

The Archive of Possibilities

Maria Korschake



Digital Edition

The archive is endless.

Creating and exhibiting archives isn't something new. Especially since the 1960s, numerous artists have exhibited their collections as a source of inspiration.¹ Nevertheless, it still seems to fascinate.

By its very definition, an archive is a repository for non-public documents.² However, to archive is also a method.³ In the visual arts, the term "archive" – in the sense of "method" – is commonly used to describe a practice of collecting and storing.⁴

In the following, when I speak of "The Archive of Possibilities", I will always be speaking of the archive as a method and not as an institution.

"The Archive of Possibilities" is the beginning of my doctoral research on deviation as an artistic strategy to reflect the relationship between jewellery, identity and memory, which I am conducting at Hasselt University and PXL-MAD School of Arts in Hasselt, Belgium.

The archive is the visualization of my creative process, the generation of ideas and the reflection of theoretical knowledge. Furthermore, it forms the vocabulary of my research project.

The archive is divided into two different directions around deviation as an artistic strategy: on the one hand, there is the possibility to use deviation as a process; on the other hand, there is the possibility to use it as a principle.

Conceived as a process, deviation is used in such a way that within the (re)production process (or subsequent to it) there is a deviation that changes the identity-forming (formal and/or content-related) characteristics of the object.

¹ Ebeling, Knut (ed.) & Günzel, Stephan (ed.). *Archivologie: Theorien des Archivs in Philosophie, Medien und Künsten*. Berlin: Kulturverlag Kadmos, 2009: p. 233 - 252

² Pethes, Nicolas. *Gedächtnis und Erinnerung. Ein interdisziplinäres Lexikon*. Hamburg: Rowohlt Tachenbuch Verlag, 2001: p. 53

³ Ebeling, Knut (ed.) & Günzel, Stephan (ed.). 2009: p. 10

⁴ Ebeling, Knut (ed.) & Günzel, Stephan (ed.). 2009: p. 13

If deviation is used as a principle of design – (prior to (re)production) – there is a conscious intervention in the design process by examining and then consciously breaking the basic rules of the design and creation processes.

In both cases, the result is a deviation – a difference or change compared to a previous and/or planned condition – a difference from what is normal, usual and/or expected.

For the archive, a plain signet ring was (re)produced several times, using a wide variety of materials and techniques. However, the (re)productions were characterized by (intended) deviations, resulting from the (re)production process itself (material errors, process errors or external factors), subsequent interventions (time, use, individualization, de(con)struction or reconstruction) or artificial creations. Furthermore, the deviations resulted from intentionally breaking the rules of the object, material and/or process. This created a series of objects from which each copy was characterized by a partial loss, partial change or partial expansion of information.

In this context, information not only describes the physical but also the material iconological information of the object.

The shape of the object for (re)production was chosen for its ease of reproducibility.

Since my research project focuses on rings, with a special sub-focus on signet (or signet-like) rings, the object category was clear from the beginning. To find the shape, several designs were made, from which one was chosen because it could be produced most simply and cheaply using as many techniques and materials as possible.

"The Archive of Possibilities" is a way of learning how shapes and materials react and how this not only changes the formal appearance, but also the meaning

of objects. The resulting (deviant) objects contain the fingerprints of the process and the maker.⁵ All (re)productions contain a potential for deviation.

The (re)production techniques and materials were not limited. However, given that imperfection was my intention within this part of creating, the choice of techniques and the ways of alienating them were selected in a very specific manner, generating a variety of most interesting results based on applied material and technical knowledge. The technologies themselves were not the object of the research. Rather, it was about using them as a means to an end. It was about creating a variety of possibilities.

The archive is endless and will be continued throughout the whole research project. Nevertheless, the following publication is intended to give an initial overview of the (currently) most interesting objects in the collection. In the appendix, you will find notes on the objects, which will serve as a basis for further projects.

Maria Korschake, Hasselt, November 2022

⁵ Research Catalogue. [researchcatalogue.net](https://www.researchcatalogue.net). Consulted on 24.11.22 <https://www.researchcatalogue.net/view/612909/715222>
In their text "Digitally Produced Jewellery: Tactile Qualities of the Digital Touch", Sofia Hallik and Darja Popolitova talk about digital technologies, their tactile qualities and the different fingerprints technologies leave on objects.



DEVIATION as a process

DEVIATION within the (re)production process

Material related

Process related

External factors

Subsequent DEVIATION

Individualization

Use

Time

De(con)struction & reconstruction

Artificial creation

DEVIATION as a principle

Break the rules of the object

Break the rules of the material

Break the rules of the (production) process

Material category: Paper
Material specification: Unknown
Type of deviation: Within the (re)production process

No. 1

Technique: Cutting, folding and gluing
Maker of object: Maria Korschake



Material category: Plastics
Material specification: PLA
Type of deviation: Within the (re)production process

No. 9

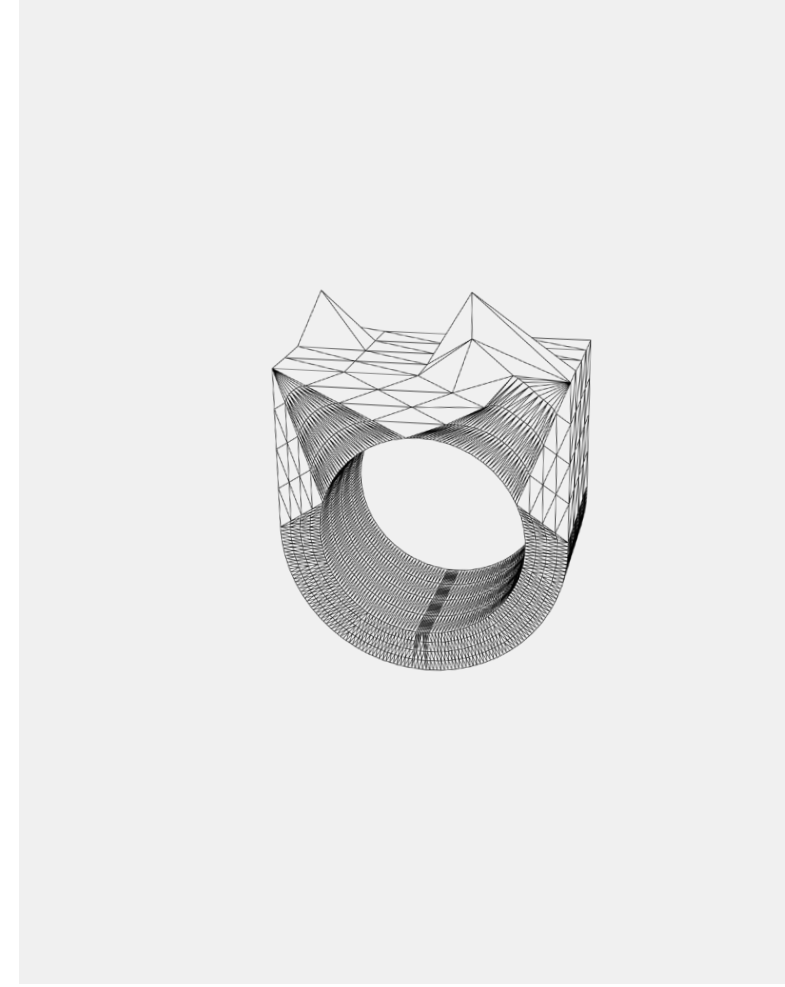
Technique: 3D printing (fused deposition modelling)
Maker of object: Maria Korschake



Material category: Digital
Material specification: 3D file
Type of deviation: Artificial creation

No. 11

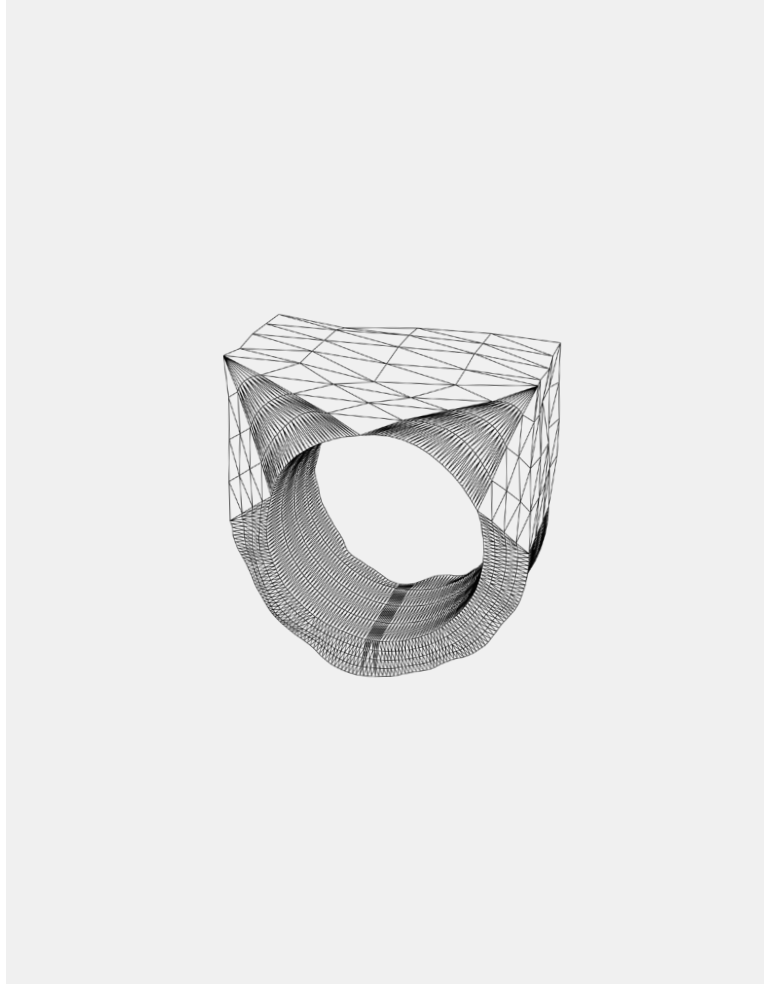
Technique: Digital modification of the 3D file of the object (Blender)
Maker of object: Maria Korschake



Material category: Digital
Material specification: 3D file
Type of deviation: Artificial creation

No. 13

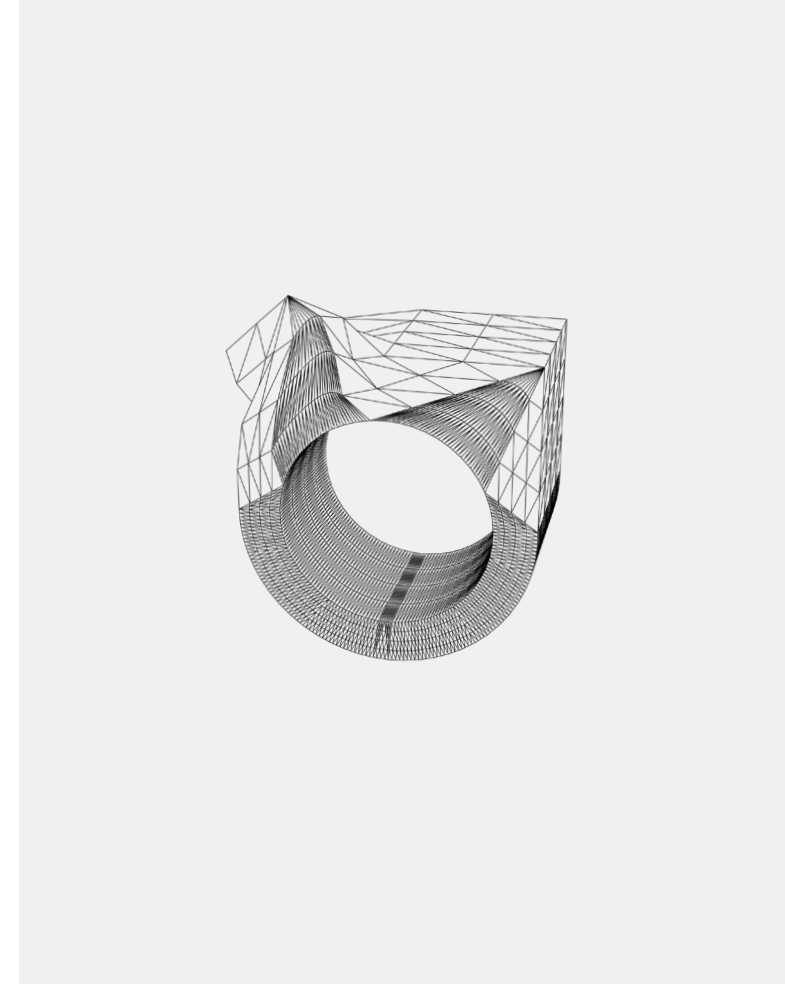
Technique: Digital modification of the 3D file of the object (Blender)
Maker of object: Maria Korschake



Material category: Digital
Material specification: 3D file
Type of deviation: Artificial creation

No. 17

Technique: Digital modification of the 3D file of the object (Blender)
Maker of object: Maria Korschake



Material category: Digital
Material specification: 3D file
Type of deviation: Artificial creation

No. 19

Technique: Digital modification of the 3D file of the object (Blender)
Maker of object: Maria Korschake



Technique:
Maker of object:

Material category: Other
Material specification: Jewellery wax
Type of deviation: Within the (re)production process

No. 22

Technique: Carving, sawing, filing and sanding
Maker of object: Maria Korschake



Technique:
Maker of object:

Material category: Metal
Material specification: Bronze
Type of deviation: Within the (re)production process

No. 23

Technique: Casting with fine casting company
Maker of object: Maria Korschake in coop. with Bernhard Kauselmann GmbH



Material category: Metal
Material specification: Aluminium
Type of deviation: Within the (re)production process

No. 25

Technique: Casting with fine casting company
Maker of object: Maria Korschake in coop. with Bernhard Kauselmann GmbH



Material category: Wood
Material specification: Curly birch
Type of deviation: Within the (re)production process

No. 27

Removing, cutting, filing, sanding and waxing
Maria Korschake

Technique:
Maker of object:



Material category: Wood
Material specification: Copper beech
Type of deviation: Within the (re)production process

No. 28

Removing, cutting, filing, sanding and waxing
Maria Korschake

Technique:
Maker of object:



Material category: Wood
Material specification: Plum
Type of deviation: Within the (re)production process

No. 29

Technique: Removing, cutting, filing, sanding and waxing
Maker of object: Maria Korschake



Technique:
Maker of object:

Material category: Wood
Material specification: Mutenye
Type of deviation: Within the (re)production process

No. 30

Technique: Removing, cutting, filing, sanding and waxing
Maker of object: Maria Korschake



Technique:
Maker of object:

Material category: Wood
Material specification: Mulberry
Type of deviation: Within the (re)production process

No. 31

Technique: Removing, cutting, filing, sanding and waxing
Maker of object: Maria Korschake



Material category: Wood
Material specification: Poplar
Type of deviation: Within the (re)production process

No. 32

Technique: Removing, cutting, filing, sanding and waxing
Maker of object: Maria Korschake



Material category: Wood
Material specification: Olive
Type of deviation: Within the (re)production process

No. 33

Technique:
Maker of object:

Carving and waxing
Maria Korschake



Material category: Other
Material specification: Polymer plaster
Type of deviation: Within the (re)production process

No. 34

Technique:
Maker of object:

Casting in silicone mould
Maria Korschake



Material category: Other
Material specification: Polymer plaster
Type of deviation: Within the (re)production process

No. 35

Technique: Casting in silicone mould
Maker of object: Maria Korschake



Material category: Paper
Material specification: Papier-mâché
Type of deviation: Within the (re)production process

No. 36

Technique: Casting in silicone mould
Maker of object: Maria Korschake



Material category: Other
Material specification: Silicone
Type of deviation: Within the (re)production process

No. 37

Casting in silicone mould
Maria Korschake

Technique:
Maker of object:



Material category: Other
Material specification: Sculptor's wax
Type of deviation: Within the (re)production process

No. 38

Casting in silicone mould
Maria Korschake

Technique:
Maker of object:



Material category: Textile
Material specification: Unknown
Type of deviation: Within the (re)production process

No. 39

Sewing by hand
Lina-Maria Köhn

Technique:
Maker of object:



Material category: Plastics
Material specification: 2-component model making foam
Type of deviation: Within the (re)production process

No. 40

Casting in silicone mould
Maria Korschake

Technique:
Maker of object:



Material category: Plastics
Material specification: Sponge
Type of deviation: Within the (re)production process

No. 41

Cutting (with scissors and punch)
Maria Korschake

Technique:
Maker of object:



Material category: Plastics
Material specification: Polyester filter foam
Type of deviation: Within the (re)production process

No. 42

Cutting (with scissors and punch)
Maria Korschake

Technique:
Maker of object:



Material category: Paper
Material specification: Cardboard
Type of deviation: Within the (re)production process

No. 43

Technique: Laser cutting and layering
Maker of object: Maria Korschake in coop. with Tom De Weyer



Material category: Paper
Material specification: Cardboard
Type of deviation: Within the (re)production process

No. 44

Technique: Laser cutting and layering
Maker of object: Maria Korschake in coop. with Tom De Weyer



Material category: Plastics
Material specification: Acrylic mirror glass
Type of deviation: Within the (re)production process

No. 45

Technique: Laser cutting and layering
Maker of object: Maria Korschake in coop. with Tom De Weyer



Material category: Wood
Material specification: Birch-layered plywood
Type of deviation: Within the (re)production process

No. 46

Technique: Laser cutting and layering
Maker of object: Maria Korschake in coop. with Tom De Weyer



Material category: Paper
Material specification: Cardboard
Type of deviation: Within the (re)production process

No. 47

Technique: Slicing (Slicer for Fusion), laser cutting and layering
Maker of object: Maria Korschake in coop. with Tom De Weyer



Technique: Slicing (Slicer for Fusion), laser cutting and layering
Maker of object: Maria Korschake in coop. with Tom De Weyer

Material category: Plastics
Material specification: LEGO
Type of deviation: Within the (re)production process

No. 51

Technique: Assembling
Maker of object: Maria Korschake



Technique: Assembling
Maker of object: Maria Korschake

Material category: Plastics
Material specification: LEGO
Type of deviation: Within the (re)production process

No. 52

Technique:
Maker of object:

Assembling
Maria Korschake



Material category: Glass
Material specification: Bullseye (number unknown)
Type of deviation: Within the (re)production process

No. 53

Technique:
Maker of object:

Kiln casting in silicate plaster mould
Maria Korschake



Material category: Textile
Material specification: Unknown
Type of deviation: Within the (re)production process

No. 55

Technique: Crochet
Maker of object: Anke Wessel



Material category: Other
Material specification: Wood filler
Type of deviation: Within the (re)production process

No. 56

Technique: Casting in silicone mould
Maker of object: Maria Korschake



Material category: Stone
Material specification: 3D printed stone
Type of deviation: Within the (re)production process

No. 57

Technique: 3D printing of stone powder
Maker of object: Maria Korschake in coop. with Concr3de



Material category: Other
Material specification: Glycerin soap
Type of deviation: Within the (re)production process + Subsequent

No. 59

Technique: Casting in silicone mould and use
Maker of object: Maria Korschake



Material category: Ceramics
Material specification: Limoges porcelain
Type of deviation: Within the (re)production process + Subsequent

No. 61

Technique: Slip casting, firing and breaking
Maker of object: Maria Korschake



Technique:
Maker of object:

Material category: Ceramics
Material specification: Limoges porcelain
Type of deviation: Within the (re)production process

No. 64

Technique: Slip casting and firing
Maker of object: Maria Korschake



Technique:
Maker of object:

Material category: Other
Material specification: Sealing wax
Type of deviation: Within the (re)production process

No. 66

Technique: Casting in silicone mould
Maker of object: Maria Korschake



Material category: Metal
Material specification: Tin (99,9%)
Type of deviation: Within the (re)production process

No. 67

Technique: Casting in silicone mould
Maker of object: Maria Korschake



Material category: Metal
Material specification: Silver 925
Type of deviation: Within the (re)production process + Subsequent

No. 69

Technique: Casting with fine casting company and subsequent individualisation with name sign (stamp)
Maker of object: Maria Korschake in coop. with Bernhard Kauselmann GmbH



Material category: Other
Material specification: Wooden soldering coal from lime wood
Type of deviation: Within the (re)production process

No. 70

Technique: Carving by hand
Maker of object: Maria Korschake



Material category: Metal
Material specification: Copper
Type of deviation: Within the (re)production process

No. 71

Technique:
Maker of object:

Sawing by hand
Maria Korschake



Material category: Stone
Material specification: Soap stone
Type of deviation: Within the (re)production process

No. 72

Technique:
Maker of object:

Carving by hand
Maria Korschake



Material category: Other
Material specification: Salt dough
Type of deviation: Within the (re)production process

No. 73

Technique: Forming by hand and baking
Maker of object: Maria Korschake



Technique: Forming by hand and baking
Maker of object: Maria Korschake

Material category: Ceramics
Material specification: Mixture of electro oven porcelain clays
Type of deviation: Within the (re)production process

No. 78

Technique: 3D printing of clay
Maker of object: Maria Korschake in coop. with Babette Wieszorek



Technique: 3D printing of clay
Maker of object: Maria Korschake in coop. with Babette Wieszorek

Material category: Metal
Material specification: Silver 999
Type of deviation: Within the (re)production process

No. 80

Technique: Vacuum casting of eyelets and assembling
Maker of object: Maria Korschake



Technique:
Maker of object:

Material category: Plastics
Material specification: Tape (tesa)
Type of deviation: Within the (re)production process

No. 81

Technique: Wrapping
Maker of object: Maria Korschake



Technique:
Maker of object:

Material category: Plastics
Material specification: Thermoplastic modelling plate
Type of deviation: Within the (re)production process

No. 82

Technique: Heat moulding over resin base mould
Maker of object: Maria Korschake



Technique: Heat moulding over resin base mould
Maker of object: Maria Korschake

Material category: Plastics
Material specification: Recycled mixture
Type of deviation: Within the (re)production process

No. 83

Technique: Injection moulding in aluminium mould
Maker of object: Maria Korschake in coop. with Tom De Weyer



Technique: Injection moulding in aluminium mould
Maker of object: Maria Korschake in coop. with Tom De Weyer

Material category: Plastics
Material specification: Recycled mixture
Type of deviation: Within the (re)production process

No. 84

Technique: Injection moulding in aluminium mould
Maker of object: Maria Korschake in coop. with Tom De Weyer

Technique:
Maker of object:



Material category: Stone
Material specification: Marble
Type of deviation: Within the (re)production process + Subsequent

No. 88

Technique: Waterjet cutting and grinding
Maker of object: Maria Korschake in coop. with Tom De Weyer

Technique:
Maker of object:



Material category: Stone + Other
Material specification: Marble and wax
Type of deviation: Within the (re)production process + Subsequent

No. 90

Technique: Waterjet cutting, destruction and reconstruction with wax in silicone mould
Maker of object: Maria Korschake in coop. with Tom De Weyer



Material category: Ceramics
Material specification: Air-drying model making clay
Type of deviation: Within the (re)production process

No. 91

Technique: Forming by hand and air-drying
Maker of object: Maria Korschake



Material category: Metal
Material specification: Steel
Type of deviation: Within the (re)production process

No. 92

Technique: Vacuum casting
Maker of object: Maria Korschake in coop. with Madeli Viljoen



Material category: Plastics
Material specification: White resin
Type of deviation: Within the (re)production process

No. 93

Technique: 3D printing (stereolithography) with unintended deviations within the print
Maker of object: Maria Korschake



Material category: Other
Material specification: 2-component model making foam
Type of deviation: Within the (re)production process

No. 97

Technique: Casting in silicone mould
Maker of object: Maria Korschake



Material category: Other
Material specification: 2-component model making foam
Type of deviation: Within the (re)production process

No. 98

Technique: Casting in paper mould
Maker of object: Maria Korschake



Material category: Plastics
Material specification: White resin
Type of deviation: Within the (re)production process + Subsequent

No. 99

Technique: 3D printing (stereolithography) and subsequent contamination
Maker of object: Maria Korschake



Material category: Metal
Material specification: Copper wire and silver solder
Type of deviation: Within the (re)production process

No. 100

Technique: Wrapping and soldering
Maker of object: Maria Korschake



Material category: Other
Material specification: Coffee with bone glue
Type of deviation: Within the (re)production process

No. 101

Technique: Casting into silicone mould
Maker of object: Maria Korschake



Technique: Casting into silicone mould
Maker of object: Maria Korschake

Material category: Wood
Material specification: Plum wood
Type of deviation: Within the (re)production process + Subsequent

No. 104

Technique: Carving from wet wood and drying on heating
Maker of object: Maria Korschake



Technique: Carving from wet wood and drying on heating
Maker of object: Maria Korschake

Material category: Other
Material specification: Sugar and reused aluminium foil
Type of deviation: Within the (re)production process

No. 105

Technique: Casting in silicone mould and wrapping in aluminium foil
Maker of object: Maria Korschake

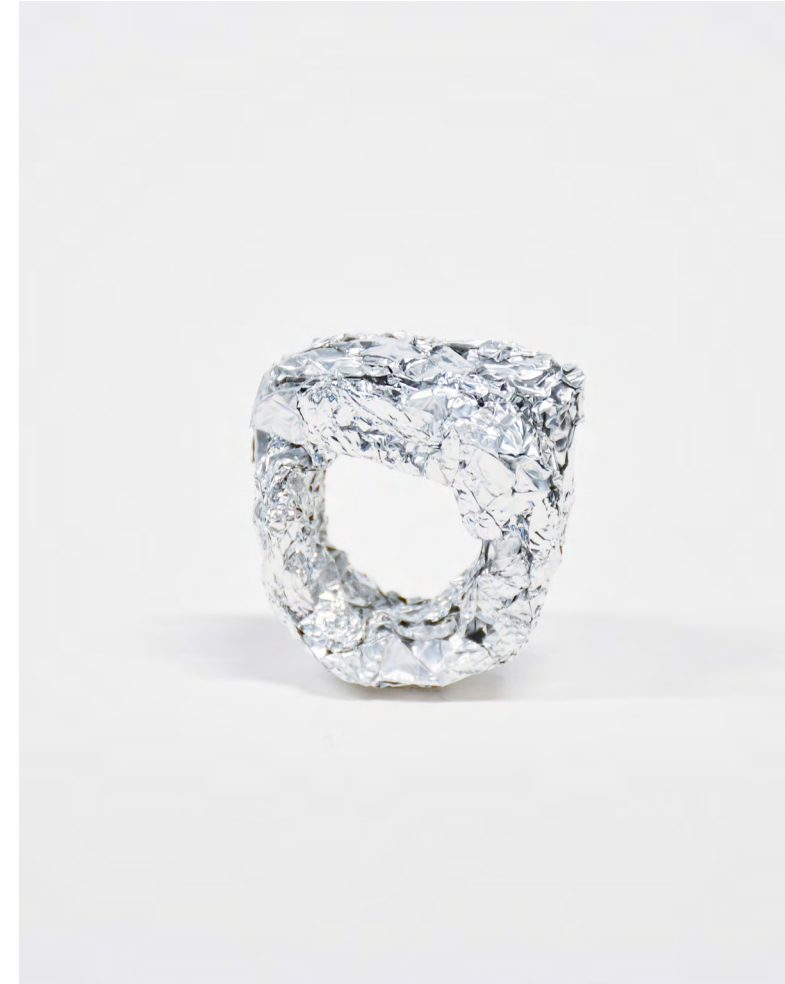


Technique: Casting in silicone mould and wrapping in aluminium foil
Maker of object: Maria Korschake

Material category: Metal
Material specification: Aluminium foil
Type of deviation: Within the (re)production process

No. 107

Technique: Crumpling in silicone mould
Maker of object: Maria Korschake



Technique: Crumpling in silicone mould
Maker of object: Maria Korschake

Material category: Other
Material specification: Bees wax
Type of deviation: Within the (re)production process

No. 109

Technique:
Casting in silicone mould
Maker of object:
Maria Korschake



Technique:
Casting in silicone mould
Maker of object:
Maria Korschake

Material category: Wood
Material specification: Unknown
Type of deviation: Within the (re)production process + Subsequent

No. 112

Technique:
Removing, cutting, filing, sanding, igniting and extinguishing
Maker of object:
Maria Korschake



Technique:
Removing, cutting, filing, sanding, igniting and extinguishing
Maker of object:
Maria Korschake

Material category: Other
Material specification: 2 types of silicone
Type of deviation: Within the (re)production process +
Artificial creation

No. 113

Technique: Silicone poured in silicone mould without using release agent
Maker of object: Maria Korschake



Material category: Glass
Material specification: Bullseye 0100
Type of deviation: Within the (re)production process +
Artificial creation

No. 115

Technique: Digital modification of the 3D file of the object (Blender) and
kiln casting
Maker of object: Maria Korschake



Material category: Other
Material specification: Heat resistant silicone
Type of deviation: Within the (re)production process

No. 121

Casting in mould around object
Maria Korschake

Technique:
Maker of object:



Material category: Other
Material specification: Oil paint
Type of deviation: Within the (re)production process

No. 122

Stuffing in silicone mould
Maria Korschake

Technique:
Maker of object:



Material category: Other
Material specification: Buffalo horn
Type of deviation: Within the (re)production process

No. 124

Technique: Removing, cutting, filing and sanding
Maker of object: Maria Korschake



Material category: Wood + Other
Material specification: Old chair from spray paint booth, covered with layers of paint
Type of deviation: Within the (re)production process

No. 126

Technique: Removing, cutting, filing and sanding
Maker of object: Maria Korschake



Material category: Metal
Material specification: Silver 999
Type of deviation: Within the (re)production process

No. 128

Technique: Vacuum casting with too much borax
Maker of object: Maria Korschake in coop. with Elliot Keeley



Material category: Other
Material specification: Stucco marble (plaster with bone glue)
Type of deviation: Within the (re)production process

No. 129

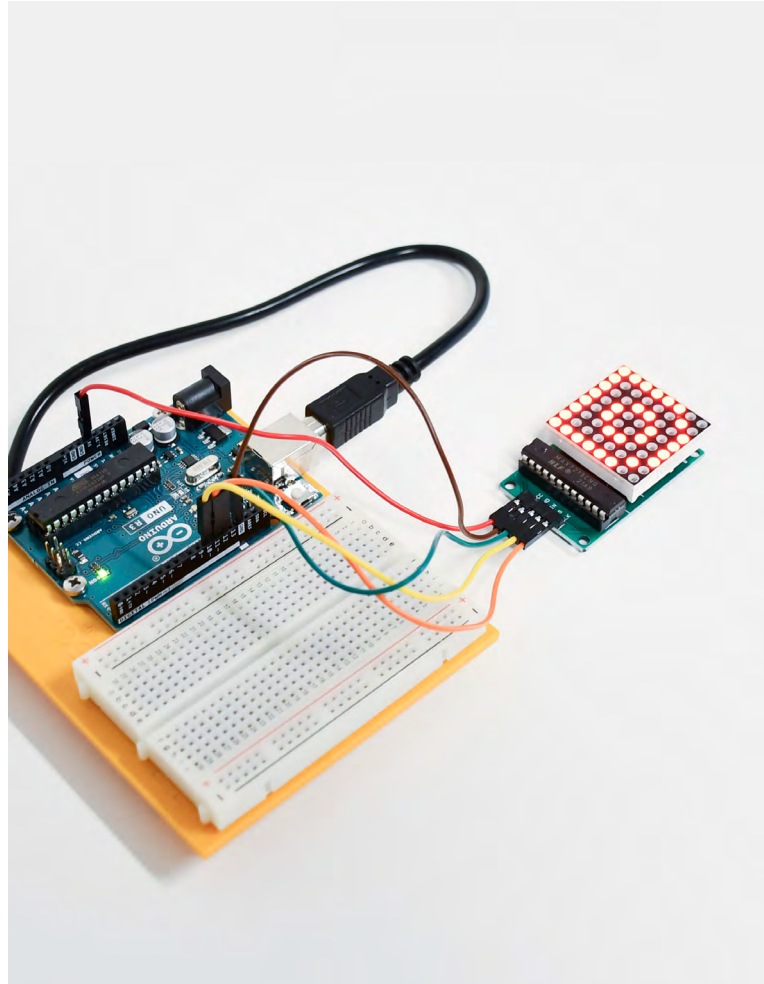
Technique: Casting in silicone mould
Maker of object: Maria Korschake



Material category: Other + Digital
Material specification: Arduino combined with LED panel
Type of deviation: Within the (re)production process

No. 130

Technique: Coding and assembling
Maker of object: Maria Korschake in coop. with Frank Stüwe



Material category: Other
Material specification: Linoleum printing plate
Type of deviation: Within the (re)production process

No. 131

Technique: Carving
Maker of object: Maria Korschake



Material category: Other
Material specification: Ironing beads
Type of deviation: Within the (re)production process

No. 133

Ironing beads on ironing plate
Maria Korschake

Technique:
Maker of object:



Material category: Textile + Other
Material specification: Mending fabric and glass beads
Type of deviation: Within the (re)production process

No. 136

Stitching on mending fabric
Maria Korschake

Technique:
Maker of object:



Material category: Metal
Material specification: Steel
Type of deviation: Within the (re)production process

No. 138

Technique: 3D printing (laser sintering)
Maker of object: Maria Korschake in coop. with i.materialise



Material category: Wood
Material specification: Unknown, coffee and sawdust
Type of deviation: Within the (re)production process + Subsequent

No. 143

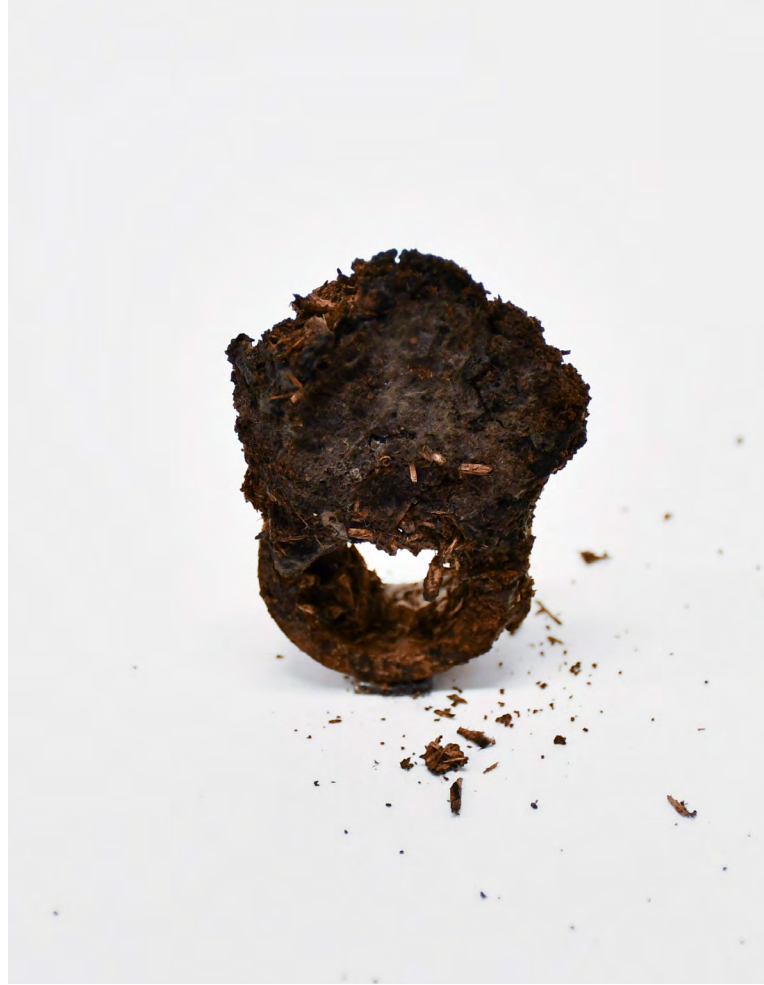
Technique: Removing, cutting, filing, sanding and rotting in coffee grounds with fungal spores
Maker of object: Maria Korschake



Material category: Wood + Other
Material specification: Unknown, coffee, sawdust and fungus
Type of deviation: Within the (re)production process + Subsequent

No. 144

Technique: Removing, cutting, fling, sanding and rotting in coffee grounds
with fungal spores
Maker of object: Maria Korschake



Material category: Metal
Material specification: Aluminium
Type of deviation: Within the (re)production process +
Artificial creation

No. 146

Technique: Milling and waterjet cutting
Maker of object: Maria Korschake in coop. with WIS marine GmbH



Material category: Other
Material specification: Kirei EchoPanel® grey
Type of deviation: Within the (re)production process

No. 149

Technique: Laser cutting
Maker of object: Maria Kanschake in coop. with Tom De Weyer



Material category: Other
Material specification: Corian® blue spice
Type of deviation: Within the (re)production process

No. 150

Technique: Waterjet cutting
Maker of object: Maria Kanschake in coop. with Tom De Weyer



Material category: Stone
Material specification: Westbrook concrete block
Type of deviation: Within the (re)production process

No. 153

Technique: Waterjet cutting
Maker of object: Maria Korschake in coop. with Tom De Weyer



Material category: Other
Material specification: Trio Mat
Type of deviation: Within the (re)production process

No. 155

Technique: Waterjet cutting
Maker of object: Maria Korschake in coop. with Tom De Weyer



Material category: Wood
Material specification: Chestnut
Type of deviation: Within the (re)production process

No. 156

Technique: Removing, cutting, filing, sanding and waxing
Maker of object: Maria Korschake



Material category: Wood
Material specification: Copper beech
Type of deviation: Within the (re)production process

No. 157

Technique: Removing, cutting, filing, sanding and waxing
Maker of object: Maria Korschake



Material category: Wood
Material specification: Pear
Type of deviation: Within the (re)production process

No. 158

Technique: Removing, cutting, filing, sanding and waxing
Maker of object: Maria Korschake



Material category: Wood
Material specification: Alder
Type of deviation: Within the (re)production process

No. 159

Technique: Removing, cutting, filing, sanding and waxing
Maker of object: Maria Korschake



Material category: Wood
Material specification: Cherry
Type of deviation: Within the (re)production process

No. 160

Technique: Removing, cutting, filing, sanding and waxing
Maker of object: Maria Korschake



Material category: Wood
Material specification: Ash
Type of deviation: Within the (re)production process

No. 162

Technique: Removing, cutting, filing, sanding and waxing
Maker of object: Maria Korschake



Material category: Wood
Material specification: Apple
Type of deviation: Within the (re)production process

No. 163

Technique: Removing, cutting, filing, sanding and waxing
Maker of object: Maria Korschake



Material category: Wood
Material specification: Maple
Type of deviation: Within the (re)production process

No. 164

Technique: Removing, cutting, filing, sanding and waxing
Maker of object: Maria Korschake



Material category: Other
Material specification: Tape
Type of deviation: Within the (re)production process

No. 165

Technique: Waterjet cutting
Maker of object: Maria Korschake in coop. with Tom De Weyer



Material category: Other
Material specification: Sticker from Kirei EchoPanel®
Type of deviation: Within the (re)production process

No. 166

Technique: Laser cutting
Maker of object: Maria Korschake in coop. with Tom De Weyer



Results of DEVIATION

Loss of information

Change of information

Expansion of information

Appendix

The notes listed in the appendix are subjective notes that serve to help reflect on the objects created. These notes do not represent complete material iconological, or aesthetic considerations, but merely should function as starting points and thought basis for further projects that build upon this archive.

No. 1

A paper model is often the first step in a design process. It facilitates a quick visualization, but (especially with curved elements) it also requires a certain degree of abstraction.

The unclear processing of the object shown here has clear mock-up character.

The material itself can refer either to the paper properties in general (e.g. fragility) or to a specific type of paper (e.g. reference to region, technique or specific art genre).

No. 9

The visible layering of the model, that results from the printing process, has an expressive character that clearly refers to digital manufacturing technologies.

Nowadays, the material itself (plastic) has pretty bad associations (e.g. throwaway society, pollution, ...)

No. 11 - 19

Digital manipulation of the source material enables a wide range of design possibilities.

Within this manipulation, the respective technique can either be given special importance (e.g. soften, hook, ...) or one can think about modification of details in general. By emphasizing certain elements, others fade into the background, which can lead to a change in the meaning of the piece.

No. 27 - 32

(Re)productions in wood allow a certain level of detail, depending on the type of wood and the technique and tools used for (re)production. The fine detail of the surface depends mostly on the type of wood - the harder, the finer.
Woods are usually associated with naturalness. The respective type of wood can form links to the (historical) use and/or the geographical occurrence.

No. 23 - 25

Fine (vacuum) casting is probably one of the techniques that allow the most precise (re)production of metal objects.
The specific material chosen (e.g. copper, aluminium, ...) offers material iconological potential through its colour, (historical) use and/or physical properties (e.g. softness, ...).

No. 22

Wax (when used correctly) enables the finest details to be depicted. However, it also stands for transience and is often associated with model making.
The blue wax used here is clearly recognisable (to trained eyes) as jewellery wax, and thus forms a bridge to classic goldsmith models.

No. 36

Papier-mâché has a mock-up character. It tends not to be associated with final objects.
Its use here shows shrinkage and a huge loss of detail, which is due to incorrect usage and the fact that it is an unsuitable technique. The object evokes the association that it is either very old or has been destroyed.

No. 34 - 35

Polymer plaster enables the highest level of detail (depending on its use).
Plaster has a long history of use as a building and sculpting material. In the latter, it is (and was) used either directly for sculptures, or for moulds and models. The acrylic resin added here improves durability, but at the same time, evokes negative associations regarding health and the environment.
The bubbles and loss of detail in No. 35 are clearly due to incorrect handling of the material. The preservation of the casting sprue creates an unfinished character.

No. 33

As with the previous wood samples (cf. 27 - 32), a certain level of detail is possible in the (re)productions, depending on the type of wood, the technique and tools used for the (re)production.
The use of a rough carving technique, as is the case here, may refer to intended deviation or indicate an unfinished process, an unskilled maker or a lack of tools.
As with the previous wood samples, woods would normally be associated with naturalness. Olive wood in particular can refer to a specific (historical) use and/or geographical occurrence.

No. 37

The silicone used for this object arouses curiosity, as the ring suddenly acquires a flexibility that is not normally associated with jewellery.

The object itself shows signs of imprecise execution of its production and clearly has prototype character. The preservation of the casting sprue reveals the manufacturing process.

No. 38

As with No. 22, the wax in this case (when used correctly) enables the finest details to be depicted. However, it also stands for transience and is rather associated with model making.

The green wax used here is (in contrast to the blue jewellery wax of No. 22) not immediately recognisable as sculptor's wax. In the application here (due to process errors), there are deviations in the surface of the ring.

No. 39

The stuffed cotton ring immediately evokes associations with pillows or cuddly toys. The significance of the exact material (what kind of fabric) recedes somewhat into the background. It is rather the technique that is important.

Sewn reproductions in fabric (in this size) allow for few details, but have their own fascinating character.

No. 40

The 2-component modelling foam is a modelling material based on two liquids reacting with each other. If used incorrectly (as happened here), the expanding object will contract again before curing.

The material allows only a few details to be presented and has a certain unpredictability in the processing. Emotional associations tend to be negative, as the material seems harmful to the environment and health.

No. 41

The ring, from the dish sponge, seems like a quick prototype. It lacks detail, accuracy and seems improvised. It is a model from what one would typically have at hand, suitable for quick visualisation of an idea, but nothing more.

No. 42

Polyester filter foam is a material unsuitable for details. Recognizing clear outlines of the object becomes almost impossible.

The material does not evoke deeper emotions and/or associations.

No. 46

The layering of birch plywood is reminiscent of the cardboard models No. 43 and 44, although here a slightly more durable material is used. It is limited in the possibilities of visualizing rounded shapes and (depending on the orientation of the layering) in particular three-dimensional details require abstraction. Plywood has a hobbyist character and appears more as a mock-up material.

No. 45

Acrylic mirror glass is a lightweight alternative to real mirror glass. The material requires abstraction with three-dimensional details. With the use of mirror-like material, you can create a certain invisibility. Although used here, layering does not seem to be the best option to create such an object. Instead, a second attempt could be made with a different construction method (mitre assembly).

No. 43 - 44

Cardboard can be (similar to paper - No. 1) used for the first step in the design process. It allows for quick visualization. Unlike paper, more abstraction is often required and volumes are (usually) created by layering, rather than folding. Associations include packaging materials and mock-ups.

No. 53

Glass usually stands for fragility and transparency. However, the object designed here is translucent, instead of transparent, because the surface was not polished, but only ground. This may indicate a deliberate act, an incomplete process, or an untrained maker. Due to the manufacturing process (kiln casting), there are also some small bubbles trapped in the material. If applied correctly, the technique (kiln casting) allows a high level of detail to be achieved.

No. 51 - 52

LEGO is a children's toy that does not allow for accurate construction or representation of details. However, it has an enormously playful character.

No. 47

The associations connected to this object are similar to No. 43 and 44. However, here the technique is more in focus. Changing the orientation of the layering alienates the object, and thus it seems much more like a conscious design decision, rather than a manufacturing consequence. Moreover, it seems like the change of the orientation of the layering allows even fewer details than in object No. 43 and 44.

No. 57

3D printed stone combines historical material with modern technology. The surface is rough and does not allow for the (re)production of fine detail. Edges and corners appear slightly rounded.

No. 56

Wood filler is a material that is not usually used for objects, but only for touching up (or filling) small defects in surfaces.
It is friable, and the manufacturing technique used here leads to large deviations in the surface.

No. 55

Crochet is still mostly associated with leisure activities. The production of the object requires a certain level of skill and strong abstraction. The representation of fine details and exact shapes is impossible.

No. 66

Sealing wax was used in the past to seal, or authenticate documents. Mostly, one pressed a seal (ring) into the still liquid wax in order to create the stamp. A ring made of this material suddenly reverses this function.
Due to the shrinkage during cooling within the (re) production process, deviations in the surface have occurred.
Details are possible to a certain extent, but may deform in the process of cooling.

No. 61 - 64

Porcelain allows for some detail, but the object changes due to shrinkage during drying, as well as firing. In terms of content, one can draw references to the historical use, as well as to the material properties (hard and fragile).
Broken porcelain has the character of historical artefacts or broken household goods.
Even though this wasn't done here, shrinkage can be calculated so that the final object has the correct size.

No. 59

The importance of soap has changed significantly due to the Corona-pandemic.
The ring made here is interesting in that it can really be used for (hand) washing. Through its use, it deforms and finally dissolves completely.
The creation of details is possible. However, with use, their durability is very short.

No. 67

The tin object creates the observed deviation mainly due to the shrinkage of the material (caused by an inappropriate casting process) and the resulting deformation of the surface.

The material's iconological potential is related to its (historical) use (e.g. toy soldiers, ...).

No. 69

A (re)production in cast silver allows for the highest level of detail.

The subsequent individualisation of the perfectly crafted object by the name stamp is a special (subsequent) form of deviation.

No. 70

Wooden soldering charcoal made of lime wood is a material from the goldsmith's workshop. The soldering charcoal is usually used as a soldering base for making objects, but not as a final material.

The material is brittle and stains. Detailed representations are very difficult, almost impossible.

No. 71

The reproduction in two-dimensional copper sheet requires abstraction, and surface details could hardly be reproduced.

The sheet is almost like a materialised shadow or silhouette.

No. 72

Soapstone (as opposed to marble) is associated more with the hobbyist field than with professional sculpting. Exactly the same association arises from the rough carving technique (similar to object No.33). It may indicate intended deviation, an unfinished process, an unskilled maker or a lack of tools.

The ring appears unfinished.

No. 73

Salt dough is associated with children's leisure activities. The raw material does not allow details and only approximate proportions. In addition, it changes slightly during baking.

It would be possible to draw general associations to the (historical and/or cultural) use and meaning of bread and other baked goods.

No. 81

(Tesa) tape definitely doesn't seem like a material for a final object, but (similar to No. 41) like a material for quick visualization. The representation of details and exact proportions is not possible and was therefore neglected.

No. 80

The representation of the ring by silver eyelets requires a lot of abstraction. Details can not be depicted. The eyelets follow the basic shape, only becoming visible when they are put in place.

No. 78

3D printed ceramics combine historical material with modern technology. The emotional association is clearly dominated by the modern and technology, which stands out through the surface texture. The layering prevents the level of detail that classical ceramic manufacturing processes allow. Shrinkage can be calculated so that the final object has the correct size.

No. 88

Marble usually allows for quite a lot of detail. However, in this case, waterjet cutting and a subsequent grinding were used to produce the object. As a result, the exact shape as well as certain details are lost. The object seems as if it has been polished by time and/or erosion.

No. 83 - 84

Injection moulded parts made from recycled plastic allow for a certain level of detail. However, the representation of very fine structures is not possible. The plastic shrinks during cooling, which leads to slight deformations. Depending on the application, reproductions of varying accuracy are possible. The association varies between negative (plastic) and positive (recycling). The objects have a playful character.

No. 82

The thermoplastic modelling plate shows the object as if it were covered by a stiff fabric. The material is clearly a mock-up material, used to visualize a realization in another material. The association linked to the material refers to plastic and is therefore mostly negative (e.g. pollution, throw-away society).

No. 90

The reproduction in marble and wax was created by destroying and subsequently reconstructing a (precise) waterjet cut marble ring. The object shows how a piece can change through inappropriate reconstruction.

No. 91

Air-drying modelling clay has a clear hobby character. The clay allows almost no representation of details to be shown, it also has an unclean surface, deforms and shrinks when drying. In particular, the latter creates additional deviation.

No. 92

Vacuum casting usually allows for a high level of detail. However, this casting used steel scrap, resulting in a difficult to handle alloy and a high loss of detail. Preserving the casting sprue helps visualize the manufacturing process and further alienates the object.

No. 93

3D printed resin reproduction usually allows for the highest level of detail. However, a technical (non-repeatable) error in the printing process resulted in a deviation in the print image here.

No. 97

The 2-component modelling foam is a modelling material (cf. No. 40). If used incorrectly (as happened here), it contracts again before hardening. The misapplication was further exacerbated by overfilling the silicone mould used to create the model. This caused the mushroom-like bulge on the ring head. The material allows only a few details and has a certain unpredictability during processing. Emotional associations tend to be negative, as the material seems harmful to the environment and health.

No. 98

The material is the same as in objects 40 and 97, but there is a change in the process and the liquid material was poured into a paper mould instead of a silicone mould. During the expansion and hardening process, the modelling material and the mould material bonded. There are other process errors and the material associations are similar to object No. 40 and 97.

No. 99

3D printed resin reproduction usually allows for the highest level of detail. However, the object shown here was subsequently contaminated, as it was used again and again as a template in various modelling processes.

The object clearly thematizes subsequent deviation/contamination through use.

No. 100

The object is a quick, improvised and inaccurate reproduction. Detailed representations are impossible, and even the basic form shows strong deviations in shape and proportion.

The shape is reminiscent of copper toroidal transformers. The silver solder is a trace effect from a poorly executed and improvised manufacturing process.

No. 101

The ring made of coffee and bone glue has deformed significantly in the manufacturing process. The process (in this form) hardly allows for detail and shape accuracy.

Despite the use of natural materials, the object looks artificial, as if it were made of plastic. It is surprisingly stable.

No. 104

The process-related deviation is similar to that of object No. 33. However, the process was further exaggerated here by carving in fresh wood and then drying it on a heater. As a result, the object has shrunk considerably and has also deformed (especially in one direction). The final outcome looks amateurish.

No. 105

The sugar reproduction starts with poured liquid sugar, which is then wrapped in used praline paper. The sugar (re)production step already makes some details disappear. Wrapping the object in foil then alienates it further, as the ring opening is only visible through a slight outline on the front of the praline paper.

The associations are clearly in the area of sweets and chocolates, but not in the area of jewellery.

No. 107

The crumpled aluminium foil seems less like a final object and more like randomly ideally formed waste.

Detailed representations are impossible. Shapes require abstraction.

No. 113

Object No. 113 is the result of an unintended process error. Actually, a silicone ring with a special surface structure was to be created. Due to the use of insufficient release agent, the ring (irreversibly) connected with the mould and this object was created. The emotional association clearly says "unintended accident".

No. 112

The burnt wooden object clearly thematizes destruction and transience. The burning process has greatly altered the basic shape, which was previously produced with great precision. The edges are rounded and details are no longer recognizable.

No. 109

The possibilities and associations of wax are similar to those of objects No. 22 and 38. However, beeswax has slightly different associations, as it is more likely to be associated with naturalness and candles. In the application here, there were slight deviations in the cover surface of the ring (due to process errors).

No. 122

Oil paint is normally used on a flat surface and not as a solid material. The object has rather bizarre properties - a yielding surface and is relatively flexible. When drying, it contracts a lot, which (together with the manufacturing process) provides for the textured surfaces. Detailed representations are almost impossible, and the basic shape is also strongly altered.

No. 121

The reproduction here is a by-product of mould construction. The object is not reproduced completely, but only leaves a surface trace in the material. The quasi two-dimensional representation is only an outline and hardly shows any details. The associations in terms of content are in the area of archaeology and the search for traces, even though the material forms a contrast to this.

No. 115

For this object, an artificial (digital) creation (cf. No. 11-19) was (re)produced from black glass. The appearance of the material is clearly misleading, as it cannot be identified as glass at first glance. The emotional associations with glass are usually fragility and transparency. In particular, the latter clearly can't be associated here.

No. 128

The silver casting here was made by vacuum (fine) casting, which normally allows for the highest level of detail (see No. 69). However, an excessive amount of borax was used in the process. This has burned itself into the surface of the silver during the casting process, thereby creating imperfections. The flaws are unpredictable.

No. 126

The material used here consists of two layers. The wood is stable and allows for quite a lot of detail to be reproduced. On top of it are numerous layers of paint, which are less stable and have partially broken away during processing, thus changing the shape of the object. Details are difficult to represent in this part of the material. The piece is strongly emotionally charged, as it contains a base material that carries years of memories of various students and study projects. The layers of paint were not created artificially, but came about through years of the objects use in the spray booth of the Hochschule Wismar.

No. 124

The ring made of buffalo horn has a slightly rough surface. With finer processing steps, it would also be feasible to depict three-dimensional details. The material has a natural character and is reminiscent of knife handles and jewellery (of indigenous peoples).

No. 131

The linoleum printing plate provides a two-dimensional representation of a three-dimensional object. Details are only possible to a limited extent. The association is clearly in the area of graphics.

No. 130

The Arduino in combination with the LED board is inspired by neon signs and light bulb strips around Times Square in New York. This display representation here requires an enormous simplification. Details are impossible.

The interesting thing is the transformation of a three-dimensional object, first into a code and then into the two-dimensional light dot display.

No. 129

The (re)production in stucco marble has process-related deviation errors. Incorrect application of the mixture has resulted in large gaps in the surface of the object during drying. Normally, detailed representations would be possible. In this application, they are not.

Stucco marble is an ecological alternative to polymer plaster (No. 34+35). In this case as well, the plaster is stabilized, but the mixture is much more environmentally friendly than polymer plaster.

The associations are (despite incorrect application) baroque stucco ceilings and columns.

No. 138

3D printed steel has a rough surface and looks like it has been roughly sandblasted. The technique allows quite a lot of detail to be produced, which, however, must not be too fine. The colour and material properties differ from cast steel.
Steel usually stands for durability and stability.
The digital manufacturing process is a reflection of modern technology.

No. 136

The glass bead embroidery is inspired by traditional (North American) indigenous clothing.
The two-dimensional representation of a three-dimensional object requires abstraction. Detailed representations are only possible in a highly abstracted way, and the basic shape is also slightly deformed.
The embroidery shown here is clearly poorly produced.

No. 133

Ironing beads are children's toys. The connection with professional use seems difficult.
The object is a quasi two-dimensional representation of what is actually a three-dimensional object. Due to the material, there are deviations in the basic shape. Details cannot be depicted at all or only in a highly abstract way.
The different structures in the surface (one side melted, the other not) have a certain charm.

No. 149

Kirei EchoPanels® are actually used as wall coverings. The object created here has slightly melted edges (due to the (re)production process). The outer shape is well reproduced. Any depiction of three-dimensional details would require abstraction.
The material is not clearly recognizable as a wall covering, but at first glance it appears to be like a solid felt from hobby supplies.

No. 146

The aluminium mould is originally a tool for creating plastic reproductions. Nevertheless, it is basically also a (re)production of the ring. It reproduces the negative of the object. Depicting details can be elaborate, but it is possible. The nature of the object is clearly technical and tool-like.

No. 143 - 144

The wooden rings were stored for months in a container with coffee grounds, sawdust and fungal spores in order to artificially age, or rot it. Both rings thematise transience and ageing processes.
One of the rings is only slightly damaged. On the other, a plant-like structure has formed, which seems to consist of sawdust, coffee grounds and fungus.
The latter is fragile and the shape of the ring seems to have almost completely disappeared.
Both rings smell of nature and coffee.

No. 155

The reproduction in Trio Mat shows strong deviation from the object shape. The object is more 2D and the direction of the textile changes the outer contour. Detailed representations are impossible. The object is reminiscent of a plucked stuffed toy.

No. 153

The (re)production using Westbroek concrete has sharp edges and is relatively detailed. The representation of textured details would be difficult, but (depending on the technique) possible. The association is clearly in the area of building materials.

No. 150

Corian® is a surface material made of acrylic resin mixed with natural materials. Among other things, it is often used for countertops. The object created here preserves parts of the imprint of the material sample used for the production of the object. This allows an association to be drawn with material samples and material libraries. Corian® itself is hard and (depending on the processing) also allows three-dimensional details to be reproduced. In the application here, a process error has caused one of the corners to break.

No. 166

The laser engraved sticker is in essence not a complete reproduction, but the accidental trace of the manufacturing process of another object. Nevertheless, it seemed to fit into the archive, as it captured the shape of the object almost by accident.

No. 165

The (re)production in tape is an accidental object created as a by-product of another object. This type of tape is usually associated with improvised repairs. The resulting object is a shadow, a silhouette. Details and three-dimensionality are impossible.

No. 156 - 164

Similar to No. 27 - 32, (re)productions in wood allow a certain level of detail to be achieved, depending on the type of wood and the technique and tools used for (re)production. The fineness of the surface details depends mostly on the type of wood, where in general, the harder the finer. Woods are usually associated with naturalness, whereby the respective type of wood can be related to the (historical) use and/or the geographical occurrence.

This publication wouldn't have been possible without
the great support of:

Prof. dr. David Huycke
Dr. Karen Wuytens

Bijzonder Onderzoeksfonds, BOF

Hasselt University, Faculty of Architecture and Arts,
Agoralaan, 3590 Diepenbeek, Belgium

PXL-MAD School of Arts, MANUFrACTURE Research
Group, Elfde-Liniestraat 25, 3500 Hasselt, Belgium

ORCID iD: 0000-0001-5480-5005

Furthermore, I would like to thank the following people for helping me finalize the project:

Ilse Van Roy from the PXL-MAD School of Arts for having the time and patience to introduce me to the different ways of working with glass and thereby paving the way for a number of new projects.

Tom De Weyer from the Makerspace @ PXL/UHasselt, for taking time to experiment.

Eric Geboers from Concr3de for printing two samples. (Shown here is No. 57.)

Wolfgang Dörk from the Hochschule Wismar, University of Applied Sciences Technology, Business and Design for donating the chair of the spray paint booth (No. 126).

Elliot Keeley from the Baltimore Jewelry Center for casting No. 128.

Karen Davidov and her husband, Henry Myerberg, for all the materials they sponsored. (For example shown here are No. 149, 150, 153, 155 and 166.)

Babette Wiezorek for making all the different printing tries. (Shown here is No. 78.)

Lina-Maria Köhn for taking the time to sew No. 39.

Anke Wessel, for figuring out how to crochet No. 55.

Madeli Viljoen for helping me with casting No. 92.

Frank Stüwe, for always being there, programming No. 130 and creating the renderings for No. 11, 13, 17 and 19.

Audi Pauwels and prof. dr. Bert Willems from the PXL-MAD School of Arts for their review of the text and correcting me wherever necessary.

Emily Hutchings for reviewing the introduction.

The renderings for object No. 11, 13, 17 and 19 were created by Frank Stüwe. All other pictures were taken by the author.

The physical version of this book was printed by Lipako Digitales Druck- und Kopierzentrum GmbH (Wismar, Germany) and hand-bound by Angela Bock (Wismar, Germany).

This study was supported by the Special Research Fund (BOF) of Hasselt University.
BOF number: BOF21DOC04.

