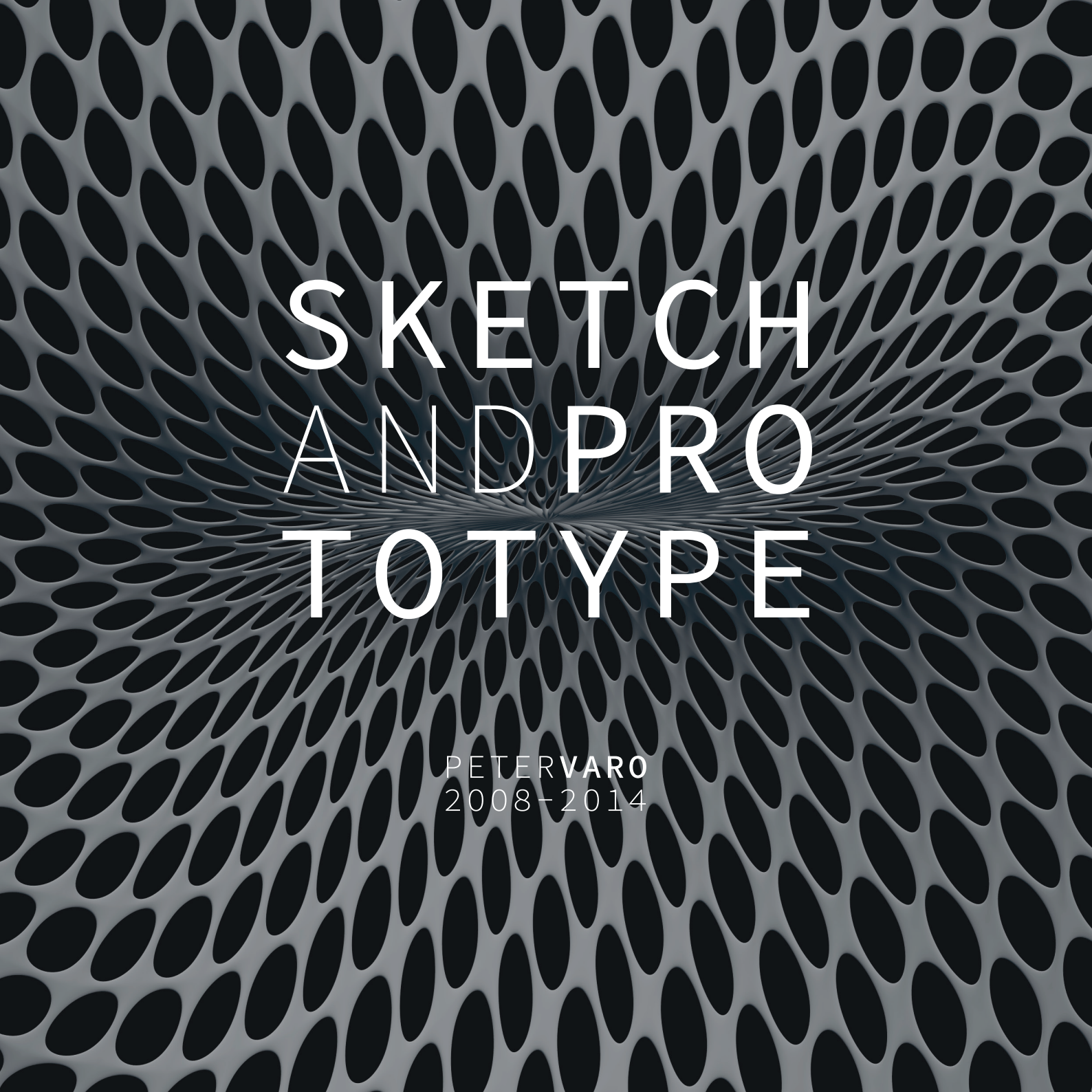

SKETCH
AND PRO
TOTYPE
PETERVARO
2008–2014

Sketching on paper, drafting with 3D modellers, prototyping in hardware and manufacturing by NC machines are just a few of the many ways of breathing life into ideas! In the last couple of years I have learnt some of the most important disciplines of design (and probably life in general) through the process of creation.

Focus on one specific task of one specific project while keeping an eye on the big picture. Think about it; dream about it; breath it for 24/7. This kind of focused attitude has real power inside: it ensures that the ideas and decisions made are detailed, valid, and meaningful enough to continuously bring closer to the end goal.

Find the smallest working prototype and build surely upon it step by step. Proving an initial concept and continuously improving it offers certainty and avenues of exploration for other ideas and concepts while bringing the current one to fruition.

A product can never be "good enough" but acknowledge that milestones and deadlines need to be met. Always seek the biggest gain for the smallest amount of expended resources — design at its best!

The greatest fun is almost always at the boundary between science and art. After all, this kind of duality is inseparable as it is the nature of everything: software and hardware; design and development; rationality and intuition. This multidisciplinary approach is the only way to bring a first class user experience to customers.

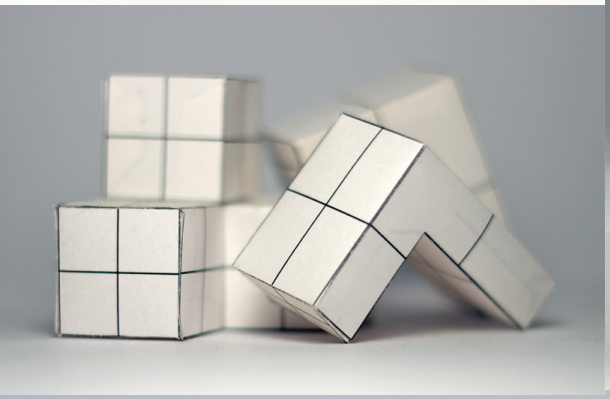
From sketching an idea on paper, to quickly shape a draft in 3D; from crafting a dirty prototype, to precisely manufacturing the final product, throughout designing its lovely packaging, finally telling and selling the story of what really just happened behind the scenes.

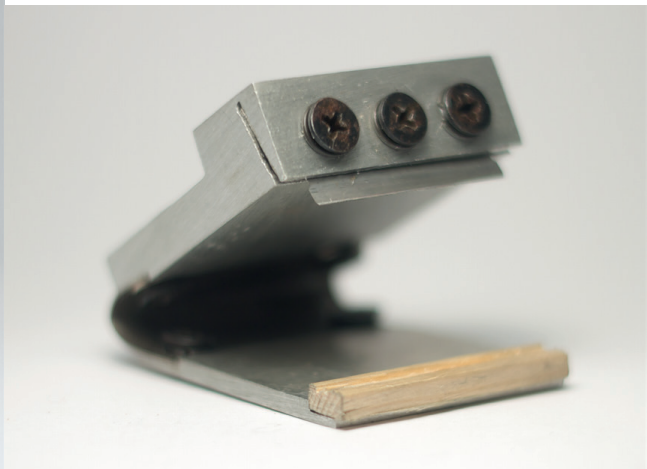












I always loved making things. Although I created my first "real" product design when I was 13 (it was a computer mockup called 'XEED', made of acrylic sheets, aluminium, copper, LEDs, random wires and lots of glue), at the beginning I used mostly paper and cardboard only. The next step was wood and after I built my own workshop I learnt how to deal with metal, glass, clay, plastics and composites.

My love of virtual sculpting started with an amazing movie - the original 'Toy Story'. It fascinated me so much that I had to try Alias Maya. Since I was only a child and there wasn't enough tutorials at the time I failed to create anything meaningful, but I kept trying time after time, until I was 18 when I was able to learn subdivision 3D modelling and almost at the same time NURBS modelling via CAD systems.

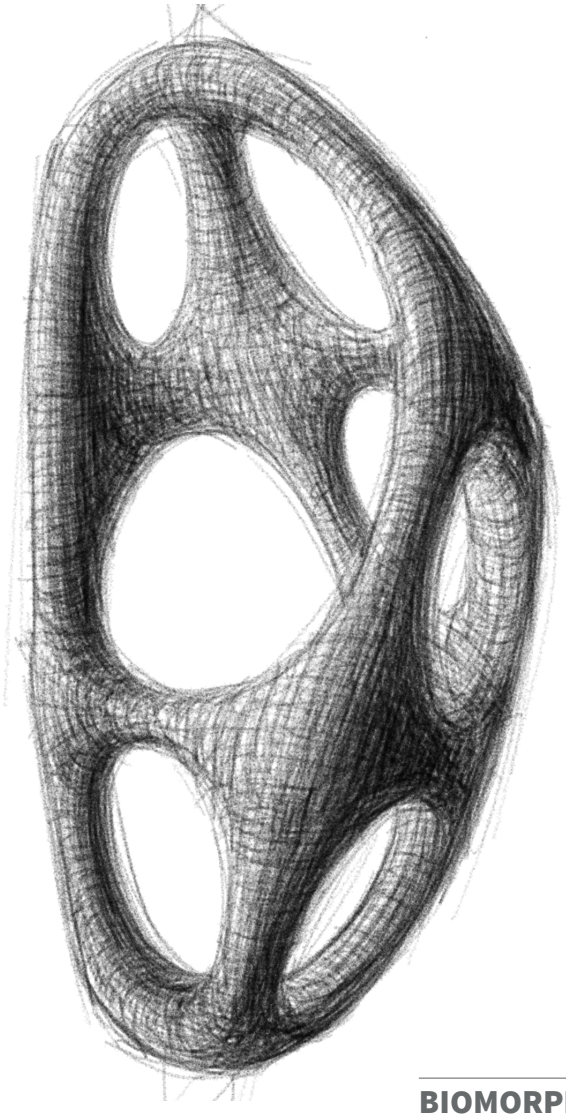
Recently I learned coding starting with Python and then C. Moving onto the basics of electronics and robotics I experimented with Arduino boards, but mostly with the Raspberry Pi micro computer and all the cheap electric components that I could buy on eBay. All these taught me a lot about how things work from a microchip through to a full-scale computer and the principles of any modern electronic device we are surrounded by these days.

My other beloved activity is teaching. Right after I learn, understand and test anything new, I immediately want to share that knowledge with others. I enjoy that others can understand something I showed them, how it helps extend their knowledge and empowers them to create extremely beautiful or useful things they couldn't before. I like sharing ideas, design theories, working patterns, experiences, philosophies and even good music compositions that helped me remain focused.

This portfolio contains a selected collection of my sketches, prototypes and final products from almost all the fields I like to experiment with.

Digital sketch

Low-poly m



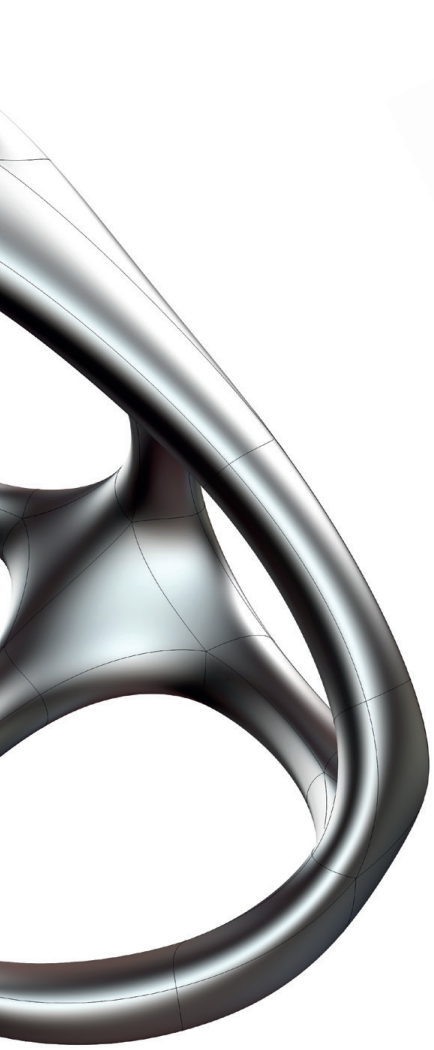
BIOMORPH29

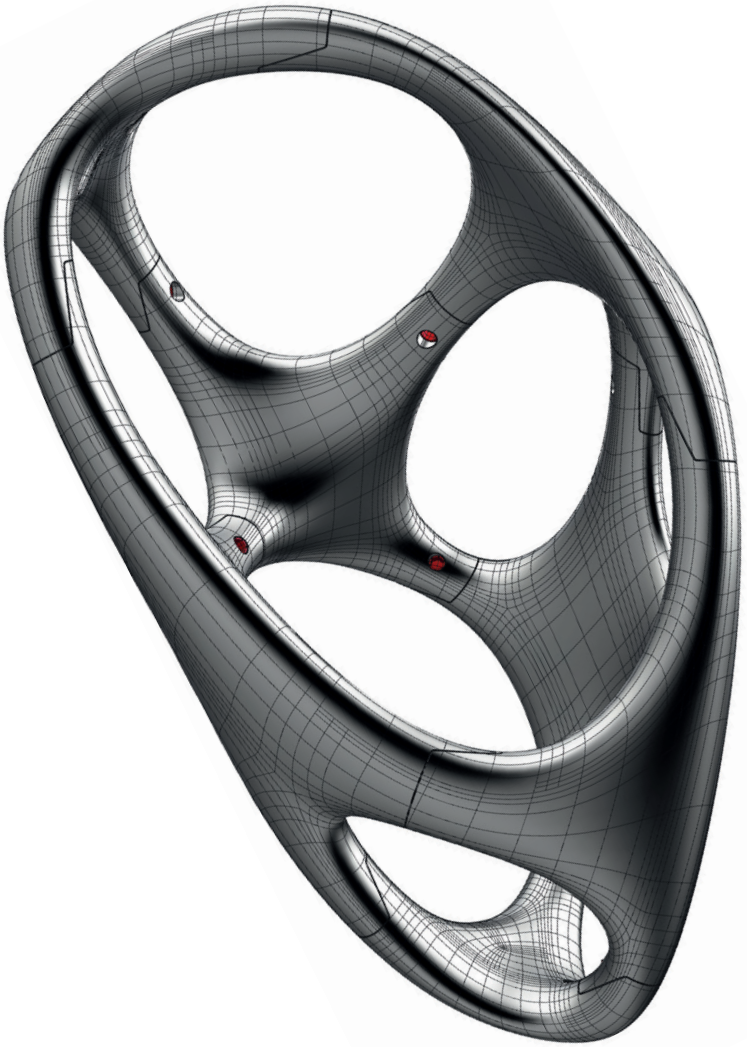
The design process of creating an assamblable organic sculpture prepared for CNC milling.

2013

nesh model

High quality NURBS surface





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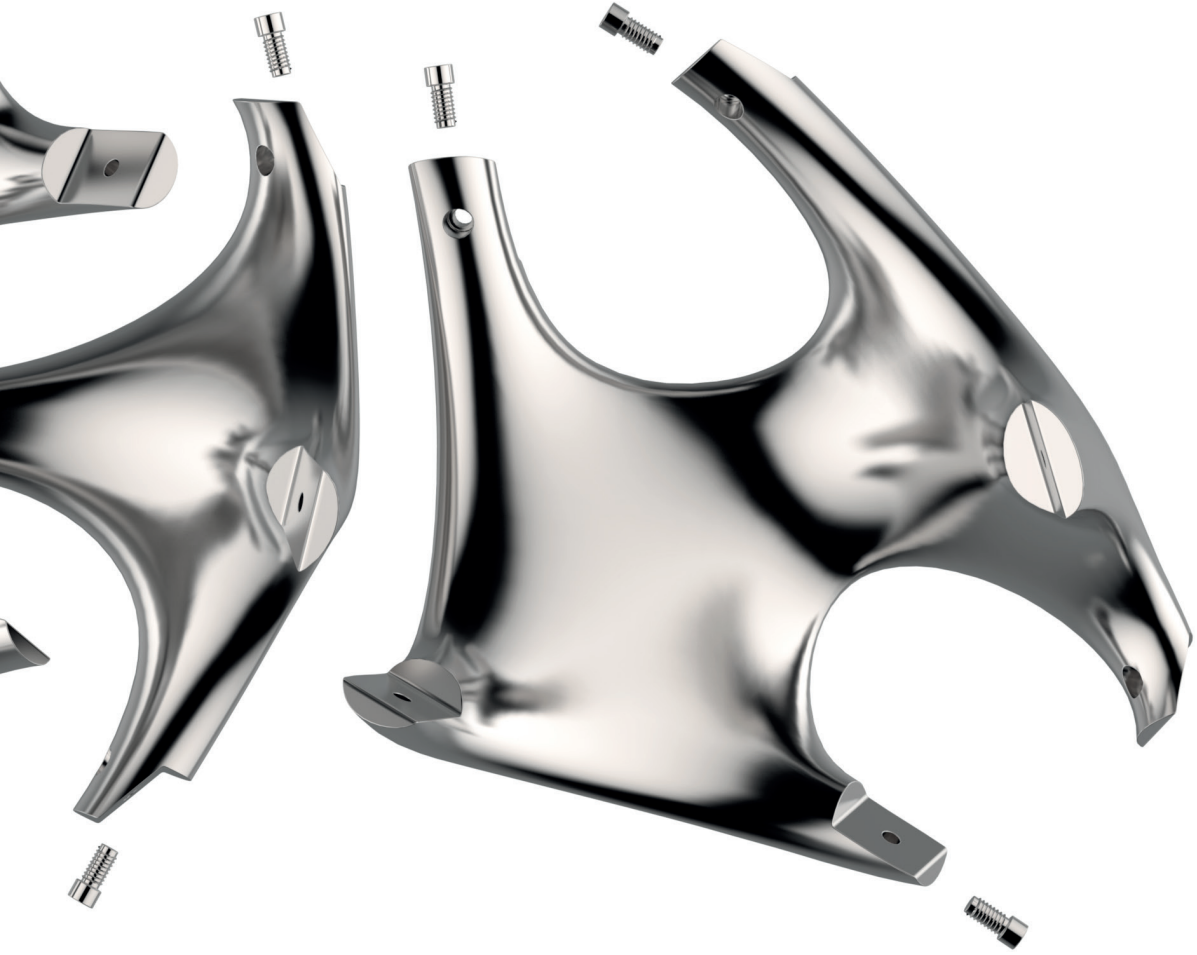
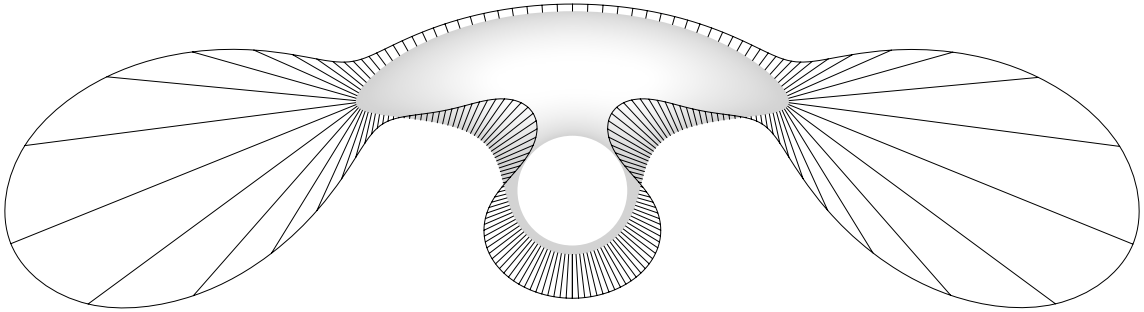
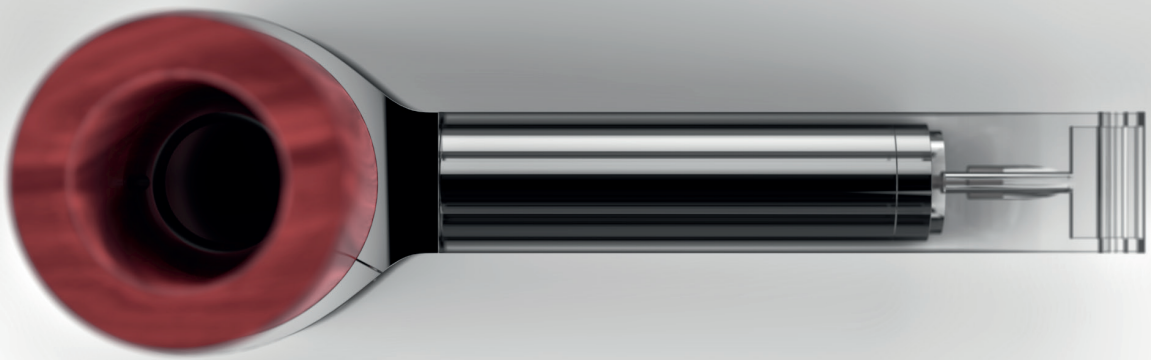


bled sculpture

MAGIC MUSHROOM
Dioada ring setting with lens.
Turned and milled aluminium
and laminated acrylic sheets.
2011

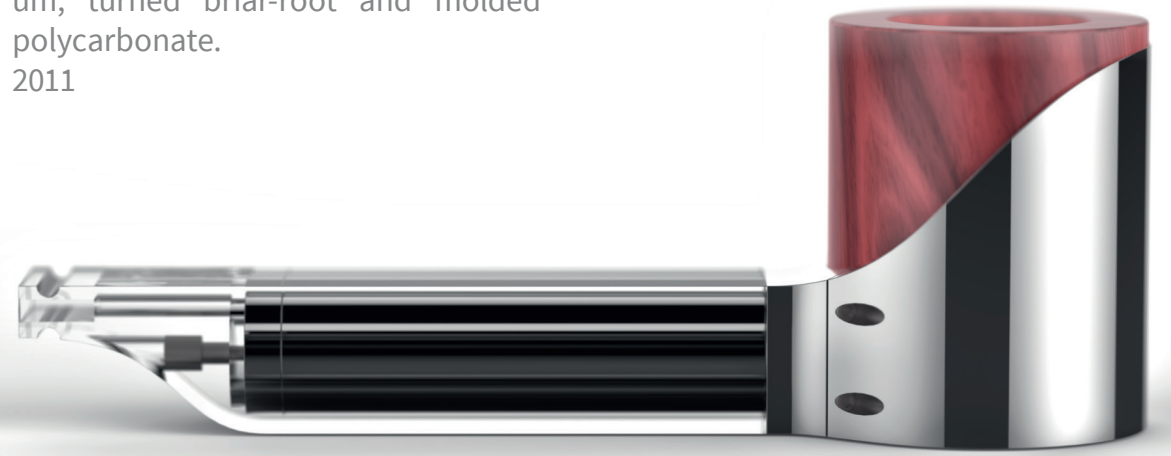


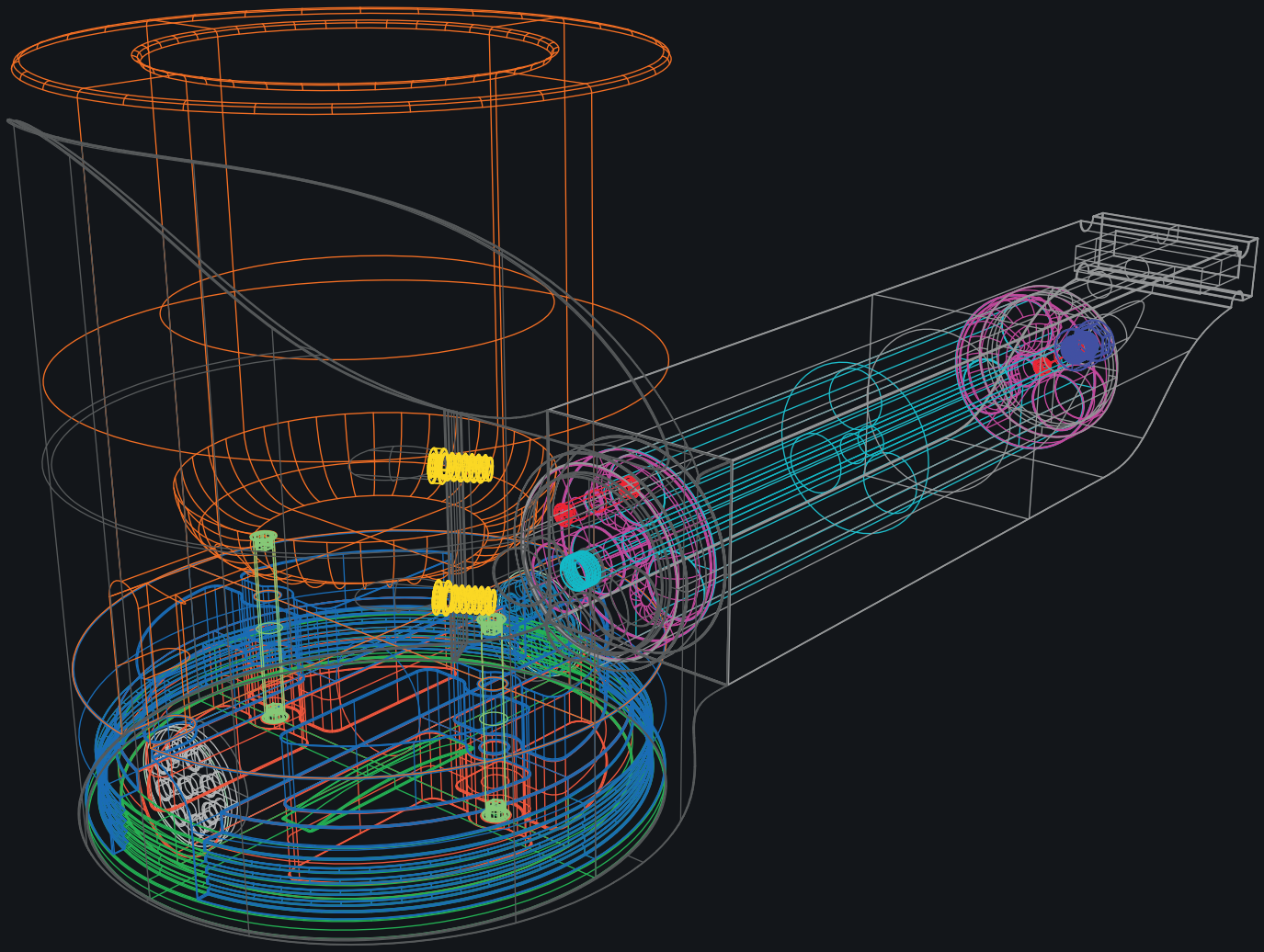
Curvature-graph analysis



ALSUS

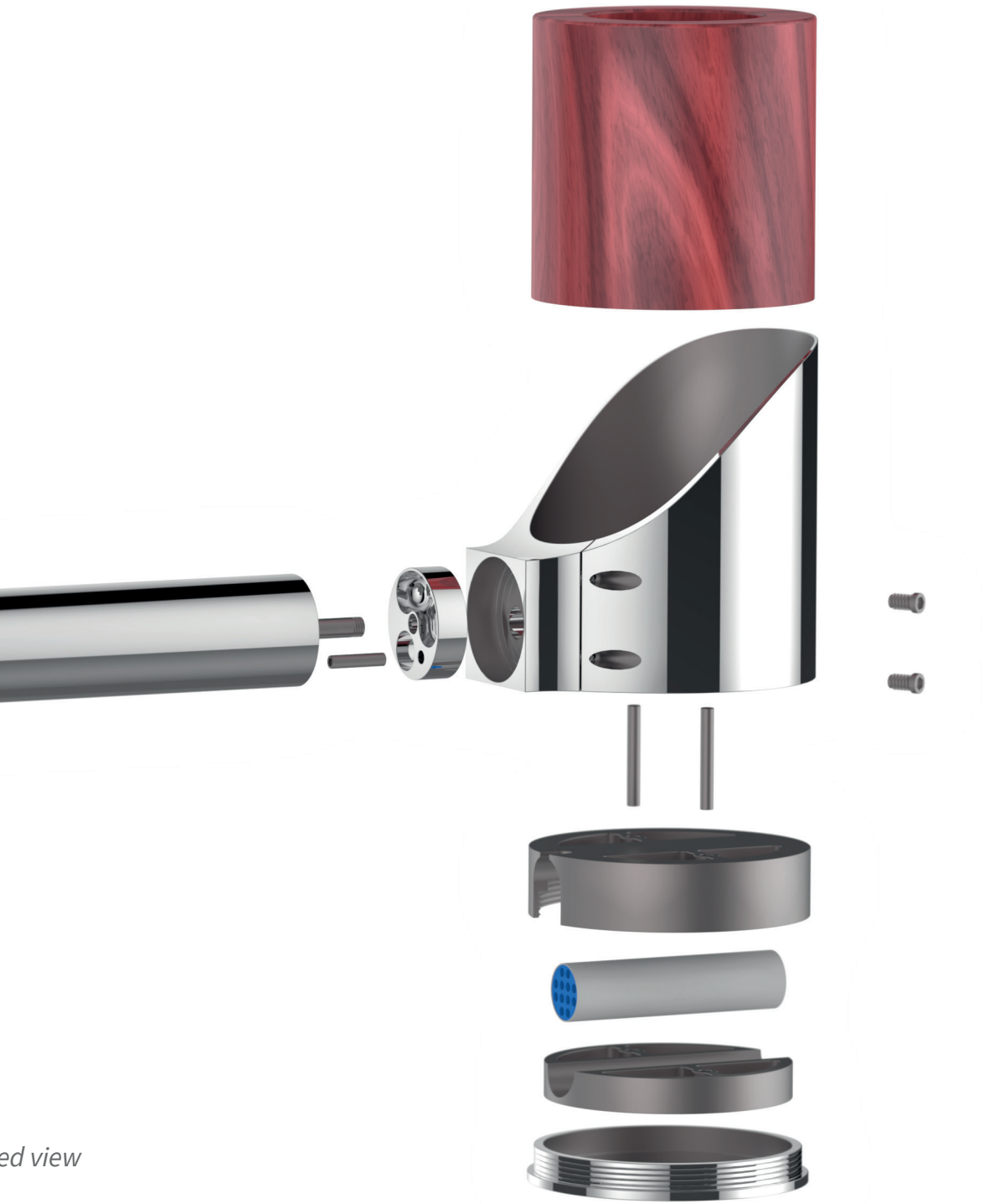
Tobacco pipe with a ‘folded’ metal stem and replaceable parts.
Wirecut EDM magnesium and aluminium, turned briar-root and molded polycarbonate.
2011



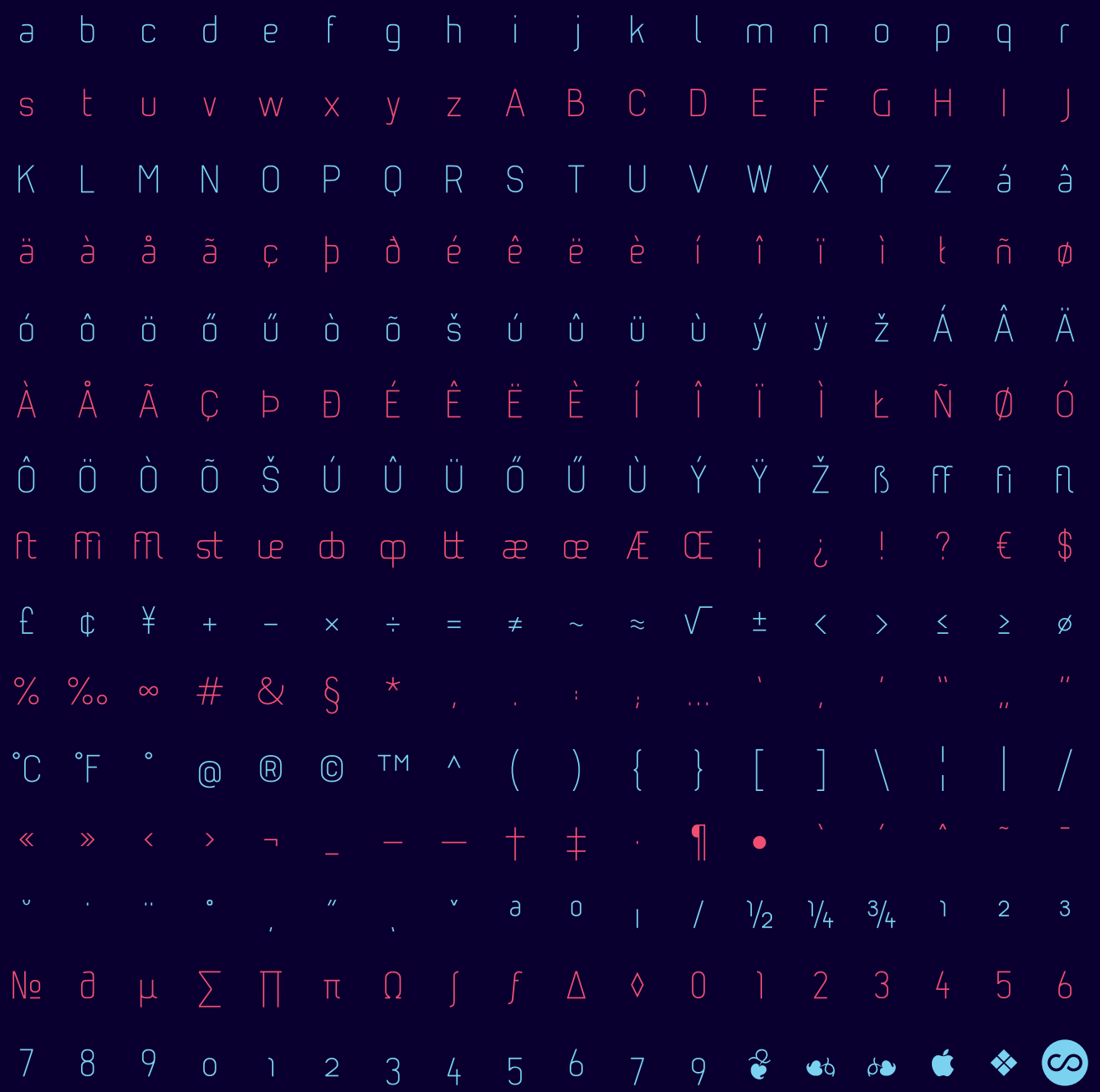


Wireframe view of all parts assembled in CAD

Explod



ed view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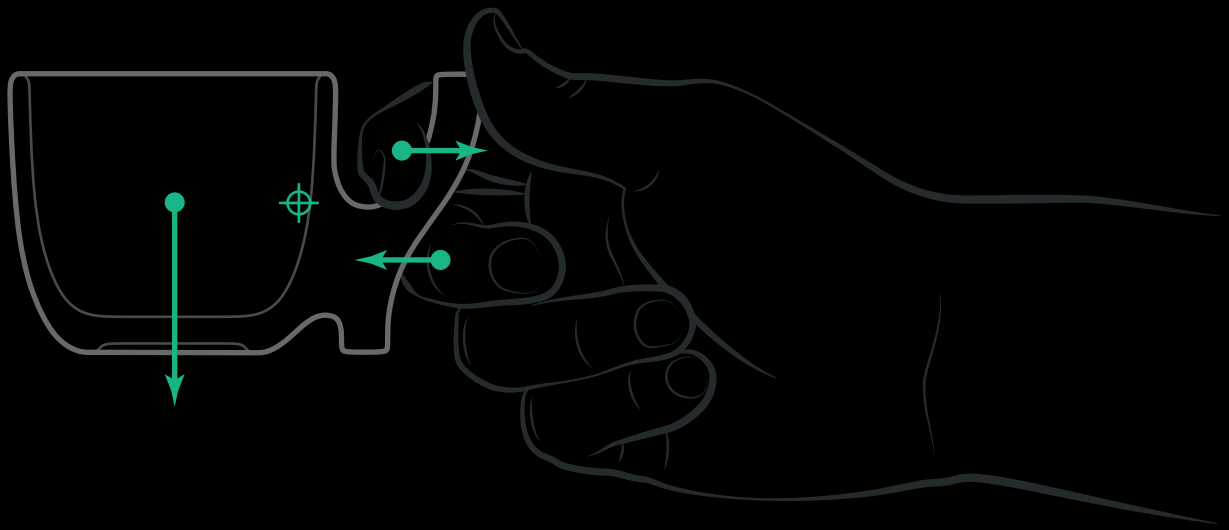
BF CCN REGULAR

Pixel-perfect vector based typeface influenced by old technical glyphs and designed specially for the interface of a CAD software.

2011

GLASS BEAN
Form and material study.
Sanded clear glass.
2011



ANTLER
Study of mug handlers based on force analysis for Douwe Egberts.
Tempered clear glass.
2010

COCOON
13 × 13 raster mouse cursors and pixel-perfect vector glyph-icons for software interface.
2011

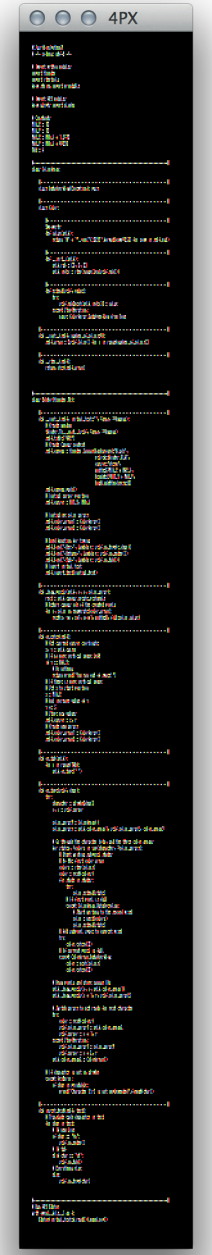
LOWCA

Based on traditional hungarian peasant furnitures this seat is designed for Fütyülős.

Steam bent plywood, brushed aluminium and acrylic sheets.

2008

4PX
The world's smallest legible typeface on LCD displays, uses sub pixels to draw its 88 glyphs on screen.
Multi-platform editor, Python based Tcl/Tk GUI and logic.
2011



Editor displaying its own code

CYCLOPS
Ring's shells held together with a single longitudinal screw.
Turned aluminium, bronze and titanium.
2011

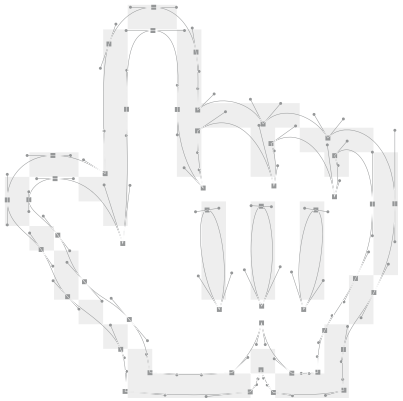
MISS_ING
Ring of harmony of geomet
disharmony and unbalance.
Turned bronze and iroko exo
hardwood.
2010

tric

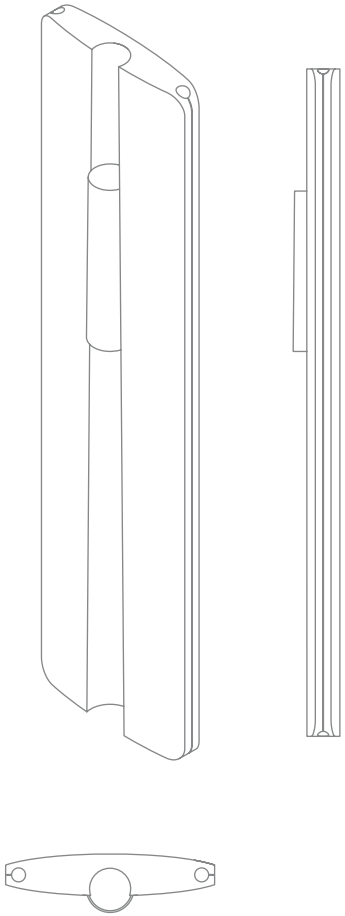
tic

CROSSOVER
Ring between the boundary of 2
and 3 dimensions.
Turned aliminium prototype and
3D printed stainless steel.
2008

HAND OF MICKEY
Study for HG.HU about the redesign of the new Mac OS X cursor based on the original one.
2012



Original, current and redesigned



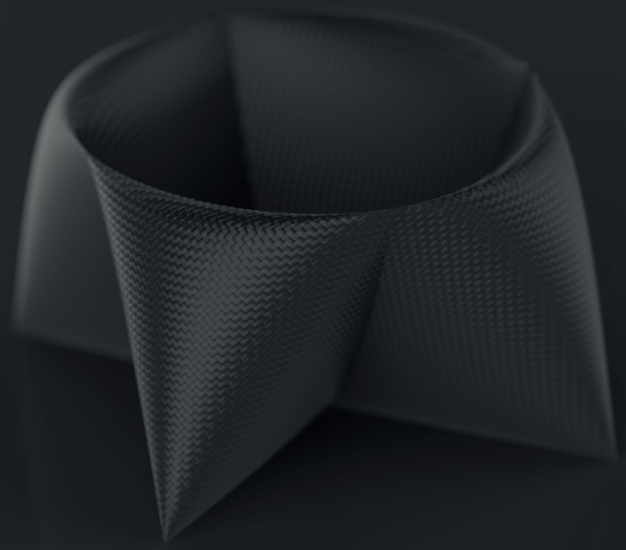
MT3

Cone setting in pendant using the Morse-taper principle.
Wirecut EDM aluminium and turned and tempered silver steel.
2011

SURFACE STUDIES

Mathematical form finding using parametric equations.

2009 - 2013



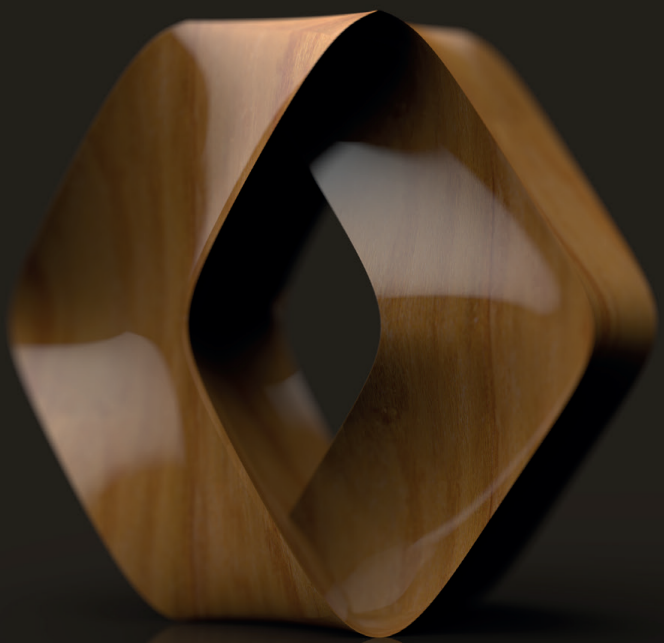
Dog Bowl

$$\begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} \sin(u+v)\sin(u-v) \\ \cos(u+v)\cos(u-v) \\ 4\sin(u+v)^2\cos(u+v)^2 \end{bmatrix}, u = 0...\pi, v = 0...\pi$$

Flame Formed Foil

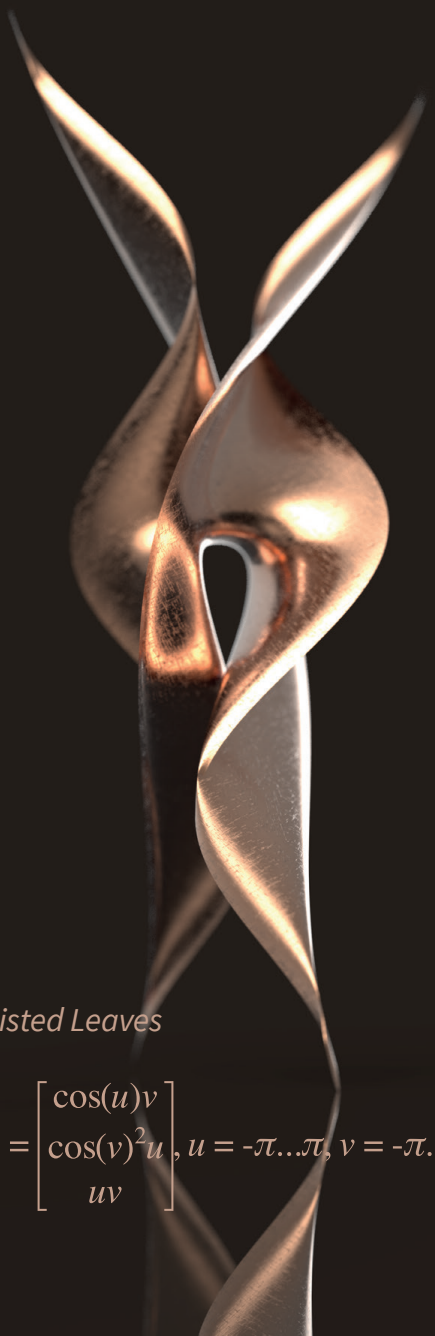
$$\begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} u^2\sin(v)\cos(v) \\ v^2\sin(u)\cos(u) \\ 2uv \end{bmatrix}; \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} u^2s \\ v^2s \\ \end{bmatrix}$$

$$\begin{bmatrix} \text{in}(-v)\cos(v) \\ \text{in}(-u)\cos(u) \\ 2\pi^2 - 2uv \end{bmatrix}, u = 0 \ldots \pi, v = 0 \ldots \pi$$



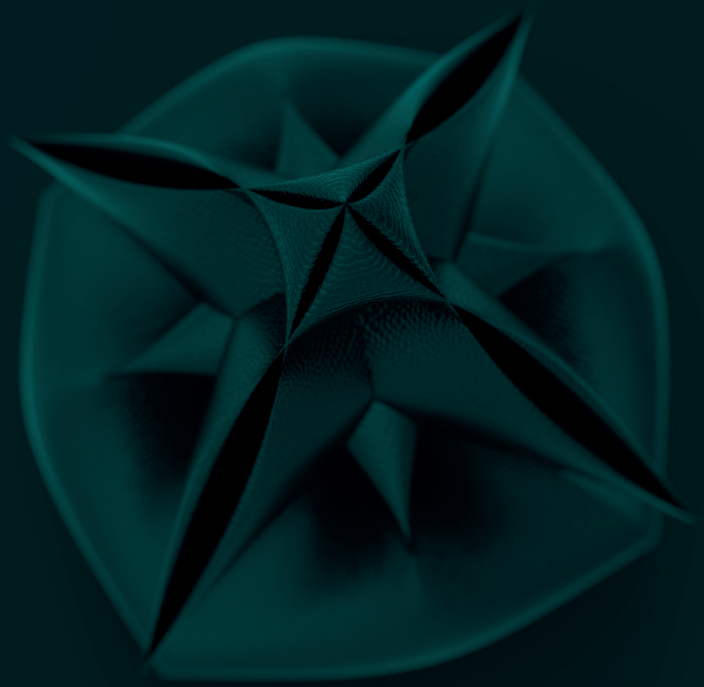
Hexwave

$$\begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} \cos(v)^3 + \sin(u)^3 \\ \sin(v)^3 + \sin(u) \\ \cos(u)^3 + \cos(u) \end{bmatrix}, u = 0 \ldots 2\pi, v = 0 \ldots 2\pi$$



Twisted Leaves

$$\begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} \cos(u)v \\ \cos(v)^2 u \\ uv \end{bmatrix}, u = -\pi \ldots \pi, v = -\pi \ldots \pi$$



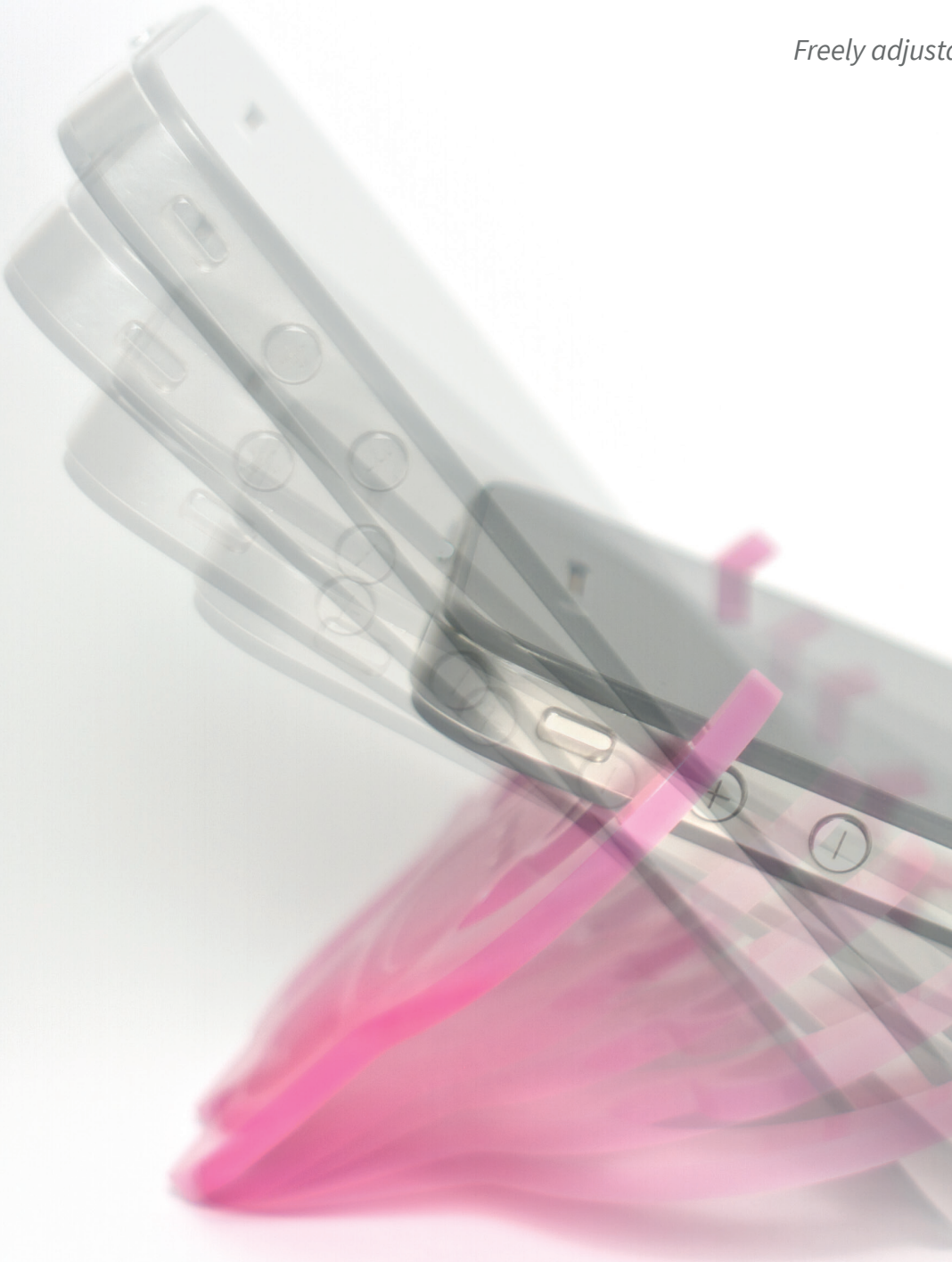
Paper Rose

$$\begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} v^2\sin(u) \\ u^2\sin(v) \\ 8\pi^2 - u^2 - v^2 \end{bmatrix}, u = -2\pi...2\pi, v = -2\pi...2\pi$$

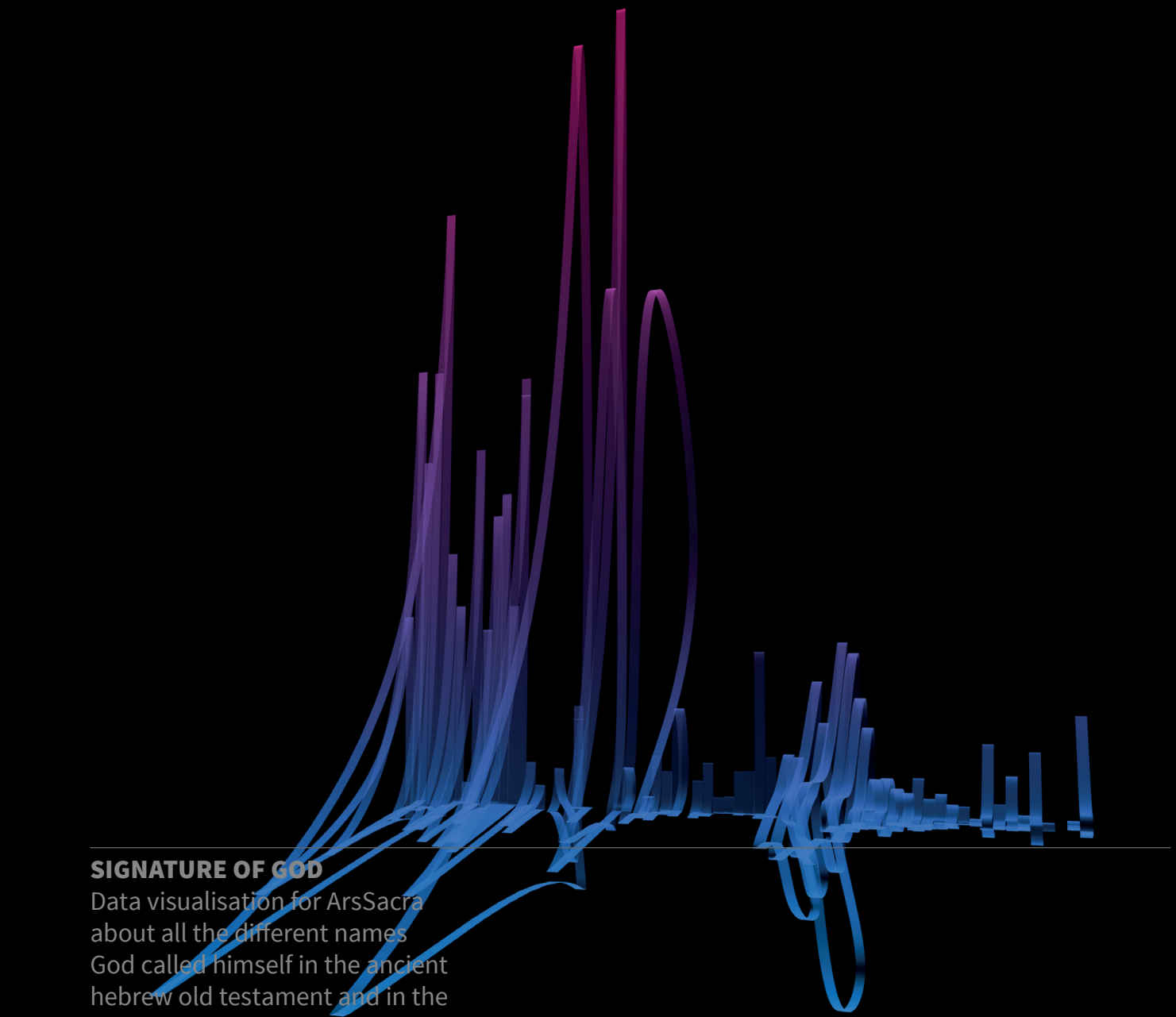
PSEO MONKEY
The Phone Stand Earbud Organiser is a multifunctional product designed specially for iPhone 4. Laser cut and engraved colored acrylic sheet.
2011

Laser cut paper packaging

Freely adjusta



able tilt angle

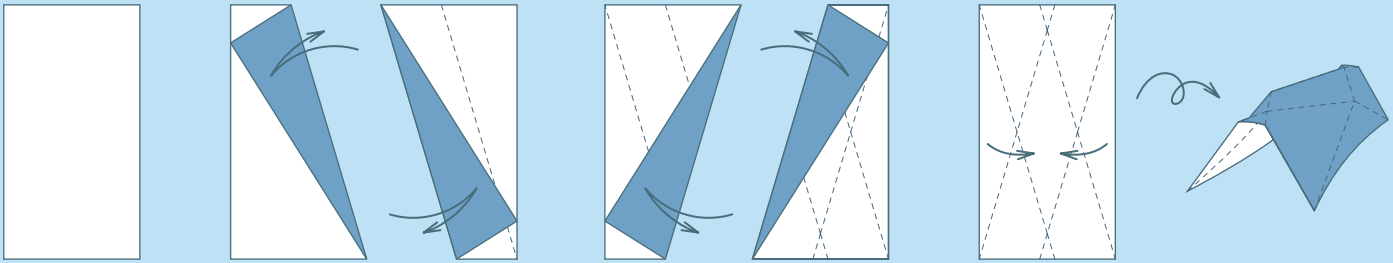


SIGNATURE OF GOD
Data visualisation for ArsSacra about all the different names God called himself in the ancient hebrew old testament and in the ancient greek new testament.
2009

DOUBLE G
Ligature based logotype for
GreaterGoods.
2012

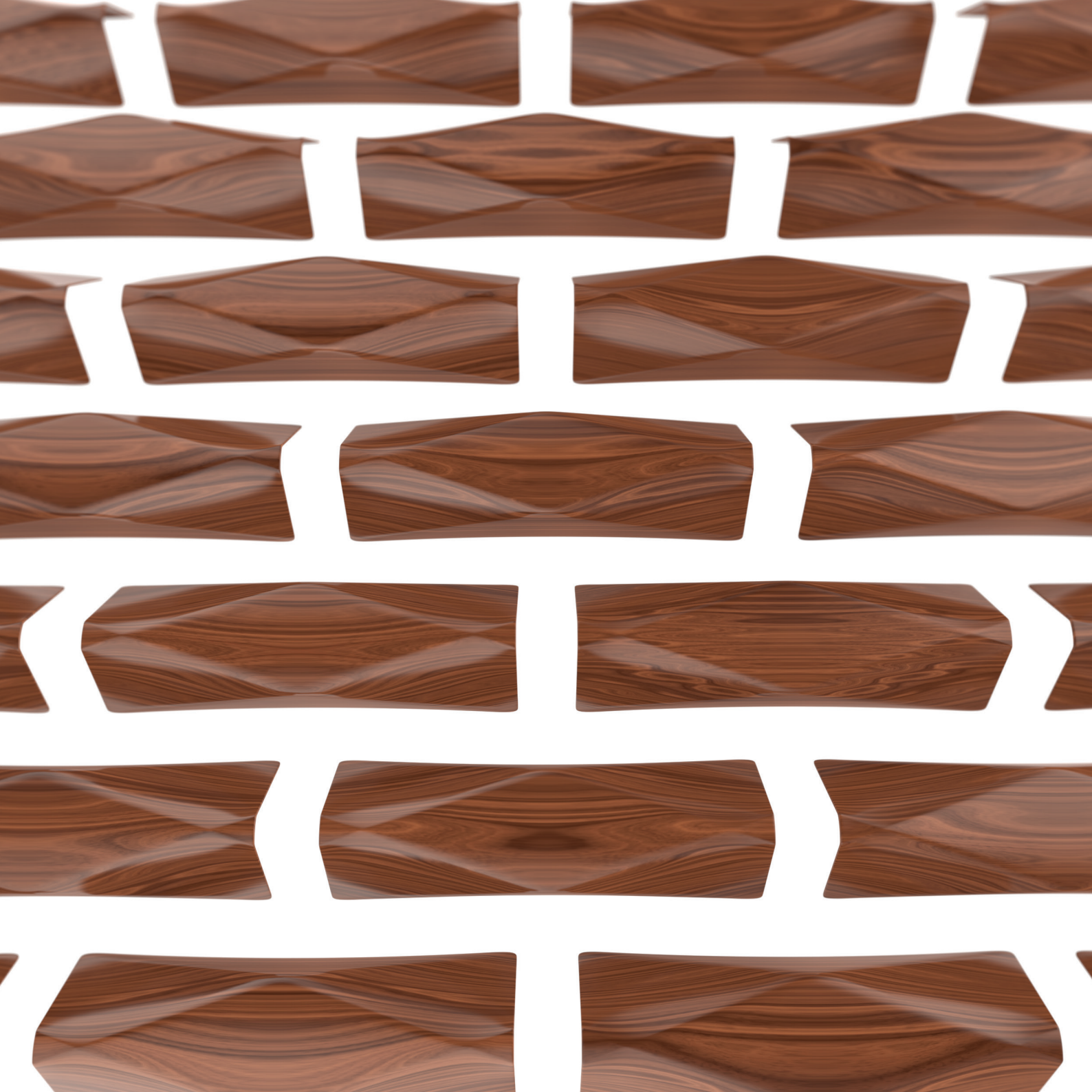
OLDOWAN
Butter knife ‘single-surface’
design created for client.
Stainless steel.
2012

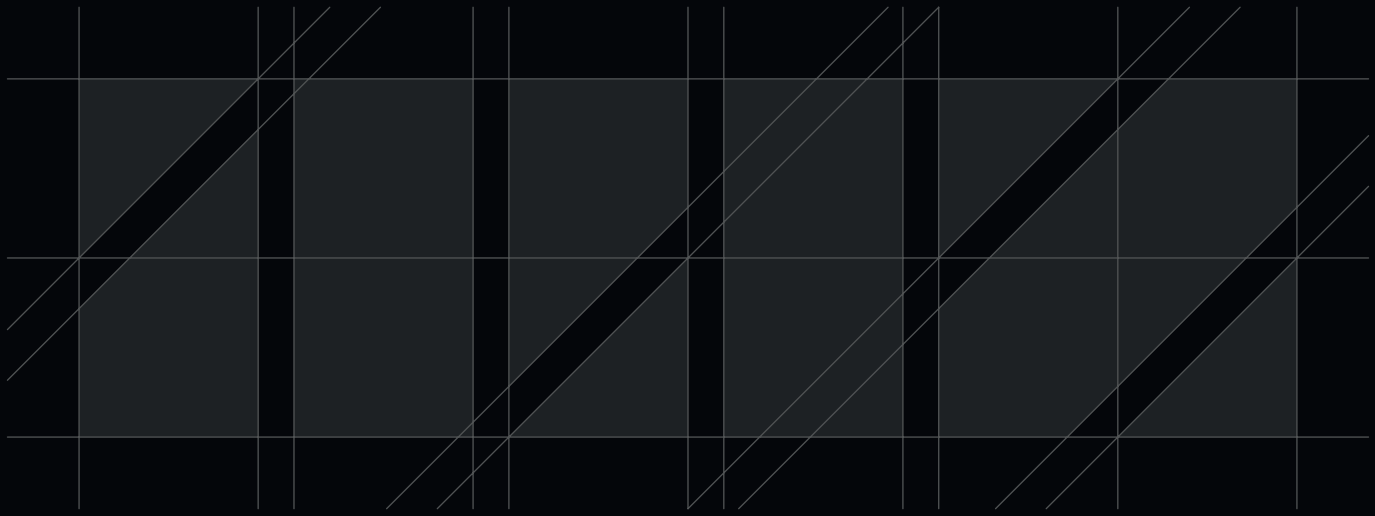
Top, back-perspetive and front views

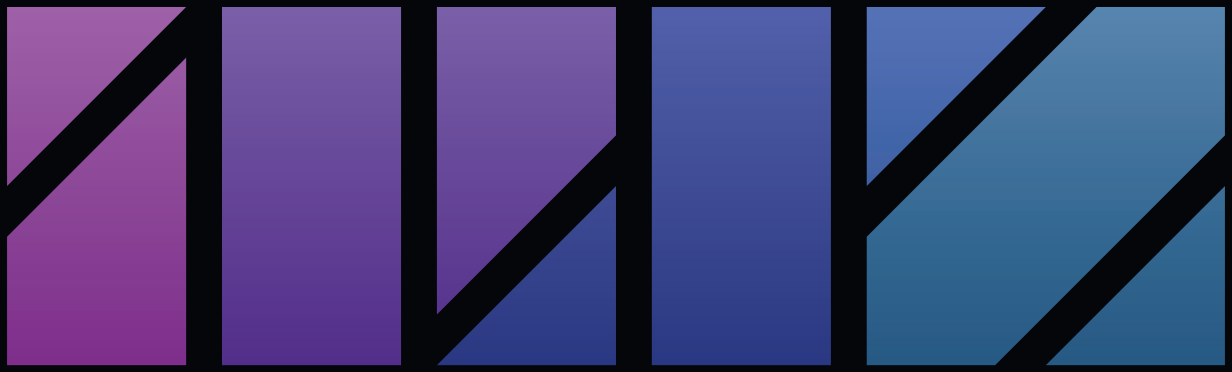


ORIGAMI BENCH

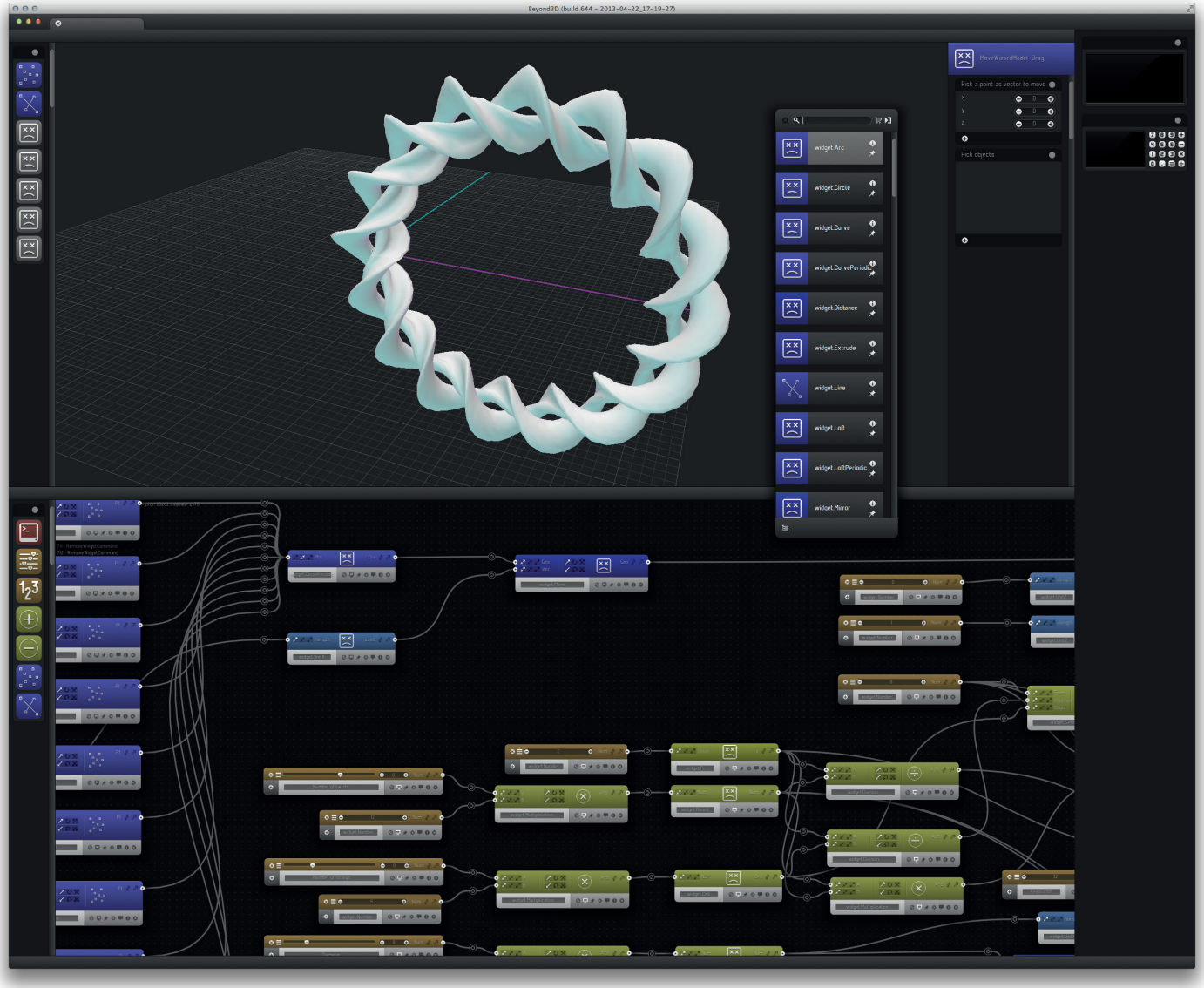
Minimal surface curvatures by folding paper.
CNC milled wood.
2010







IPSZ
Geometric glyphs as logotype for Interkulturális Pedagógiai Szakosztály.
2011

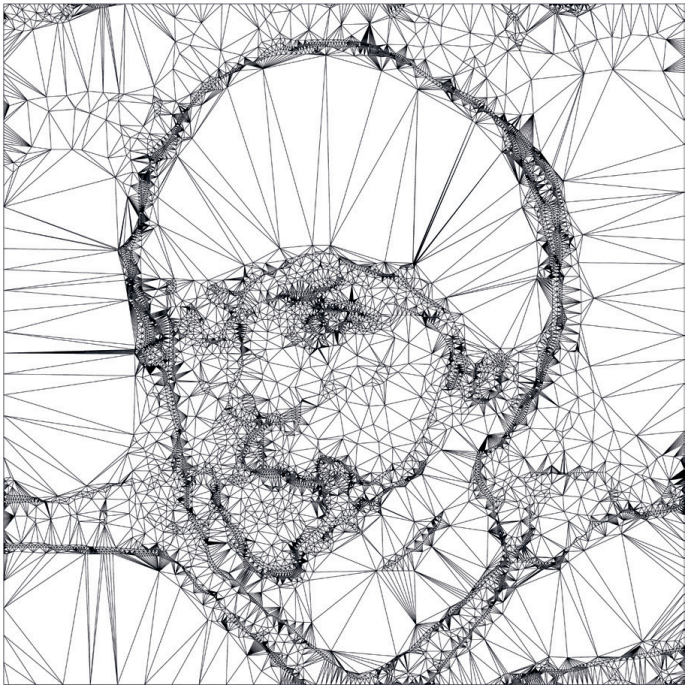


DEVSIGNER BEYOND3D

Generative 3D CAD modelling and cloud based editing, sharing and shopping ecosystem.

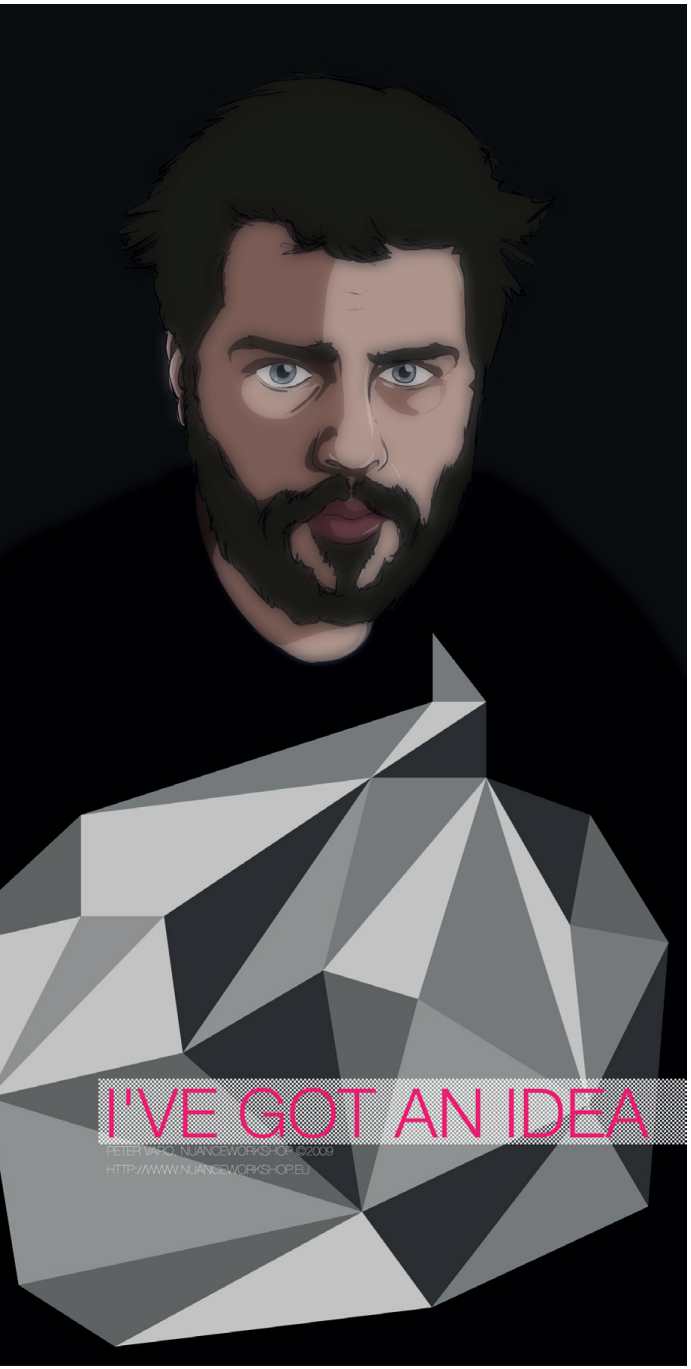
2010 - 2013

Web interface and 3D printed model



AVATARS

Self portraits over the years in different styles and techniques.
2005 - 2013


I'VE GOT AN IDEA
PETER VARO, NUANCEWORKSHOP ©2009
HTTP://WWW.NUANCEWORKSHOP.EU


I'VE GOT AN IDEA.
— design by peter varo ©2011