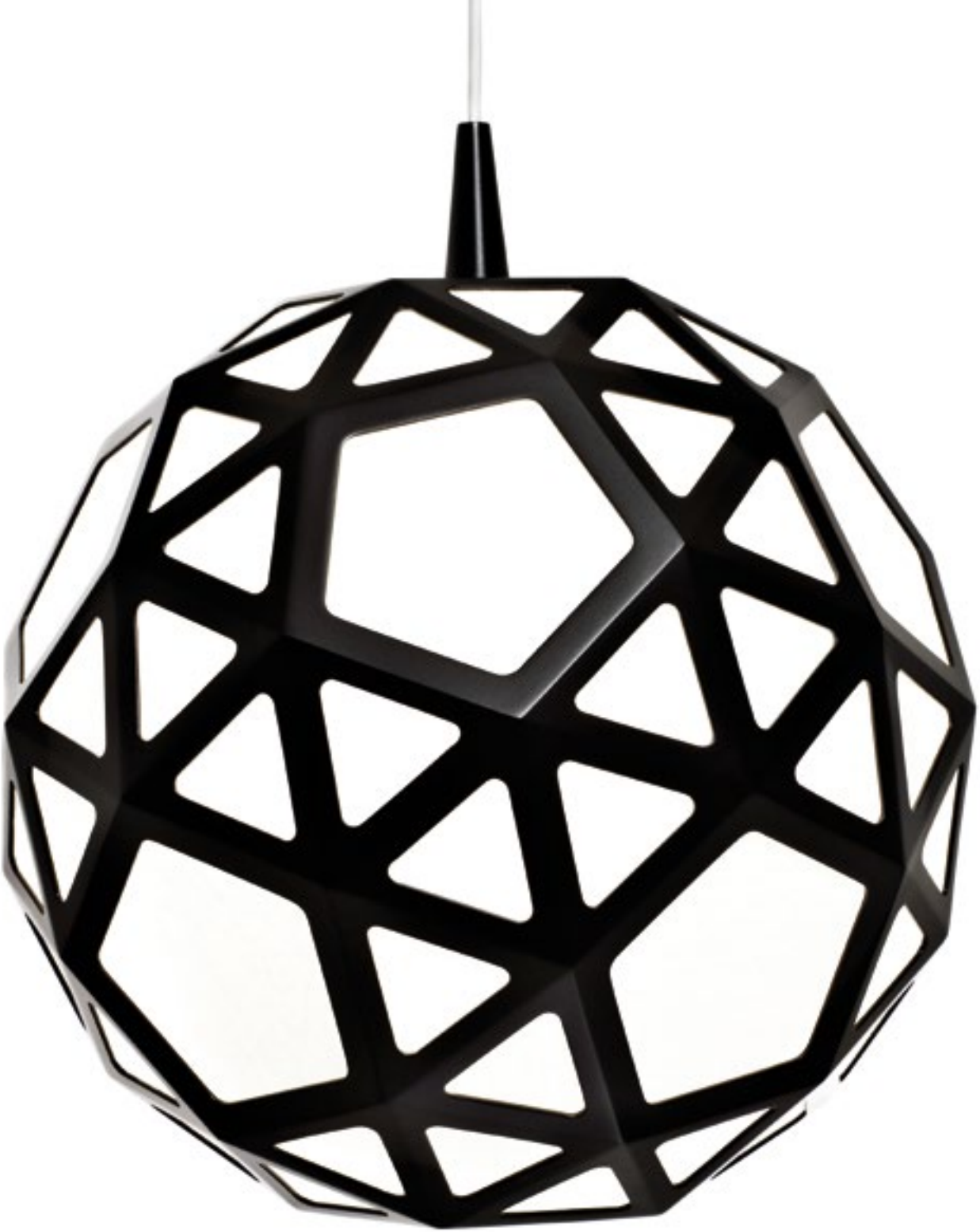

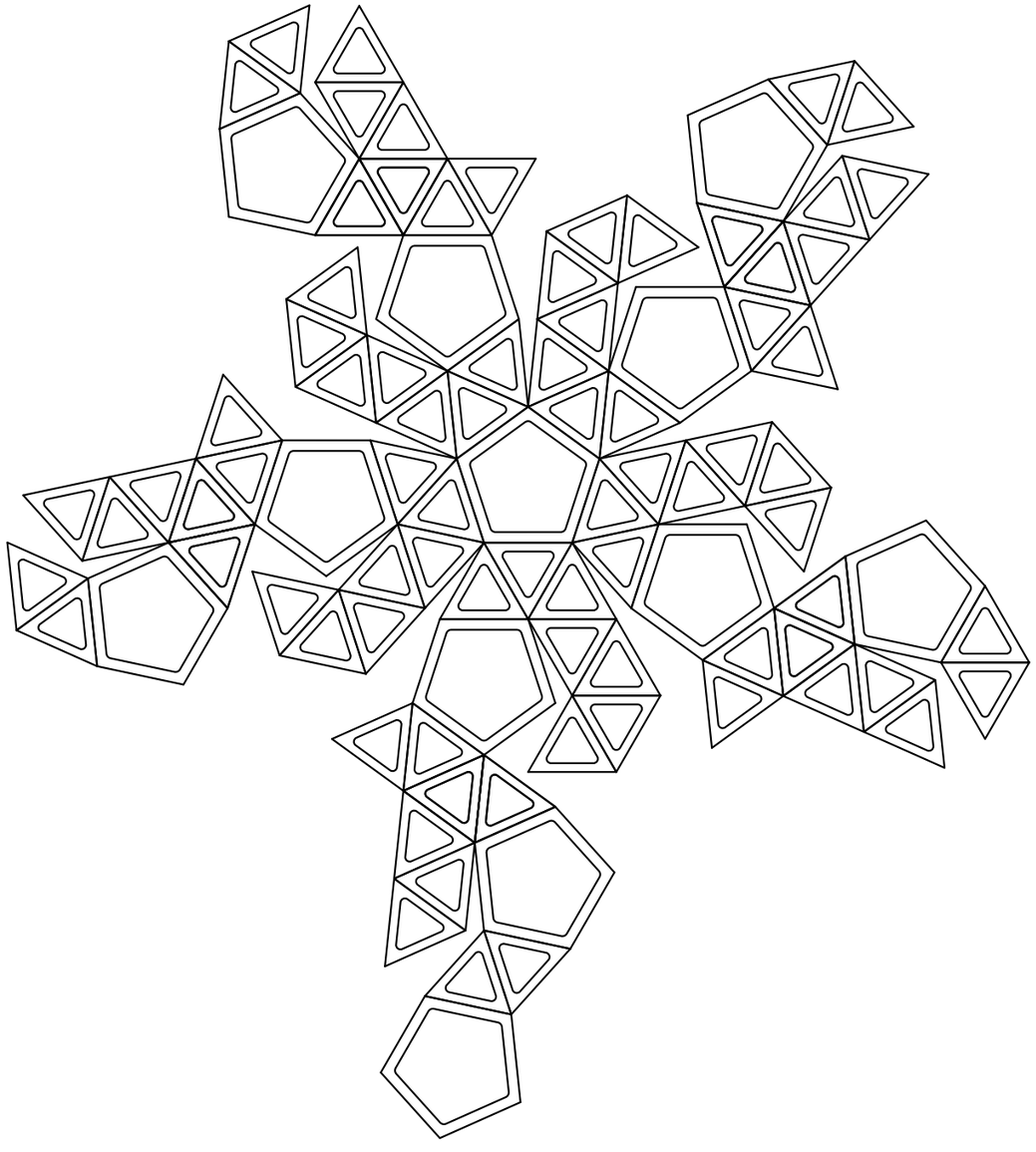

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RASMUS FENHANN

JAPANOMETRY

PREFACE
by Maria Wettergren

Zooming in and folding out

Looking at Rasmus Fenhann's work, it becomes clear to me that Japanese Zen and mathematical beauty were bound to come together and form a noteworthy couple. With *Japanometry*, the Danish designer makes a signature exhibition exploring the meanders of pure geometrical form through origami-inspired wood constructions. Danish by birth but with a Japanese soul, Rasmus Fenhann invented the clever neologism *Japanometry* to evoke his two major inspirations, Japan and geometry. Visually and linguistically, this exhibition seems like a kind of statement. But of what exactly? Ten new works in wood, or design-sculptures, as I would call them, are conceived specifically for the exhibition. Light-weight and rather small in scale, their crystalline shapes are remarkable through their combination of cool perfection and soft, delicate appearance.

It has to do with being able to zoom in, infinitely, Fenhann says. There mustn't be any flaws, not even the tiniest, in the delicate woodwork of a great Japanese master cabinetmaker. Time is key, and infinite repetition is expected until a level of breath-taking perfection is reached. In Japan, significant cabinetmakers are not expected to be like ordinary human beings. It's impossible to have a family life and do normal everyday tasks, since you have to be completely dedicated and devote your entire life to this Zen principle, Fenhann says. He knows from close-hand experience, as he himself has gone through several internships in the workshops of Japanese master cabinetmakers, such as Kohseki, during his travels in Japan in 2001 and 2003.

Indeed, to a large degree Fenhann's work represents the aristocratic quality of delicate handmade cabinetmaking expressed by the Japanese term *Sashimono*. His work is guided by the same principles of simplicity, repetition and respect for wood as a living material. His painstakingly precise treatment of wood surfaces, ending up in a velvet-like, soft finish and with invisible joints, is the result of an extraordinary effort, which is both mental and physical. It is absolutely exquisite, close to obsessive. In the Japanese aesthetic tradition, unlike the European, there is no separation between the work of the mind and the hand. The fact that Fenhann rejects the idea of an assistant and produces all his pieces himself in small limited editions can be seen in this holistic perspective. He does not work with the industry either. As the hand and the mind form a single spiritual bond, there is a kind of unique and non-transmittable type of work at stake here.

However, this does not prevent him from using high-technological devises such as the CNC (Computerized Numerical Controle) and CAD (Computer Aided Design) machines. The majority of his complex geometrical forms are designed by computer, and part of his works is CNC-cut. This is perhaps one of the most significant characteristics of Fenhann's work, and also quite an achievement, since the two worlds of craft and machine are generally rather suspicious towards each other. Having the Japanese spirit and skills under his skin, he simultaneously manages to break free from the restrictions of pure craftsmanship by exploring the high-technological means of manufacturing in the present day. For him, the connecting link is the natural geometrical forms such as those observed in crystals. The perfect beauty of mathematical harmonies has certainly fascinated humankind since Antiquity, but our computer age is particularly capable of unfolding the infinite richness of nature before our eyes, just like an origami. Indeed, by zooming in and by modulation, Fenhann transforms complex geometrical principles into stunning sculptural forms.

The polyhedron is his absolute favourite, as it is the most harmonious and resistant of all geometrical forms. The origami-inspired *Hikari* lamps (*Hikari* means *light* in Japanese) are all polyhedrons constructed of almost paper-thin Oregon pine veneer only 1.8 mm thick. The first *Hikari* lamps were made in 2004, and the following year the Designmuseum Denmark opened a solo exhibition for these works, entitled *Aero*. Since then, Fenhann has been developing complex variations of these lamps as well as the lightweight table-sculpture *Kubo* from 2007.

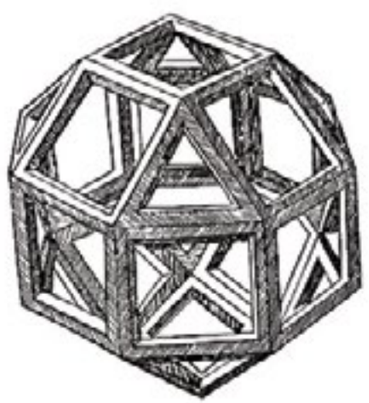
It might be interesting to note that both the *Hikari* and the *Kubo* are a homage to the so-called *Leonardo da Vinci Polyhedron*, illustrated in Luca Pacioli's *Divina Proportione* (Venice 1506). Fenhann shares the Renaissance artist's fascination of geometrical beauty but this may also be a clue to a deeper understanding of his work. By proposing a dialogue between the mind, the hand and inventive technologies, thereby minimizing the boundaries between arts, crafts and science, Fenhann's work is interdisciplinary in a way that does not seem far from a Leonardo da Vinci state of mind. Fenhann's art is technically rich in the Greek sense of the word "techne", often translated as *craftsmanship* or *art*, and it is actually related to the word "tekton", meaning *carpenter*. The underlying idea is that wood is a raw material that the artist, or technician, shapes, thereby forcing the form to manifest itself. The Latin equivalent to "techne" is "ars", and that term's primary meaning is *know-how*, *skill* or *artfulness*.

The words *technique*, *craftsmanship* and *art* are etymologically closely connected and inconceivable without each other, because they proceed from the same existential attitude towards the world. But as

Kubo prototypes, made for the exhibition *Branching Out* at Designmuseum Denmark, 2007

the Czech-born philosopher Vilèm Flusser (1920-1991) has reminded us in his book "Von Stand der Dinge. Eine Kleine Philosophie des Designs", this bond was broken by modern bourgeois culture and its radical separation between fine arts and the world of technique and machines, which divided our culture into two radically separated domains: The "hard" quantifiable field of science and the "soft" qualitative faculty of the arts. However, as Flusser has pointed out, design has the great ability to *creating a bridge between the two because it embodies the intimate relationship between technology and art ... leading the way towards a new culture.*

This is what the Bauhaus-school did so masterfully, and also today, similar tendencies of interdisciplinary activities are becoming manifest. Fenhann's design must be seen in this light. Through the timeless language of pure geometry, he contributes to the reconciliation of technique and art, tradition and innovation, and opens up new perspectives towards a synthesis between art, craft and the machine.



De divina proportione, illustrated by Leonardo da Vinchi, printed in 1509

Hikari Rhombic, 2015
Oregon pine, Shoji paper
41 x 41 x h43 cm

Craft and Technology

By Christian Holmsted Olesen
Head of Exhibitions and Collections
Designmuseum Danmark

"Art and Craft" – that was the slogan of the early Bauhaus school, one of the most successful design schools in the early 1920's. Already in the mid-1920's, however, this was changed into "Art and Technology – a new unity" and became the headline for the idealist Central European design movement of the 20th century. In Denmark, a country that did not become fully industrialized until after the Second World War, the best of craftmanship was maintained, especially within the carpenter trade. In the 1950's, this particular craft succeeded internationally with architect-designed furniture under the brand Danish Modern. Professor Kaare Klint, who trained most of the major Danish cabinetmakers, felt that Bauhaus "threw the baby out with the bathwater" because the school rejected tradition and aimed to design on industrial terms. Tradition in the form of sublime craft and design based on historical types became the hallmark of Danish Modern.

Rasmus Fenhann's paternal grandfather was a carpenter, his great-grandfather was a cooper, and just like most other major cabinetmakers of the 20th century, he trained as a cabinetmaker before being accepted into the Danish Design School. Despite being a designer, his craft is an obsession for him. Fenhann himself states that the focal point of his work is "craft and technology". More than anything, this probably has to do with the joy and fascination of sensuousness and precision. Every object must be perfect, no matter how close up you get, and everything must come right – but still the object must maintain a textural effect, just like nature's own materials.

Fenhann does all of his designs by computer, and without a computer he would not be able to make his complex geometries. Afterwards, the geometric shapes are cut on a computer-controlled moulding machine. Fenhann is not afraid of modern technology but he himself puts everything together and completes it by hand. Only thus can everything come right. And his work is all about the forms or the formulas coming right, like mathematics. Everything must be perfect; in this way he aims for the sublime. For the cabinetmaker, the single detail, e.g. the precise joint, has always been an obejctive in itself. Modern technology has made us better at calculating and thereby better at doing things in a very precise way. Thus the old craft, carried on by Fenhann, is even more perfected.

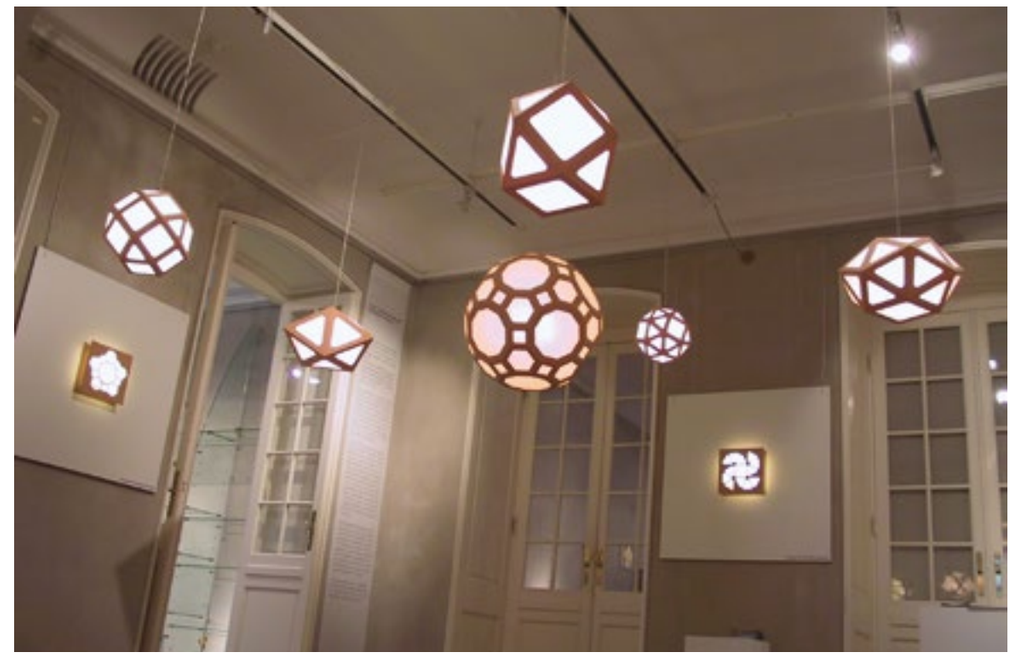
Throughout the 20th century, Japan has been a grand tour destination for Danish artisans and designers. Both Denmark and Japan have been able to maintain a pursuit of tradition in a modern, complex world. And both countries emphasize the importance of thorough work processes and worship the spirit of the material. In Japan as in Denmark, you still find people insisting on seeing a job through all the way from idea to completed object. It is not without reason that Japan today is one of the most important export markets for modern Danish furniture; this also has to do with a shared pursuit of simple constructions based on function.

Rasmus Fenhann went on his first grand tour to Japan in 2001 and again in 2003. Altogether he stayed for more than six months in three different cabinetmakers' workshops, including the famous Kohseki that produces Japanese tea houses and rice paper lamps. At another workshop, he learned all about the Japanese sliding doors partly made of paper. Both the lamps and the sliding doors fascinated Fenhann.

During Fenhann's last couple of years at the Danish Design School, he attended lectures on the spatial and constructional possibilities of geometrical structures. After another stay in Japan, Fenhann began producing lamps. The Japanese lamps may have geometrical shapes but they are always built up around solid sticks. Instead, Fenhann was preoccupied with the flat surfaces and with the realization that even if you remove a large part of the flat surface's middle, it will fully maintain its strength when produced as a polyhedron construction. In 2004, the first lamps came into existence, and in 2005, Fenhann were able to present his first lamps called *Hikari*, meaning *light* in Japanese. This took place at the one-man exhibition *Aero* at Designmuseum Denmark. In previous years, Fenhann had become preoccupied with aircraft plywood, a material that Japanese cabinetmakers do not use.

The distinctive feature of Fenhann's Japanese lamps is how they are constructed of flat surfaces with large holes in them. Rice paper is glued across the holes and sticks tight like the skin of a drum. The flat surfaces are assembled by mitre joints, which means that they are glued together along the edges with perfect precision. This makes for an incredibly strong construction, demanding great force to destroy. The challenge is the assemblage of the two accurately and obliquely cut edges, and this is also what fascinates us. The lamp has no framework in itself; the aircraft plywood is the construction that makes the shape hold. After the first lamps, many different polyhedrons have come into existence, also in the shape of tables, wall lamps and floor lamps. The challenge that keeps Fenhann going does not just have to do with the new shapes he develops with his computer; it is working with the material itself, a material that is made ever thinner without losing its strength. An important part of his aesthetic expression is his choice of wood with streaked grain structures; this accentuates the geometry of the shapes, and at the same time it draws associations to the materiality of the Japanese wood lamps.

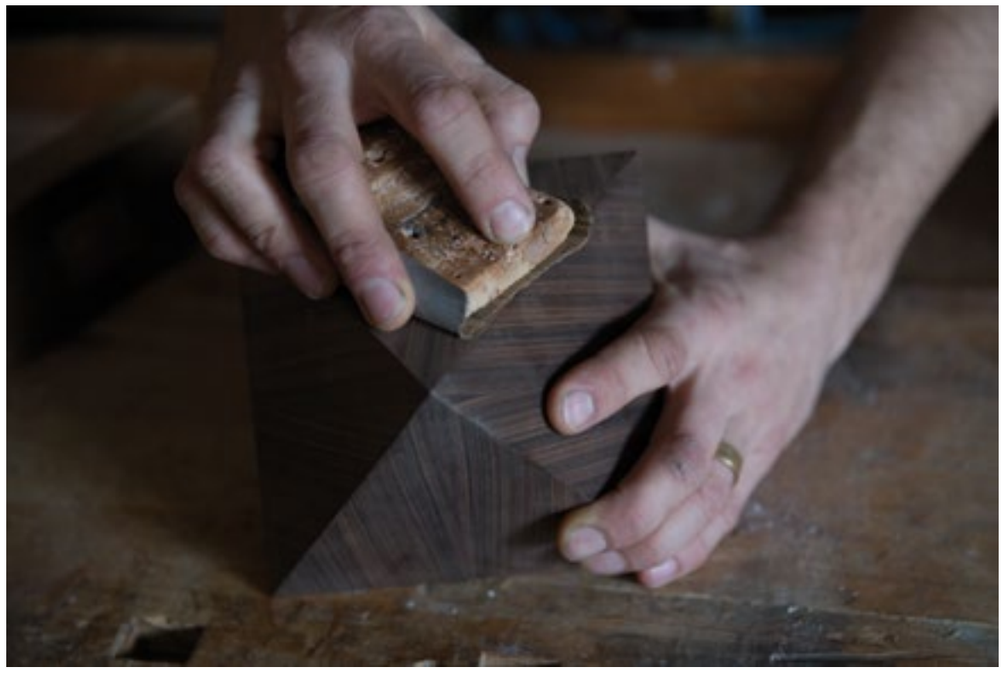
Fenhann's work method is a very conscious choice. As early as in 2005 at Designmuseum Denmark, his designs attracted attention, and more industrially oriented manufacturers have approached him. He has nothing against industrial manufacturing in principle. However, it has not been possible to manufacture anything slightly akin to a serial production of the lamps. Fenhann is not the kind of cabinetmaker to compromise when it comes to the quality of execution, and if financial prioritizing or the limits of manufacturing by machines mean reductions in this area he would rather abandon the idea. In 2010, Fenhann met Maria Wettergren, and she became the perfect business partner for Fenhann. Not only does Wettergren understand that producing a perfect and accurate form takes time; with her knowledge of interior design, she has also become an important sparring partner for Fenhann.



Solo exhibition *Aero* at Design Museum Denmark 2005

The new *Pyramid* and *Magnetic* tables came into existence because Fenhann saw an ethical issue with the great waste of material he generated when cutting out holes in his geometrical shapes. It had to be possible to make use of the triangles and squares. These turned into a kind of building blocks that caused even greater astonishment than the lamps. Double pyramids and stackable cubes. The cubes look simple enough but in fact, they demand even greater precision than the lamps when it comes to assemblage; they are meant to be placed immediately next to each other and so they cannot be the least bit crooked. There is no place for the shape to give way a little. The double pyramids have a powerful and exciting sculptural shape when stacked. As a playful element, the cubic building blocks are equipped with internal magnets to make them stack accurately all by themselves.

The mathematician speaks euphorically of the beauty of geometry. The cabinetmaker is obsessed with perfect assemblages, constructions and sensuous materials. In the designer and cabinetmaker Rasmus Fenhann, the beauty ideals from the natural sciences encounter the aesthetics of natural materials. The work of hand and machine are united to obtain what it is all about: absolute precision. The traditional craft lives on and creates new meaning when interacting with contemporary computer technology.

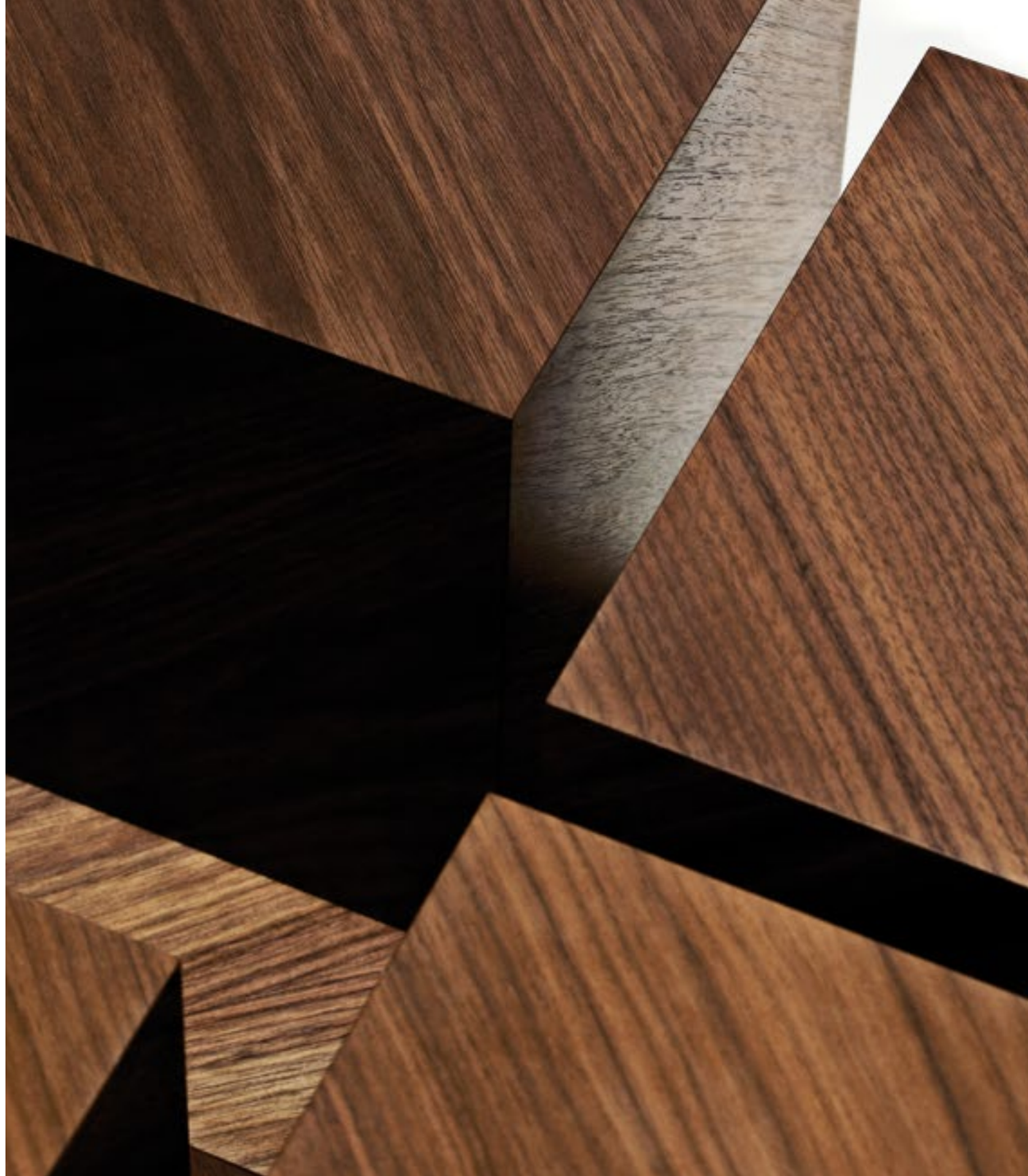


Pyramid grande, 2015
American walnut and Santos rosewood
55 x 55 x h46 cm

Detail, pages 18, 19

Magnetic, 2015
American walnut, magnets
Table 70 x 57 x h42 cm
One cube 21 x 21 x 21 cm

Pages 13, 14
Detail, page 15



Pyramid petit, 2015
Elm, glass
43 x 43 x h31 cm

Detail, page 17

Kubo, 2007
American walnut, glass
43 x 43 x 43 cm

Detail, page 21

Hikari Icosa, 2015
Oregon pine, Shoji paper
49 x 49 x h41 cm

Hikari Propello, 2015
Oregon pine with black lacquer, Shoji paper
43 x 43 x h43 cm

Hikari Tria, 2015
Oregon pine with black lacquer, Shoji paper
52 x 52 x d32 cm

Detail, page 25

Hikari SnubCube, 2015
Oregon pine, Cocobolo Base, Shoji paper
55 x 55 x h71cm (with base)

Detail, page 26

Hexagon Chair, 2012
Massive oak, wool
87 x 73 x h78 cm

RASMUS FENHANN

Born 1972, lives and works in Copenhagen

SELECTED EXHIBITIONS

Textility, Cabinetmakers' Autumn Exhibition, The Royal Danish Academy of Fine Arts 2014 / Crossing the line, Trapholt Art Museum, Kolding Denmark 2014 / Design Miami, Galerie Maria Wettergren, 2014 / The Salon, New York, Galerie Maria Wettergren 2014 / PAD London and Paris, Galerie Maria Wettergren, 2014 / Pierre Yovanivitch, AD France, Hôtel Particulier du Miramion Paris, 2013 / Storage, Cabinetmakers' Autumn Exhibition, Designmuseum Denmark, 2013 / Globalisation, Trapholt Art Museum, Kolding Denmark 2013 / Kunst på Fad, Frigatten Jylland, 2013 / Design Miami, Galerie Maria Wettergren, 2014 / PAD London and Paris, Galerie Maria Wettergren 2013 / Sculptural Furniture, Cabinetmakers' Autumn Exhibition, Thorvaldsens Museum, Copenhagen, 2012 / Recession, Trapholt Art Museum, Kolding Denmark 2012 / Design Miami Galerie Maria Wettergren, 2012 / New Nordic, Trapholt Art Museum, Kolding Denmark 2011 / Wood Couture, Galerie Maria Wettergren, 2010 / My Precious, International woodwork Exhibition, Designmuseum Denmark, 2010 / Crafts Collection CC14, Maison et Objet, Paris, 2010 / From seed to.., Bella Center, Copenhagen, 2010 / Second Nature, Japanese/Danish contemporary design, Rundetaarn, Copenhagen 2009 / From Nordic to Nordic, Bella Center, Copenhagen 2009 / Made in Denmark, 100% Design, London 2007 / Branching Out, Design Museum Denmark 2007 / Tasmanian Crafts Fair, Deloraine, Tasmania, 2006 / Vennelyst, Cabinetmakers' Autumn Exhibition, Frederiksberg Have, Copenhagen, 2006 / Sydform, Form Design Center, Malmoe, Sweden, 2005 / DANISH Framing the future of design, Danish Embassy, Berlin and in Design Center, Copenhagen, 2005 / AERO, Solo Exhibition, Design Museum Denmark, 2005 / Arts and Crafts Prize exhibition, Design Museum Denmark, 2004 / 10 years, Danish Cabinetmakers Associations Jubilee exhibition Design Museum Denmark and Trapholt Art museum and Form Design Center, Malmoe Sweden, 2002 / Masterpieces, 100 years of Danish Cabinetmaking, Kronborg Castle, 2000 / Touch Wood, Danish Cabinetmakers Association, Designmuseum Denmark, 1997.

PRIZES / AWARDS

Danish Arts and Crafts, Silver medal, 2004 / Gurli and Paul Madsens Mindelegat, 2000 / Danish Arts and Crafts, Bronze medal, 1999 / Cabinetmakers Silver medal, 1997.

GRANTS

Statens Kunstfond, 2014, 2010 / Grosserer L.F. Foghts Fond, 2009, 2008, 2004 / Augustinus Fonden, 2007 / Danmarks Nationalbanks Jubilæums Fond af 1968, 2007, 2006, 2004 / Konsul George Jork og Hustru Emma Jorcks Fond, 2004 / Fabrikant Svend Aage Rasmussen og Hustrus Mindelegat, 2000 / Gurli og Paul Madsens Fond, 2000 / Georg og Emilie Petersens Legatfond, 2001 / Det Reiersenske Fond, 2001 / Margot og Thorvald Dreyers Fond, 2000 / Fabriksejer, Ingeniør Valdemar Selmer Trane og Hustru Elisa Tranes Fond, 2000 / Glashandler Johan Franz Ronges Fond, 2000 / Premieselskabet, 2000.

EDUCATION

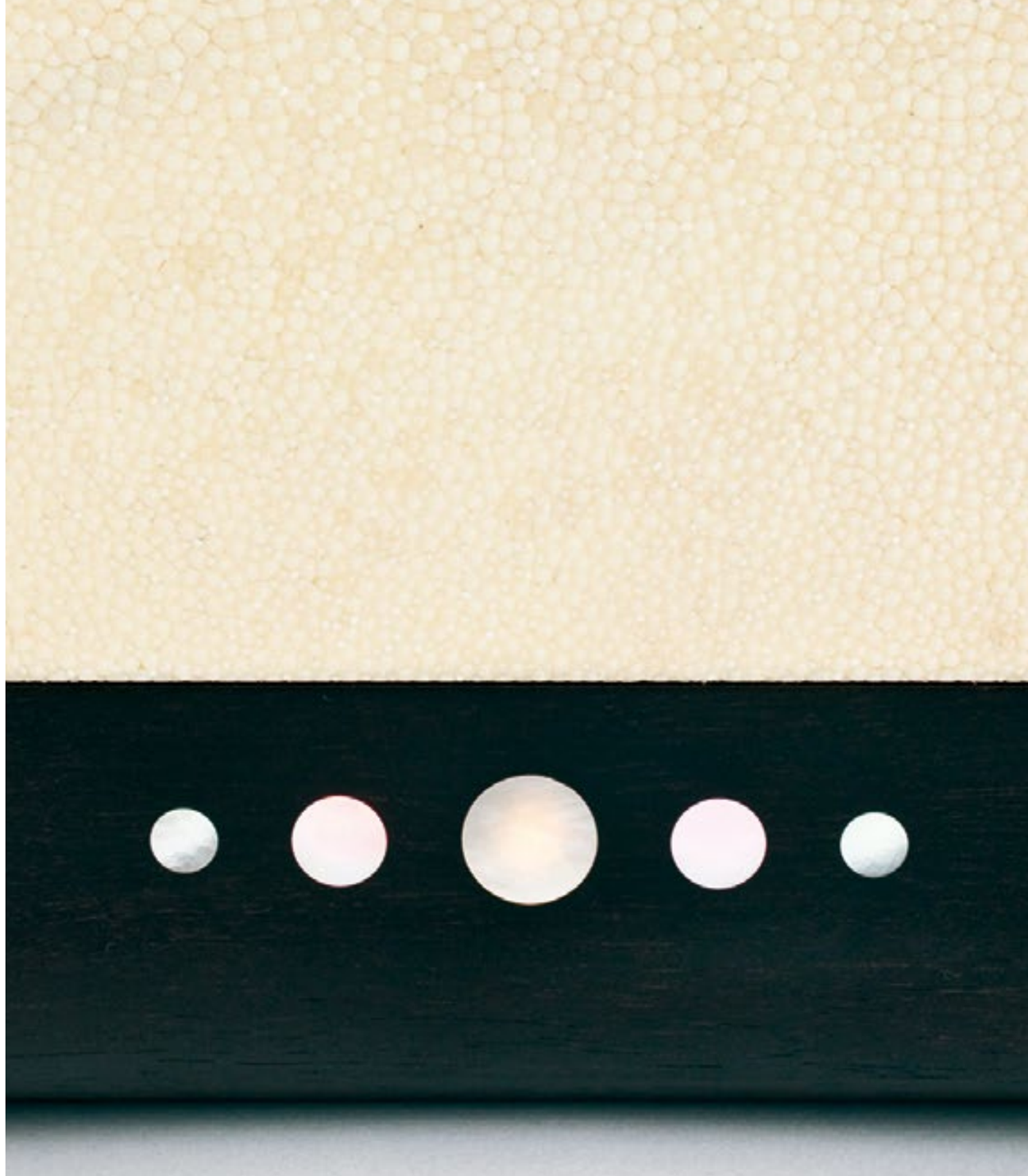
Trained Cabinetmaker with Silver medal, 1991-1996 / Danish Royal Academy of Art and Design, Furniture Department 1997-2003.

OTHER

Member of the jury for The Danish Cabinetmakers Guild's Wood Prize, 2015 / Member of The Cabinetmakers Autumn Exhibition, 2012 / Represented by Galerie Maria Wettergren since 2010 / Faculty at Danish Institute for Study Abroard's Furniture Program since 2009 / Faculty at Danish Royal Academy of Art and Design, Teaching design process, 2005-2014 / Established own Cabinetmakers workshop since 2003 / Employed by Nanna Ditzel 2003-2005 / 3 months trip, studying and working in Japan with traditional craftsmen in 2001 and 2003 / Trainee at Hans Sandgren Jakobsen Design, 2001 / Member of the Danish Cabinetmakers Assiciation, 1996

My Precious Data, 2010
Ebony, Stingray skin of the Dasyatis Stephen sort, white mother-of-pearl,
NAS server with hard disks and fans
30 x 23 x h25 cm

Detail, page 31



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