WORKS + WORDS 2019

TITLE: Hand and Eye – Reflections on methodology and phenomenological effects in the design process of stainless steel cutlery.

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The hands want to see, the eyes want to caress

Johann Wolfgang von Goethe

The project explores the design process of eating utensils and investigates how small shifts and nuances in the materiality and morphology can impact and eventually determine the functionality and aesthetics of the final work.

The project may be seen as a contemporary contribution to the pending debate on the notion of 'design', where, not least at the KADK, the classic understanding of design as a tangible product has given way to the so-called 'expanded design concept'.

This shift in paradigm from professional skills based on the phenomenological sensitivity of the visible world to the intangible world of marketing and management is seen as unfortunate and counterproductive.

It is one of the aims of this project – again – to focus on the sensibility of the eye and the intelligence of the hand as a fervent awareness that is an important tool when we shape

our objects. And to investigate the language of morphology in an object informed by the hand, mouth and eye.

Some things are so good that we think of them as having found their conclusive form.

Things that just feel right and therefore look good to us.

This is often because they, thanks to their obvious functionality, mesh seamlessly into our surroundings as something immediately understandable and explained. Something that gives us an emotional experience of contexts and connections we can tap into.

A spoon, a knob or a pair of handlebars/A handle, a knob or a spoon?

Some of the earliest objects created by man are the bowl and the knife. Just like the wheel, these basic tools have played an important part in our evolution, from ancient times to the present day. During all that time, their appearance has undergone few adjustments, their overall shape remaining more or less unchanged. Morphologically, there is very little difference between the bowls we use and the ones our ancestors used 12,000 years ago. The same applies to the knife. From the chipped flints of the Stone Age[1] to the knives of today, its changes have been few and limited, and they all spring from the ground-breaking discovery of how to process materials such as stone, metal, wood and plastic and fashion tools out of them. Stone axes – the cutting utensils of ancient times – were monolithic in shape with handle and blade carved out of the same material, and the Iron Age[2] gave us the ability to heat iron until white-hot and formable, which laid down the rules for all subsequent knives.

The spoon was originally conceived as a ladle made from shells or bones and then reshaped and downscaled to a size suited for carrying food in more measured quantities from table to mouth. Archaeological findings show that our earliest ancestors used shells joined with small sticks or wood chips, which they carved or bent into spoon-like shapes.

Ancient spoons made from decorated ivory, wood or slate and probably intended for ritual purposes have been found in Egypt. Archaeological finds from other places show simple monolithic spoons made from baked clay or horns of animals, and although Greek spoons were mostly made from bronze or silver with elaborate, pointed handles, it is remarkable how certain common features seem to define the spoon's evolutionary journey across millennia and cultures.

The history of the fork is far shorter. It first became popular with the Italian renaissance in the early 16th century and then gradually spread to the rest of Europe. Its original form was a long spear, often with two prongs, but as an eating utensil made for the table the fork grew smaller, consisting of an oblong handle attached to a branching head with three to five small, slightly curving prongs used for pinning down bits of food while cutting them or for carrying them to the mouth.

In Denmark, the making of cutlery – often elaborate, ornamental silverware with handles in bone – remained a matter for the artisan well into the 21st century, but the industrialized development of stainless steel after World War I made cutlery into a mass-produced everyday commodity. In the mid-1920s, the Danish silverware manufacturers Cohr's Sølvvarefabriker developed an extremely simple, cheap and hygienic stainless steel cutlery set for hospital use, which was sold to ordinary consumers under the name 'Dansk Standard Bestik' (Danish all-round cutlery) (see Thomas Dickson: *Dansk Design*[3]). This design has been used as a model by prominent Danish designers ever since. In 1938, the silversmith Kay

Bojesen (1886–1958) conceived a new cutlery design in silver that – just like its updated cousin in stainless steel – is based on Dansk Standard's unostentatious, hand- and mouth-friendly design with its characteristic lack of joints and unnecessary detailing. Bojesen's design is much crisper, its lines elegant and its proportions convincing, but the basic properties are the same as 'Dansk Standard'.

When our objects are unaffected by changing technologies and preferences, when they are able to adapt to changes without losing their defining qualities, then we describe them as robust or resilient.[4]

The word 'robust' comes from the Latin nouns *robus* and *robur*, which mean 'strength' with connotations of 'hardiness', 'coarseness' and 'solidity'. However, according to Nassim Nicholas Taleb, the 'antifragile' has qualities that reach beyond the resilient or robust: 'The resilient resists shocks and stays the same; the antifragile gets better and better.'[5]

Dansk Standard's cutlery thus has certain resilient properties – properties that in Kay Bojesen's rendition become 'antifragile' as he subjects the original design to an interpretation and refining process that optimizes its functional and aesthetic performance.

This design strategy and Taleb's associated notion of 'antifragility' have served as inspirations for the cutlery I developed for Hammerhus Visitor Centre in 2016, and which is manufactured and distributed by kitchenware suppliers Bent Brandt A/S. I have been using Kay Bojesen's cutlery all my life. It fits nicely into the hand, is user-friendly and seems well-proportioned in every particular; especially the fork's and to some extent the spoon's simple and unostentatious nature appeal to me. Bojesen's design has a number of qualities that, to me, seemed to be essential to good cutlery. I therefore measured its pieces and studied their morphology,

their weight, the curvatures and the different thicknesses. All of which were properties a new design would have to acknowledge and challenge.

I also identified some aesthetic and functional features that I would like to challenge by making certain adjustments in order to give the new design its own distinctive look and feel.

The essay 'Stoflige Virkninger'[6] (Textural qualities) by Carl Petersen offers a sensitive insight into how differently we perceive surfaces with glossy or dull surfaces. Petersen sees it as a problem that glossy surfaces mirror their surroundings, thereby creating interference between the reflection and the object's own material-aesthetic qualities, the so-called materiality, which is then perceived as ambiguous and poor.[7]

I found Bojesen's cutlery to be too glossy – both in terms of how it mirrors its surroundings and with regard to how wear and tear will show as unbecoming scratches on the glossy surfaces. I therefore made the surface on my new cutlery as dull as possible.

Bojesen's knife has an interesting rounded corner where the handle meets the blade, which is shaped after the finger. This is a nice detail that seems to celebrate the meeting between the hand and the knife, but the handle's lower edge is convex. I considered whether my own design could learn from Bojesen's by introducing the curve that acknowledges the finger's meeting with the handle as a convex shape along the handle. The blade of Bojesen's knife was quite short and lacked the slight flexibility I knew and loved from traditional bone-handled Sheffield Steel dinner knives. I measured the blade on a Sheffield knife and borrowed its surface, its curve and its thicknesses to achieve the desired effects, adding a serrated edge for good measure.

Bojesen’s fork was near perfect, but the slightly curved prongs seemed too long to be ideal for meals consisting of pasta or salads. Changes in diet from 1950 to the present have shifted our culinary focus from meat, potatoes and gravy to more composite and varied dishes. Consequently, I shortened the prongs and expanded the surface below the handle, to which the prongs are attached.

The handle of the spoon was given a convex cross section, just like the knife and the fork, while the shape and curve of its head were scrutinized in order to achieve a more circular contour. The head of Bojesen’s spoon, especially the tablespoon but also to some extent the teaspoon, had apparently been designed specifically for eating soup, where the mouth meets the side of the spoon. I, on the other hand, wanted the heads of my tablespoon and teaspoon to meet the mouth from a more frontal angle, and the task therefore consisted in finding the right balance between the length and width and an appropriate spatial capacity.

When Bojesen designed his cutlery, he did it in a workshop in dialogue with the craftman’s so-called silent knowledge of materials and manufacturing techniques. This dialogue has been more or less cut off by globalization’s outsourcing of production activities. My four cutlery pieces were translated into 3D animations with the help of sophisticated computer software and afterwards 3D-printed in plastic. Each individual piece was then tested for functionality, and aspects that did not appear from the animations were tested by touch. Various modifications and adjustments lead to the qualification of a number of decisions, so that these by the start of production had been confirmed not only by sight but also by touch of the hand.

According to Juhani Pallasmaa, touch is the sense that correlates our perception of the world with our perception of ourselves. ‘All senses, including vision, are extensions of

the tactile sense', he writes, 'the senses are specialisations of skin tissue, and all sensory experiences are modes of touching and thus related to tactility. Our contact with the world takes place at the boundary line of the self through specialised parts of our enveloping membrane.'[8]

The objects' *regular* levels – i.e. their measurable and clearly determinable properties, such as dimensions, functionality and weight – were established at an early stage. A morphological preference for their *similar* levels was then formulated – i.e. features that make them easily recognizable as part of a movement, style or school within industrial design production – and finally, a point was made of endowing the objects with characteristics that single them out as distinctive and memorable.

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[1] The Danish Stone Age was a prehistoric era that lasted from c. 12.800 BC to 1,800 BC.
[2] The Iron Age lasted from c. 500 BC to AD 850.
[3] T. Dickson, *Dansk Design*. Gyldendal, 2017 (English edition: *Dansk Design*. Murdoch Books, 2008).
[4] For further reading on the notion of robustness in architecture, see: Robust, reflections on resilient architecture, A. Algreen-Petersen, C. Harlang & S. Bak-Andersen (eds.). GEKKO Publishing, 2017, p. 112.
[5] N. N. Taleb, *Antifragile – Things That Gain from Disorder*. Random House, 2014.
[6] C. Petersen, 'Stoflige Virkninger', *Architekten*, 1919.
[7] For further reading on texture and form, see C. Harlang, *Espacios Nordicos Nordic Spaces, Anima Aquilonia*, Elisava Edicions, 2001, p. 34-36.
[8] J. Pallasmaa, *The Eyes of the Skin*. Wiley & Sons, 2005, p. 10.