that it stays with them. To be effective, education should be engaging, something that is possible through the personal involvement of the teacher, and through relating to the personal experience of the student.

As mentioned before, each of the interviewees talked about a longtime favourite chair, a chair that connected with memories was or experiences. These memories range from time spent abroad as a student to memories of childhood, youth, parents, and friends. This shows that, amongst architects and

designers, it is the proximity and intimate connection to the body of the occupant that is particular to the chair, which makes it stand out among other objects. A chair is often the place where we interact with those closest to us, but also where we work and learn. In that way it can become a trigger for memory. There is benefit in giving the student access to first-hand experience through an object physically present in the studio.

Most interviewees agreed that this benefit is not achieved by asking students to simply design a chair from scratch. In answer to the question of whether architecture students ought to design a chair, the replies appear to reflect the various Chairs' approaches to design. Ulrich Knaack is the only one who would have his students design a chair, because of the larger room for experimentation with new materials or techniques that a chair offers, compared to a building. Tom Avermate (Methods and Analysis) points out that here is no difference between design method for a chair, a building or an urban plan, so why design a chair? Alexander Koutamanis of the Management Chair would prefer architecture students to stick to their core business, and leave chair design to students of Industrial Design. All valid points, the conclusion can only be that our respondents were not asked the right question. It now seems obvious that it should have been: "Should students be allowed the chance to learn from an existing chair?".

In three interviews the respondents seemed to change their answers to fit this question: they would have their students study an existing chair to learn how it works, or how serial production works, or to use it as a focus on materials and detailing.





The physical presence of objects is an important asset in design education. It focuses attention and generates experience. Architecture and urban projects are difficult to bring into the studio, simply because of their size. For students, architecture and urban projects are never really present, except for rare visits on excursions. This makes it necessary, in most cases, to represent projects through scaled drawings, renderings, photographs or models to enable a discussion with students. These renditions can be difficult to interpret for a student, and are impossible to experience as the realised project would be. When these factors are taken into consideration, the advantages of using an object of a more manageable size, let's say a chair, become clear.

Notes

- 1) In order to keep this discussion focussed on our current theme of collections and education, the answers to just two of those four questions will be discussed here. The replies to the other two questions, on the importance of sitting comfort versus aesthetics, or: 'is an uncomfortable chair still a chair?', and 'did your appreciation of the chair, or chairs in general, change over the years?', also proved to be fruitful starting points for a discussion. They will have to be taken up elsewhere.
- 2) Firmness, convenience and beauty, Vitruvius, De Architectura, I.iii.2







CHAIRS ON CHAIRS: ULRICH KNAACK

Interviews conducted and edited by Małgorzata Neumann.

What is your favourite chair?

The Eames chair is a nice, structural design. It has its technical story, nice aesthetics and you can sit on it quite well as well. I like the use of materials, for example how the shell is made out of polypropylene. It is my favourite chair if I have to choose for now.

Do you think that it would be useful for architecture students to design a chair during their studies?

Chairs or interiors are easier to design in a more experimental way, because there are no environmental influences like rain, sun, big pieces falling off and killing people that need to be taken into consideration. Gravity is an issue - of course - but only to a certain extent. That is why new technologies and techniques appear in the interior and furniture design first and that is why it could be a good idea to let the students try to design a chair. Moreover, by having a closer look at a chair's structure and detailing, you can learn how it works in an everyday situation and when, for example, you start to balance it on just two legs.



How much attention should be given to furniture and chair design?

Every design is important. I remember reading Steve Jobs' book in which he describes a frustrated worker who was annoyed by spending a lot of time designing the calculator icon. Jobs argues that making the smallest part of the design perfect results in a good design as a whole. It guarantees a quality that will be recognized and appreciated by non-professionals on daily basis. All objects and tools we use should have this quality.

Do you think you would have valued the same aspects of chairs 20 years ago?

I actually remember when I saw the Eames chair for the first time. It was interesting for me to see this closely a structure and detail. The disadvantage is that they are expensive, so as a student you don't buy expensive chairs.

Do you collect chairs yourself?

Strangely enough - yes. I didn't feel the need to have one until I started to use the chair collection at TU Delft to explain some structural principles to the students during lectures. If the group of students was small we went to the exhibition and discussed how the chairs were made. The TU Delft chair exhibition consists of all possible materials and types of details. It is a small universe of construction problems, which is easy to understand because everyone knows how a chair works from their

own experience. After I found the chair collection really useful I bought different chairs for my new office as well. Using this small collection of different chairs I can express better the issues I want to discuss with my clients.

To what extent is a chair a practical object and to what extent is it a piece of art?

To answer we should first answer the question: to what extent we, as human bodies, interact with the surrounding, how we use it? Chair need a few basic functions to work. It is possible to find aesthetic understanding in essential construction. From this understanding many design directions were developed guided by current material possibilities. Now we are in the situation that we see aesthetic quality as a value as well. This is the reason why Apple are so successful. It is a nice design besides the fact it works quite well. Making an artistic object is the next step and this is when you end up with chairs that don't work.

What do you think about the chairs from Ikea then?

Good quality follows money. Ikea sell low-budget products and it is good that many people can afford it. On the other hand, Ikea's furniture becomes old-fashioned very quickly. They change their range every few years, after around four years its furniture is getting old. The Eames chair is different. They are 40 years

old and they still look hip.

Can chairs influence the behaviour between people and the way people interact with each other by way of design?

Yes, I think they can. Once I saw an extremely interesting design, somewhere in a castle in the South of France. It consisted of two fixed chairs standing next to each other where one was turned 180 degrees in reference to another one. I thought it would be a very good chair for educational reasons: when you are very close to a student to express and explain something but you still have a barrier between. Maybe it will need some improvements, but it could improve the way of teacherstudent meetings. Chairs influence people's behaviour, some make us sit straight and focus better, others let us relax.

CHAIRS ON CHAIRS: ALEXANDER KOUTAMANIS

What is your favourite chair?

The answer is easy. It is a chair by Niko Krajl. He was from Yugoslavia, a country that doesn't exist any longer. After the Second World War, Yugoslavia was rather prosperous because of the mixed economy. Niko Krajl designed a plywood table and chair set. My parents used to have his set and used it as patio furniture. I think you shape your opinions about objects like chairs from your own experience. When I was a small boy I sat on them. They are very comfortable in their basic form, even without cushions. They have to be my personal favourite!

And what do you think about the chairs that are difficult to sit on? Do you think they can still be called 'chairs'?

They can be called whatever you want. The question is: would you buy them? Would you like to sit on them? What strikes me is: why are architects so interested in chairs? At some point no architect could become famous if they didn't design a chair of their own. However, most of the time architects are not good at chair design. This makes the collection of chairs a rather strange collection of pride in our faculty. The chairs in the collection are usually interesting in terms of their form, sometimes in terms of structure. However, in terms of use many are not good enough.

We spend a big part of our life sitting. I became an architect thinking that it wouldn't be a purely office job, that besides working at your desk you would still go to building sites, at least walk around your big drafting table. Really? The



only thing you move nowadays is your elbow in front of the computer. Chairs have become an invisible support of at least one third of our daily activities. That's why you have to be very careful and critical about chair design.

Would it be a good exercise for architecture students to learn how to build a chair?

Not at all. Not far from here there is a flourishing Faculty of Industrial Design Engineering, where they make real chair designs. Let's be honest about it: they know much more about the ergonomics and production of chairs then we do. Architects work at a scale that is not restricted to an object, but rather a room or a building. I wouldn't be keen to see our students designing chairs because of yet unsolved problems of the built environment around. Take a look at our faculty. When it comes to its functionality and climate, it is not a good building. I would prefer students to study how to deal with such problems -entrances, stairs, flexibility in space or structurerather than design a chair or a bridge. Let industrial design engineers and other specialists do their job and focus on what architects should do best.

Do you have a favourite designer?

At this moment I am really into the work of Peter Opsvik, a Norwegian designer. He implements dynamic principles in chair design, so that the chair follows the movement of the person sitting. In this way, a desk chair can transform into an easy chair when the user simply leans back. His designs were massproduced by a Norwegian firm and 5-10 years ago they were rather popular around here.

Do you think that chairs can tell something about the culture they come from?

A part of my research is focused on affordance. It is an old English word that got a new meaning by Gibson, a psychologists, who used the term to denote the actionable properties of an environment or object. When you see a pen, you immediately know how to grasp it. When you see a chair, you know how to sit on it. However, if you want to sit on the floor, you can also do it; you just know how to sit on it and lean against the wall. Part of it comes from learning, from seeing what others do and experiencing what is permissible in a particular culture. The way we sit is also a part of our culture. The Japanese director Ozu put the camera at a logical height for Japan, which is eye level while sitting on the ground. In this way he created a completely different perspective that tells us about Japanese culture. The funny thing is that in his films about post-World War 2 Japan there are western chairs that weren't use for sitting, but were for decoration. If you see them in Ozu's films, your eye level is just above the seat. It is a strange view that reveals the contrast between Japanese sitting customs and western chairs.

But even within a particular culture, chairs and sitting can reveal a lot. At this moment, we are sitting on the opposite sides of the table. Why? Because we want to see each other clearly but also because we don't know each other, so we keep a safe distance. When you are working with someone on a project it is more likely that you will sit on the same side of the table. It is not a chair that says about the culture, but how people use it, in which configurations and distances.

Do you think that you would have chosen the same favourite chair 20 years ago?

All the chairs I've liked in my life, I still like now. I like Opsvik's chairs and I have been buying them for the last 20 years. I choose a chair by trying it out, seeing if it fits to my anatomy, my movement. When comfort goes along with aesthetic preferences - as in my case with the Barcelona chair or the Eames lounge chair - it is easy to stick to the same preferences for very long time. There are also chairs that I would never like, for example typical office chairs, which I just tolerate. I definitely prefer comfortable chairs, which allow you to relax and forget that they even exist.

CHAIRS ON CHAIRS: TOM AVERMAETE

Which chair did you choose?

It is a chair by Hans J. Wegner, a Danish architect. The first reason I chose it is very personal. I studied and lived in Denmark for a long time and I know the chairs of Wegner quite well. What fascinates me about them is that they represent how Danish culture deals with design. In many other cultures, design is exclusive, accessible only for a happy few. When you look at Denmark you can see that design objects, like the chairs of Wegner, are used everywhere, in ordinary households, in institutions. For instance, when I was studying in the architecture school in Copenhagen, we sat on Wegner chairs every day. Danish designs from the 50s and the 60s - the lamps of Poul Henningsen or the chairs of Arne Jacobsen - are a part of everyday life, back then and now. As far I am concerned, this is the ultimate goal for design and architecture - to become something ordinary, accessible to everybody, democratic.

But is it only true for Scandinavia or is this phenomenon also happening elsewhere?

Owning a piece of Danish furniture anywhere else is an exclusive

privilege. That's why I would think of it as sort of a local culture phenomenon in Scandinavia that remains an ideal. I chose a Wegner chair because it is a precisely designed object that is a fully-fledged part of everyday culture. It stands out among other chairs that don't have this capacity, because they are exclusive experiments or they are chairs so ordinary that they look like they are not designed at all.

The second reason for my choice is that a Wegner chair represents three important aspects of design: innovation, a relation to the history of the discipline, and a sensibility to the ways that furniture is practised. All three aspects are also very important in the educational approach of Methods and Analysis. In our 'chair' the idea of innovation is very important. We are explorative in the instruments that we use and the analytical and projective approaches that we try to develop. Simultaneously, we do it in tandem with a very good understanding of the discipline. Architecture, just like the craft of furniture making, is a long-standing discipline with a great tradition. The history is there to be used, to be thought about, rethought, re-articulated. We relate innovative design with tradition,



but also with a practical use and a perception of it by the user. It would never enter my mind to create a chair that is impossible to use. However, I think that in the chair collection there are many chairs which are not comfortable to sit on.

Do you think you can still call these chairs pieces of furniture or are they sculptures?

sculptures, might experiments, and in that sense they are little pieces of art. Architecture and design should be innovative, related to the history of the discipline, but should also be able to be used. Keeping these three elements simultaneously present is of enormous importance. In my mind, it is not so interesting to focus on just one or two of them because the value of architecture lies in their combination. I will give an example. When you look at the chairs of Wegner you can quickly notice that they are very modern in form. When you look closer at how the chairs are crafted, detailed, how the

wooden parts are bent, you realize that this technique relies on a very long tradition of craftsmanship in Scandinavia. And at the same time, I can say from my own experience, because some of these chairs I have at home, that these chairs are fantastic to sit on. So, a combination of three factors is what I find extremely interesting and this is an approach we try to practice in the chair of Methods and Analysis as well.

Should architecture students make a chair at some point in their education?

What could they learn from it? I don't make a big differentiation between a piece of furniture, an interior, a building or a city. I am following the thought of Jaap Bakema, a Dutch post-war modern architect who said that architecture reached from 'Van stoel tot stad' which means 'From Chair to City'. Should architecture students design or make a chair? It could be interesting, because making a chair requires taking a position in terms of innovation, discipline and practical matters. But does it necessarily need to be a part of the curriculum? No, because you could learn the same things from designing a city or a building.

Do you think that a chair has to be specifically designed to make a space? Does furniture always have to be designed?

Are you asking if architecture is necessary or not? Obviously I think that yes, it is. Why? Architecture is necessary because it represents the culturally reflective dimension in the built environment. Obviously we can build cities without any architect being involved, but there are certain choices related to the collective domain and the public realm which have to be taken care of. There is a certain professional needed who can represent shared values. I think it is fine that there are parts of the city that are generic and developed, for instance, by developers. But on the other hand, there are crucial points in the city that have to be designed. For furniture, the same logic can be maintained: architects and designers are crucial in linking to common traditions and values. And here again Wegner's work is a beautiful example. It illustrates how a strong attention for the Scandinavian tradition of woodwork and detailing formed the basis for designs (chairs, tables, cupboards) for the masses. Reaching the masses was, for Wegner, not a matter of mass production, but rather of coupling formal innovation to the common values of craftsmanship. The high quality of material, design and detailing secured that these chairs are used and re-used for years, so they have proved to be very sustainable as well.

Do you think you would have chosen the same chair 10 years ago, 20 years ago?

Most probably not. If I had had to choose a chair at the beginning of my career, I would have chosen a chair that represents a certain kind of radicality. And to be

honest, this shows my own limited understanding at the time of what radicality is about. I understood it only in terms of a form, not taking into account many other aspects that are part of architecture or design. The further I am in my career, the more I understand that keeping complexity present in architecture is central. And I am becoming more and more convinced that it is an enormous mistake to reduce architecture only to formal expression or invention. Let's look at the Wegner chair again. Imagine that fantastic craft of bending wood, its quality, or the detailing of the joints. Or the choice of wood or reed as a material for a seat. Wegner did not invent these techniques. He used what was already known from the manufacture of old farm chairs and gave it an innovative form. That is why sitting on his chairs is a completely different experience to that of sitting on plastic chairs as we are doing now, having this conversation. Probably in minutes we won't be able to stand sitting on them any longer. Why? Because although they look very good formally, they are a disaster to use for a long time. I once heard a story about Philip Starck who designed a chair that looked very cool but it couldn't stand. They had to put extra weight in one of the legs in order to balance a chair. As a student, I would have been be fascinated by these formal innovations, but now I know that although they look nice, they are very mono-dimensional. And architecture and design is a multi-dimensional matter.

CHAIRS ON CHAIRS: PETER KOORSTRA

What is your favourite chair?

My favourite chair is no. SZ02 designed by Martin Visser. After I finished my studies, I went to the 'T Spectrum factory in the South of Holland and I fell in love with this chair at first sight. I bought two of them from my first earned money; it was around 500 guilders each. Quite a lot back then, although now this chair costs around 1500 euros. The design of this chair is simple - square steel frames on the sides with one piece of leather caught in another frame hanging in between. There are only few details, but they are all very refined. However, because of the years passing, the leather wore out and a piece of steel started to be felt through the leather. After an hour of sitting on it, you couldn't feel the blood in your toes any more.

So, is it not comfortable to sit on?

I fixed the tension of the leather and it is comfortable to sit on again. What I like about this chair is that because of the leather you can see the age of the chair. I think that if a chair, besides the years of mistreatment by animals and people, remains so beautiful, it is a good design.

Are you more attracted to its physical beauty than to its practical use?

It is both. A chair must be comfortable, but only to a certain extent. Martin's Visser chair is a very fine chair to read a book in or in which to have a conversation. On the other hand, its purpose is not to be occupied for hours, and you definitely won't fall asleep on it.

What do you think about chairs that are difficult to sit on?

I doubt that they can still be called chairs. They are more sculptures, studies of means of manufacturing. A chair is made for comfort. It should serve a man, whether we work, read a book or eat a dinner. It has to be ergonomic, however nowadays many chairs lack this feature. I think it was around 50s or 60s when they discovered that to support back properly, a chair has to have a certain adjusted angle in the area of your lower back. It was developed by Bengt Åkerblom and is called the "Åkerblom knik". Rietveld probably didn't know about it. His chair is flat and it ruins your back.

A chair is used for comfort. On the other hand, when you put 20 chairs in the row and they are each equally comfortable, in the end you choose the one you personally like. A chair is an object that in German you would be put in the category 'Ich Nähe' product – an object that is very close to us, and therefore should be carefully chosen. Eames came up with a beautiful definition of a good design – it is the balance between manufacturing technique, material, detailing and aesthetics. This definition is true also when it comes to chairs.

Do you think that architecture students should design a chair?

I think that it could be a beneficial exercise for architecture students. Architects have done it over the ages, mostly in cooperation with design factories. A chair adds to the atmosphere of interiors, it is one of the most important objects we see in the buildings. Moreover, designing a chair asks for all the aspects that can be found in architecture. A chair is a small definition of space that deals with materialisation, detailing, and the manufacturing method. Actually, a few years ago in the faculty there was a minor in which students were asked to make a chair. I was a bit critical about many

students who focused on being very original in form instead of exploring the possibilities of the material and detailing. They ignored those two aspects, which are impossible to ignore, especially when it comes to a chair design. It is interesting how chair materialisation has developed since the 60s. Plastic brought new possibilities manufacturing of methods. I think that the same would be possible nowadays with laser cutting techniques, even with 3D printing techniques for some parts. These are revolutions not so much in shape, because a structure of a chair is rather simple, but certainly in the materialisation and textures. And students should be aware of that.

You said a chair can change a space. Do you think it can happen only when the chair is specifically designed or chosen for certain space, or can any chair change a space?

Any chair influences the space it is in. Chairs partly define the character of space. The interaction between building design and furniture design results in the atmosphere of the space. Furniture adds another layer to the whole design because most of the time it has another material, colour, surface or purpose.

There is a chapel designed by Mario Botta in the south of Switzerland. There are rows of benches inside, which are designed to make you sit very concentrated, straight. I have some doubts if one can meditate sitting on them, but they surely complement the architecture. The

architect paid a lot of attention to the detailing of the connections of wooden surfaces. This attention given to detailing is why they match the design so well.

In general, detailing can be very intriguing and it is often the part I really like in chairs. Also, my common objection concerning chair designs a lack or simplification of good detailing due to the production process.

You bought your favourite chair as a student. Does it mean your taste hasn't changed throughout the years? Did your awareness of the importance of chairs change?

My awareness of the importance of chairs has changed. I bought the chair of Martin Visser when I was young and very strict. Since then I have seen a lot chairs of the times of Aldo Rossi that are almost jokes. You can laugh at them, but I think they are not good chair or table designs. This kind of design is extremely restricted to a certain time frame in which it was developed. After repeatedly seeing pieces of furniture where the shape is reminiscent of something else, you get bored. The most important thing about a good design is that it doesn't start to be boring. Fortunately, I grew older and I am more open to the various designs.

The value of the chair collection is highly underestimated among students. The collection should be far more integrated with the education and it is not well exhibited. For example, the chairs from the upper shelves are observed only from the bottom, while in reality you never experience a chair form this perspective. However, there are some changes coming up. This autumn, the chairs will be integrated within the education in the Master studio. It will be a good opportunity for students to realize the value of the chair collection and how much it says about time, developments in technique, people's taste, visions and opinions.

Do you have your own chair collection?

It is not really a collection, but I have few chairs: two Martin Visser's chairs, a chaise longue of Corbusier. However, I hardly sit on it because it is occupied by my cat. I might have one of the most tasteful and expensive cats in the world, who has a chaise longue to its own. I also have Eames chairs at the table and two very old Gispen chairs. I have Arne Jacobson's chairs in my house in Italy. Unfortunately, I don't have enough space for more, although I would like to have Eileen Grey's bench, it is so beautiful and artful.

image source: https://www.vntg. com/55130/sz02-lounge-chair-from-thesixties-by-martin-visser-for-spectrum/

CHAIRS ON CHAIRS: SUSANNE KOMMOSSA

Which is your favourite chair in the chair collection?

I love chairs in two respects. First, they are reminders of the work of certain architects. For example, if I see the chairs here in this room. which were designed by Jean Prouvé, they immediately remind me of his architectural work, which is about lightweight constructions, foreign countries, travelling etc. On the other hand, chairs are strongly related to memories. I gathered many chairs in my life that I associate with some particular stories. I have a couch by Le Corbusier, which I got from my mother as a present when I graduated and it is still with me. Also, I contributed Schuitema chairs together with Otakar Mácêl, the founder of the chair collection. It is a nice story, because I got this Schuitema chair (pictured) from a friend, who found it in the garbage. Otakar visited me once and when he saw that I have this chair he asked me whether I would like to sell it to him. He also had one and he would like to have a pair. But since it was a present I couldn't give it to him, so he gave his chair to me. After the fire in the former faculty building, the chair collection moved to its current place opposite to the library. For this

occasion we donated both of our Schuitema chairs to the collection.

Many such stories can be found in literature as well. In 'From Bauhaus to our house' Tom Wolfe describes the arrival of modern architecture in America. He talks about Mies van der Rohe's design for Harvard University. Imagine a traditional campus where Mies arrived with his 'box'. Americans were so shocked they didn't know how to react and, as Tom Wolfe describes it, they did not say anything and 'took it like a man'. With regard to Mies' arrival at Harvard, there is also a story about a young couple studying architecture. They had one Mies van der Rohe chair, but they were saving to buy



another one because 'Mies always used them in pairs'. Chairs are memories and this is what I find most fascinating about them.

So, you don't have one particular chair you like the most?

If I had to choose, I would say that my favourite chair is a chair by Poul Kjærholm, however it is not in the collection. It is quite expensive, so I will wait for a good opportunity to get it.

What do you think about chairs that are difficult to sit on?

I think that it is exactly what the nature of a chair is. Basically, you could sit on a piece of rock. The function of sitting is so minimal that a chair can be everything. Some chairs are horrible designs, but are beautiful as sculptures. For example, if you think about the paper chairs by Frank Gehry, they remind us about the early phase of his work that we have almost forgotten. He was the first architect to create buildings with found materials: very sustainable in the contemporary point of view. If you look at his current building designs, this aspect of his design approach is gone. However, I think that the cardboard chairs still prove the best moments of his career as an architect.

It is very difficult to find a designer chair in the rubbish. They are usually expensive and only small part of the society can afford to purchase these kinds of chairs. Are chairs exclusive?

I can imagine that it could be possible to find a good chair in a second hand shop; it doesn't have to be very expensive. Or on the other hand, why not to wait for a special occasion or certain point in your life that will be suitable for a more costly purchase? When I visited Milan for the first time, we spotted the Mickey Mouse chair by a Japanese designer. My boyfriend liked it, but it was much too expensive for him to buy as we were still students. However, the first thing he bought after his graduation was this particular chair. When visiting a house you can immediately notice if somebody has put a lot of money into displaying their status, or if they want to present a collection of chairs that reflects their personal life, memories or stories.

Do you think that students of architecture should design a chair at some point in their architectural education?

Designing a chair is probably one of the most difficult tasks, so expecting a student to design a good piece of furniture in few months is a bit unrealistic. For instance, having a closer look at Maarten Van Zeveren's school chair, you can understand how much knowledge and experience is needed to design something so genius. However, there are some aspects of chair design and production process that could be used as a good didactic aim. For example, learning how to design a chair that is unique as a singular object and, at the same time, that has the capacity to be reproduced thousands of times without losing any of its qualities. Simultaneously, learning how to actually make a chair within a serial production process could be also a beneficial lesson.

I have an impression that you need some time to realize the importance of chairs. Do you think you also went through this process?

Looking at the chairs I have back home, I have a feeling that the more you get involved in architecture and designing, the more sensitive you become about the complexity of chairs. Chairs are objects which you have to use and live with in order to fully appreciate them. And let's come back to the chair collection at this moment. In order to make students aware of their importance, the chairs from the collection, which are potentially safe to use, should leave the exhibition shelf and be put at students' disposal. They should be used, touched, met on, in order to stay in students' memory as something very special. Then they could say: 'Oh, yes, we had a coffee on these particular chairs' or 'it is the chair next to which I have met her or him'. That would be fantastic!

Do chairs remind us only about personal stories or do they also say something about the culture they come from? What about the chairs from Ikea?

If you look at a milking stool from the collection, you can read a lot of information hidden in its form, its material, and the way it is made. It tells a story about its culture and how it was used in this culture. It received an almost eternal life because of this story. When it comes to the chairs of Ikea, they fall apart very quickly, you could say, they commit suicide in due course. They miss the capacity to last long, which is necessary to be able to really call them 'chairs'.

Do you have a favourite current designer?

My favourite contemporary designer is Hella Jongerius, a Dutch designer. She wants and I think she is able to design, what she calls, the antiques of the future. Her design of the Poldersofa was considered classic from the moment she designed it, which I think is a great capacity. She works beautifully with textures, colours, she experiments a lot. Her work proves that some abilities you can learn only by experience. Like Rothko's paintings, her chairs are the results of long lasting experimentation. There is no other way to develop that capacity. In this sense, chairs indeed belong to the realm of perception and experimentation.

CHAIRS ON CHAIRS: MARK PIMLOTT

Do you have a favourite chair in the Chair Collection?

I have a shortlist of favourite chairs, which is rather long. If I have to choose, I would say that my favourite one is the superlight or 'Superleggera' chair designed by Gio Ponti in the early 1950s. What I particularly like about it is that it hangs on to the image of the conventional Italian chair due to its styling. On the other hand, it looks very modern, like from the space age. Saying 'being modern is being old, too' suits it very well. And this is constantly happening in Ponti's work. He is experimental, radical, and at the same time, traditionally Italian. It is very difficult to have one of his chairs at one's disposal, so the fact that we have it in the chair collection at TU Delft is special.

The Superleggera chair is my favourite, but there are more on my list. For example, JJP's Oud 'easy chair' from 1933, which is very comfortable, is a chair I used to sit on it all the time in our office of Interiors in the old building. Fortunately, they put it in the basement before the fire, so it has survived. Also, Marcel's Breuer 'Wassily chair' (1929-30) or Harry's



Bertoia 'wire chair' (1950-52) are favourites of mine. I am also really interested in Thonet's bentwood and cane chairs and, among others by Achille Castiglione that are not in the collection, a milking chair.

Do you think that chairs that look more

like sculptures can still be called chairs?

I think they can sometimes be brilliant as ideas. It is impossible to sit on the Rietvield chair, but it is nice to see it in the room. I have a bit of a chair collection myself and among them there are some chairs which you really cannot sit on comfortably. They look great, though. I don't have any kind of moral stand against chairs you cannot use. They are important players, like pets in the house. They have a symbolic value while taking a special place at the table or standing somewhere next to the window. I am fine with that. I am a big supporter of the useless chairs.

Do you think that students who study architecture should design a chair at some point in their education? What could they learn from it?

My answer is going to be an anecdotal one. After I graduated, I was working in an office and I had to design a piece of furniture. I designed a chair. It looked great in the plan and elevations, but when we prototyped it, it was hopeless to use. There was too much material. it was very elaborate and heavy. Then, my employer ordered me to create a copy of a Biedermeier chair from 1830s-1840s. Biedermeier is German, neo-classical, usually made of light wood; this chair was a classic axe-head design. I was obliged to look at it and measure it very carefully, re-draw it and re-make it. That was such a fantastic process. It taught me about the form and technique, about all the essential parts of a chair that held it together and made it strong and comfortable. The proportions had to be very precise and even the most tiny element was essential for the chair. The first exercise, which compares to the task that might be set for a student, of just trying to design a chair is a difficult one

because, in fact, it takes quite a lot of time, effort, and failure to learn how to design something like a chair. The second exercise, learning from a chair that works about how it works, was a fantastic education, and one worth following as model for a student project.

When I started teaching I carried out a little course, during which I used to point to one of the standard TU chairs and ask students: What are we looking at? What is this? Why is it shaped like that? What does it remind you of? I asked about a standard, non-designed chair, a bit like asking about the kind of chair which Le Corbusier typically used in his drawings. He called it un objettype, an anonymous object. There are many of these in the collection, office chairs and folding stools, and they are very important for me. They are very efficient in the way they communicate to users and usually they have a cultural signifier within them. They contain some ideas and represent how we live in those ideas. I think that especially non-designed chairs can give that information away much more rapidly than chairs which are designed by architects. With students I examined all the different cultural contributions to shape and design of this kind of chair. The standard chairs are not my favourites in the collection, but I know that they are the friendliest

It is often very practical furniture which tells us something about the world it came from. There is a field chair in the chair collection, created for military camping. It can be taken apart very easily, folded up and carried away. First of all, it tells us about how the military campaign were being fought, but also, its elegant profile reminds me of the profile of furniture you would see depicted on walls of tombs or on papyruses in ancient Egypt. There is a deep historical feeling in it, and about some 19th century furniture, that it has been around forever. I like furniture that alludes to faraway places, like this bamboo and rattan furniture from the collection. There is a Swedish company, Svenskt Tenn, which made a lot of furniture of this type in the early 20th century. The pieces were very suggestive. The fact that in Sweden they would have been very popular items in certain social circles, meant that people who owned it would have been a part of worldwide economy; they wanted to evoke a feeling of 'elsewhere' in their homes. And that is very beautiful thing that chairs can do.

Can chairs tell stories?

Yes, and I am very interested in furniture that tells us a story about the culture that created it, the stories behind furniture, and chairs, are interesting and odd. In 1893, a big exhibition took place in Chicago; the Americans were insecure about what to show. They presented some buildings that looked like European buildings reminiscent of cakes, but coincidentally, they also showed standard stuff like tractors, equipment, tools, chairs, etc. When

the Germans came to the exhibition they were much more interested in these standard objects, than in the buildings. The people from the Deutsche Werkbund, who were solemnly dedicated to efficient and functional furniture, were very much inspired by unconscious American production. So, in the chair collection you can find this German chair from the 30s, which is an incredibly heavy article deriving from German architects' reading or understanding of American standard models. The communication that happens now on a global level between different cultures through mass-produced designs is a very special aspect of chairs.

I've been reading a beautiful book, 'A History of the World in 100 Objects' by Neil MacGregor, the recently-retired director of the British Museum, and it is a story about a hundred items from the British Museum's collection, from ancient times to more or less the present moment. He unlocks these objects' great significance and what they say about themselves, about the cultures where they were made. I haven't come across a chair yet, but certainly every artefact has a lot to tell us, it has a powerful role to play. I think it is amazing that we have the chair collection at TU Delft, particularly because chairs are not straightforward objects. They appear to be straightforward because they are just chairs, but they play an important role in the environment they are in: the immediate environment, but also

the cultural environment. At the university everything tends to be straightforward, scientific. Chairs are complicated and it doesn't make them bad, it makes them good, although I think there is this notion in the air that something that is too complex is not worth hearing about.

What about the worldwide phenomenon of Ikea? It is available everywhere people use this furniture designed, or copy-designed, in Sweden. What does it tell us about those countries' cultures?

It is interesting that you pointed out Ikea, because Ikea adjusts production of the things they offer depending on where it sells them. For instance, in England they sell stuff that looks older because people there cannot handle 'the modern'. There are also countries that are naturally more adventurous than the others. Each different country absorbs products of Ikea, which, in turn, consist of many other influences. Ikea borrows from enormous range of representations of other, carefully designed furniture. Its products are cheap, of course, it helps to sell them more easily, and through them, Ikea can communicate immediately to its audiences. The function of the standard objects will be always the same, but they are all subtly different in each country. Distinctness of each culture will always have an impact, even in the age of globalization.

Do you think you would have chosen the same favourite chair 10, 20 years ago, in the beginning of your architectural career?

When I started architecture school, I thought the coolest thing was the Wassily Chair designed by Marcel Breuer. I thought it was cool because it was said to be everything that was modern. At that time I was also attached to the 60s chairs, the plastic stuff that looked like it was from the Space Age. Also, I had a longing to the 60s furniture because when I was a child I really wanted to live in Space. For example, the Selene chair by Vico Magistretti or the transparent folding chair by Giancarlo Piretti were inspiring parts of my fantasy world.

Which leaders in chair design do you appreciate nowadays?

There designers: are various Konstantin Grcic, who designs unspeakably uncomfortable, but great, chairs. The late Maarten Van Severen, whose chair is everywhere in this building, with a rubber seat and the legs that stick out; Patricia Urquiola, who is a great designer; there is a trio called Altherr, Molina, Lievore, who design these kinds of 'nostalgic' modern chairs. And I have the greatest—paradoxical—respect for Philippe Starck, who seems to be a very silly man but understands how objects communicate very well. I have one of his chairs, the Costes chair, which was designed for the Café Costes in Paris in the 80s. There are also designers like Piero Lissoni. There are many inventions, but not many of them strike you as being chairs that will continue to cause you think about them in years ahead.

