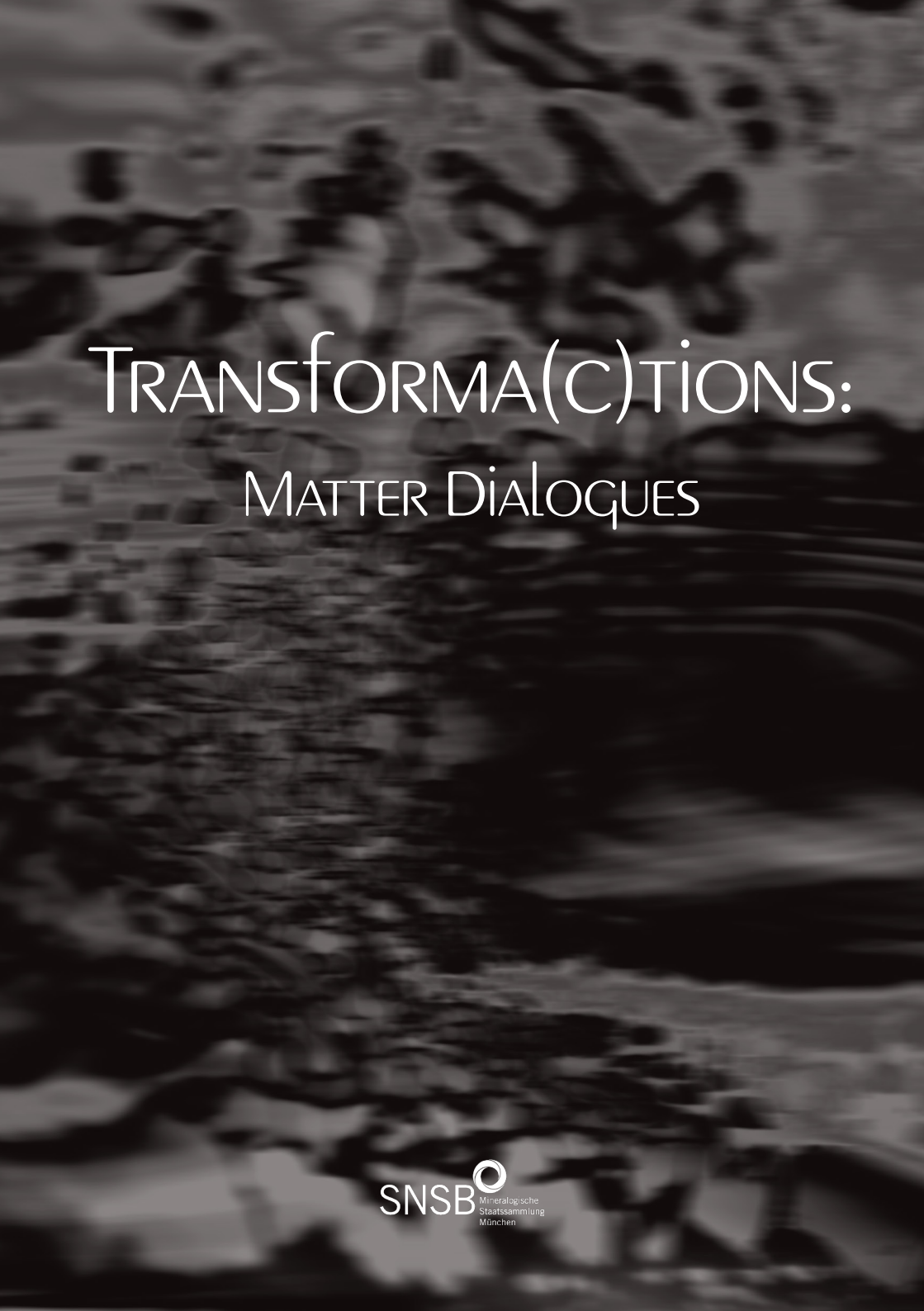


Transforma(c)tions:

Matter Dialogues

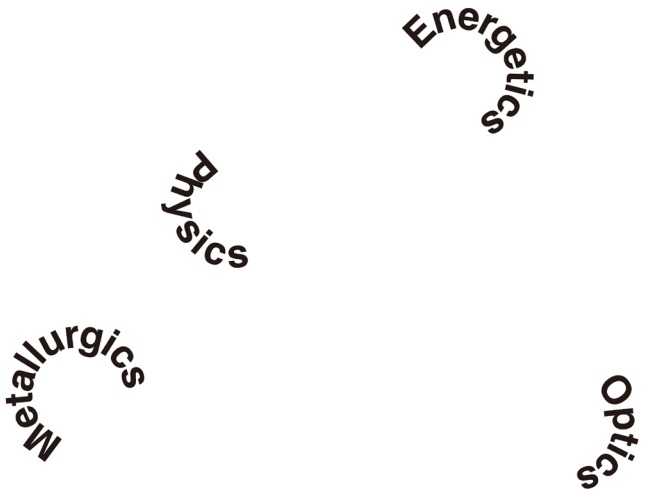
SNSB Mineralogische Staatssammlung München

Published by
Museum Mineralogia München
Theresienstraße 41
80333 München
Germany

First Published 2026.

TRANSFORMA(C)TIONS:
MATTER DIALOGUES

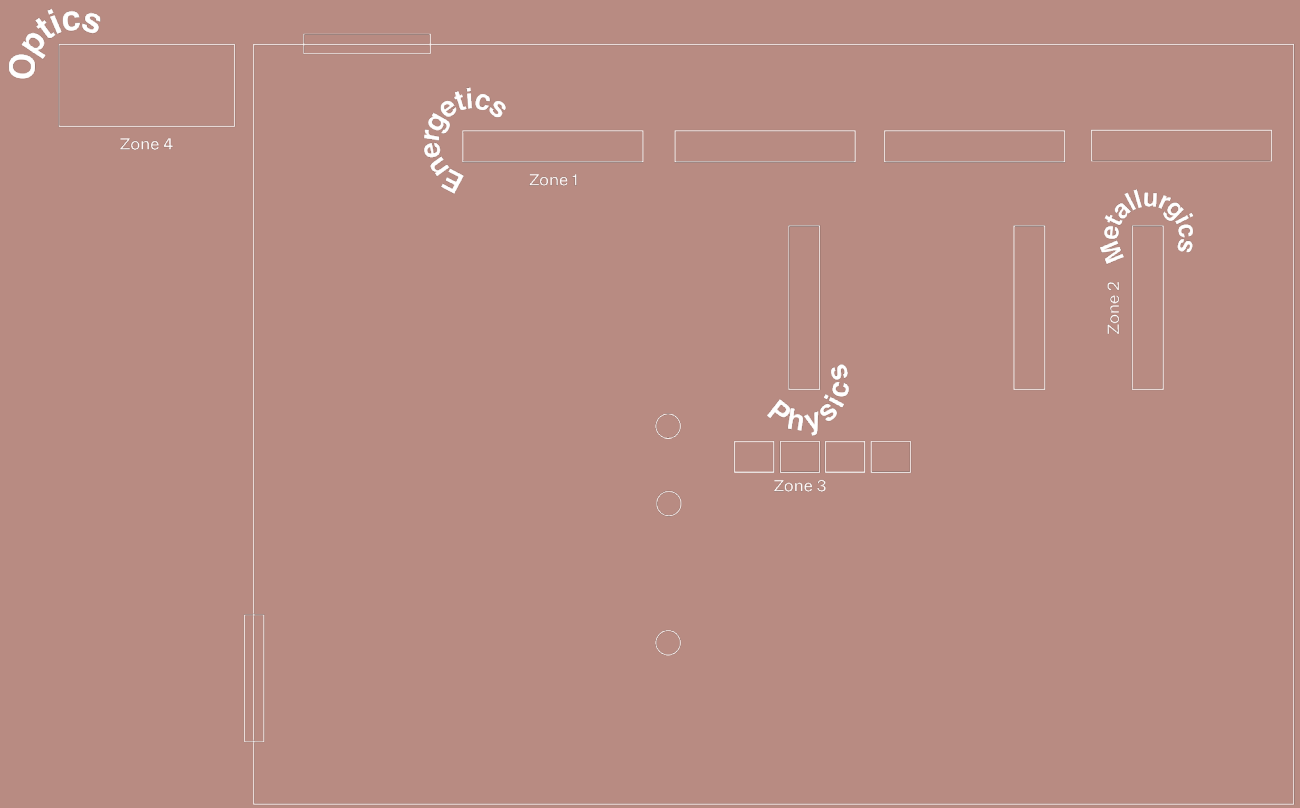
MUSEUM MINERALOGIA MÜNCHEN
Theresienstraße 41, Besuchereingang, 80333 München



20.02.2026 - 20.04.2026
Tue - Fri 12:00 - 16:00
Sat - Sun 13:00 - 17:00

Opening Event
20.02 17:30 - 20:00
06.03 17:30 - 20:00

THE GLASGOW SCHOOL OF ART
DRAWING THREADS
SNSB Mineralogische Staatssammlung München
UWE Bristol University of the West of England
C F P R Centre For Print Research



Catalogue Design and Layout by Otto (Yexi) Chow
ottochow.oc@gmail.com

Contents

Introduction

Transforma(c)tions:
Matter Dialogues

Minerals, are not inert, but vital and articulate. Shaped over time by elemental forces, they embody transformation. This exhibition approaches matter not solely as geological phenomena, but as vibrant agents that can provoke, inspire, influence, transform and direct creative processes. Between light and dark, solid and liquid, stable and unstable, matter operates as a mediator, forms through which meaning, symbolic, and metaphysical metamorphoses unfold. They speak in rhythms of transformation, growth, shimmer, and resistance.

The exhibition unfolds across four cabinets on the museum's ground floor. Each zone invites you to engage in a dialogue with matter focussing on light, form, growth, and energy, pairing mineral specimens from the collection with contemporary jewellery and metal work objects that respond, resonate, or interrupt. The show invites visitors into a multisensory dialogue between matter formations and their enacted contemporary artistic (re)interpretations.

Contact

helloyitong.z@gmail.com
yitongzhang.space

sofie.boons@uwe.ac.uk
www.neo-gemstones.com

Curators

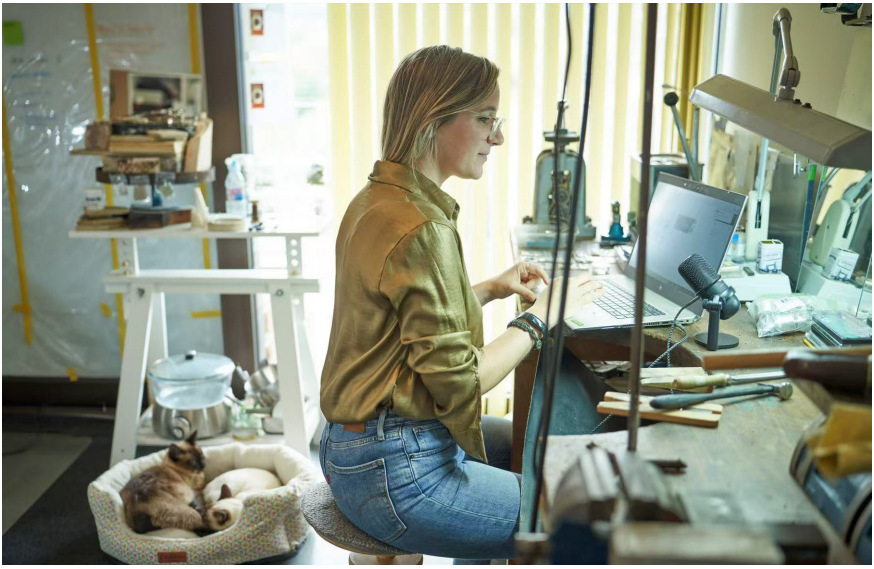
Yitong Zhang
Curator, PhD Researcher, GSA

Dr Sofie Boons
Curator, Senior Lecturer, UWE

Curators

Yitong Zhang is a multi-award-winning object maker, craft practitioner, researcher and poet in metal. Prior to pursuing her PhD at the Glasgow School of Art, Yitong graduated from the Royal College of Art in 2022 and the GSA with first-class honours in 2020, during which she also completed an academic exchange at the California College of the Arts. Yitong's artistic practice and research have developed internationally across exhibitions, curations, lectures, and symposia. In 2021, Yitong held a transdisciplinary exhibition in collaboration with 6 well-known Chinese poets, 'Jewellery is a Poem', in Beijing, which inspired her ongoing inquiry into how the forms and methodologies of poetry might inform the investigation into the poeticity of contemporary craft and metal language.

Curators



Dr Sofie Boons is a jeweller working as Senior Lecturer in Design Crafts at the University of the West of England (UWE Bristol). She recently completed a four-year Crafts Council Research Fellowship at the Centre for Print Research and completed her PhD titled 'Neo-gemstones: an Alchemical Jeweller's exploration of lab-grown crystals'. Sofie worked as the Head of Academy for the British Academy of Jewellery. After graduating from the Royal College of Art in 2013 she has continually exhibited her work internationally under the moniker 'The Alchemical Jeweller'.

Introduction

Museum Mineralogia

Museum Mineralogia München is the public-facing exhibition of the Bavarian State Collection for Mineralogy (Mineralogische Staatssammlung München), located in Munich's Kunstareal. Recognised as one of Germany's leading mineralogical collections, the institution combines curatorial stewardship with active public engagement in mineralogical and geoscientific knowledge. The permanent displays are arranged around the institute's large lecture hall and extend into the connecting corridors, introducing key mineralogical and crystallographic concepts through a clearly structured, didactic layout. Interactive experimental stations, models, and corresponding specimens guide visitors through crystal structure, symmetry, mineral optics, and crystal growth. Alongside the freely accessible showcase areas, the museum includes a dedicated exhibition room that hosts annual special exhibitions, and seasonally presents highlights such as gemstones, precious metals, and meteorites from the collection. Talks, guided tours, and education programmes for teachers, pupils, and students further connect the museum's research context with public learning. Dr Melanie Kaliwoda serves as Senior Conservator and Deputy Director, and the team supports both the long-term care of the collections and the mediation of mineralogical and geoscientific topics for diverse audiences.

Museum Mineralogia München Archive

This exhibition was shaped through the interwoven efforts of the museum team, held together by the steady leadership of Museum Director Dr Melanie Kaliwoda and Prof Dr Jahn Sandro, whose belief in the curatorial vision and careful oversight ensured the project's cohesion from conception to installation. Within this structure, Sima Akrami contributed a refined visual sensibility, shaping the selection and spatial arrangement of minerals and display elements.

Felix Hentschel lent the exhibition its architectural backbone, translating ideas into physical structures. Aliaksandra Rost deepened the exhibition's intellectual fabric through her precise and expansive archival work, revealing layers within the collection that informed its conceptual contours. And Olivia Rube brought practical ingenuity, resolving late-stage spatial and technical challenges with clarity and adaptability.

Exhibition Units

Zone 1
Energetics

Zone 2
Metallurgics

Zone 1

Energetics

In this zone the vitality of matter is investigated through function and force. Crystals are essential to modern technologies from semiconductors to timekeeping. Quartz generates an electric charge under mechanical stress, making it a cornerstone of modern electronics. Silicon is the backbone of modern computing, its crystalline structure enabling the flow and control of electrons that power our digital world. In this zone, crystals are not passive components, but explored as active collaborators of which energetic potentials can be reinterpreted beyond utility. Artists' works create a dialogue of how crystals shape our technological realities while inviting new narratives of energy, resonance, and transformation.

Artists

Lili Barglowska
Stephen Bottomley
Lin Cheung
Katharina Dettar
Marina Ito
Sydney Kendall
Adi Toch
Grace Wilson
Nicholas Yiannarakis

ZONE 1
ENERGETICS

Lili Barglowska
Petrified Wood Necklace, 2026
Arizona Petrified Wood, Steel, Silver
22x18x1.5cm

"Petrified Wood Necklace" is made from petrified wood from Arizona sourced along a road-trip across the USA in the summer of 2024, prior to the recent election. Driving through changing landscapes, all marked with the same political signage, my attention shifted away from the flags and towards materials which were indigenous to the land. Using petrified wood, I focused on the geological story of this material and carved the stone to resemble tree branches and reference the material's origin.

CONTACT
lbarglowska01@gmail.com

Mineral

38141

Versteinertes Holz

Dietmanns Waldviertel, Österreich

17 Avi I

1872,1 g

Mineralogische Staatssammlung München

ZONE 1

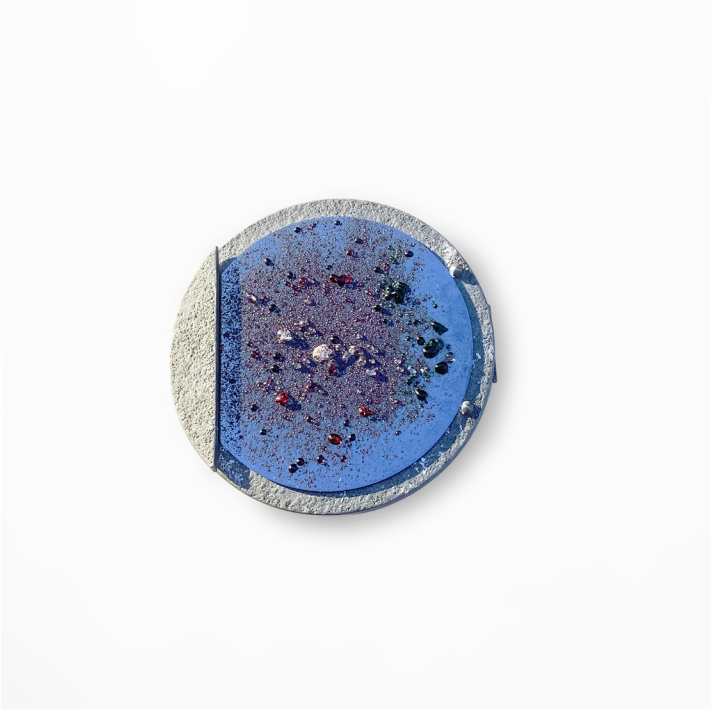
ENERGETICS

Stephen Bottomley
Colliders, 2026
Silicon, Enamel, Sintered Aluminium
6x6x0.7cm

The ***"Colliders"*** brooch reflects a moment of impact between heritage metalworking and modern Space Age synthetic materials and techniques. A silicon disc, scientifically grown in a laboratory for the electronics industry, is bombarded with particles of vitreous enamel and fired to 900 degrees Celsius. Vitreous enamel was invented for use with metal, not man-made silicon, where the fired particles fuse and bond, or resist and spring away, leaving the starry marks of their passage and flight.

CONTACT
s.bottomley@gsa.ac.uk
WEBSITE
https://klimt02.net/jewellers/stephen-bottomley

ZONE 1
ENERGETICS



Stephen Bottomley
Colliders, 2026
Silicon, Enamel, Sintered Aluminium
6x6x0.7cm

ZONE 1

ENERGETICS

Stephen Bottomley
Colliders, 2026
Silicon, Enamel, Sintered Aluminium
8.4x8.4xv0.7cm

Mineral

20116

Silizium: Si, synth.

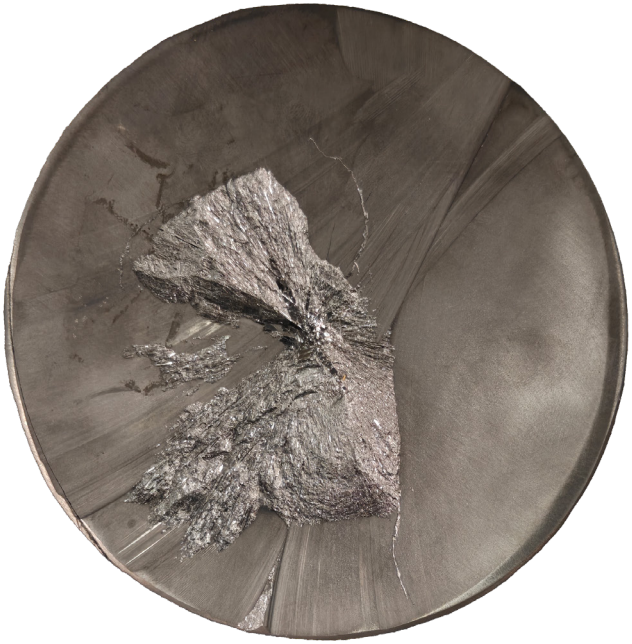
Geschenk d. Fa. Wackerchemie,
Burghausen, Obb. 3. 10. 1979

Inventar-Nr. 107/1979

aus 2/13

4075 g

Mineralogische Staatssammlung München



Zone 1

Energetics

Lin Cheung
Whole - Ring, Brooch, Earrings, 2026
Moissanite (lab-grown), Silver
Earrings 0.5x0.5x1.5cm
Brooch 3.7x0.4x0.4cm
Ring 2.5x2.5x0.4cm

Moissanite (silicon carbide) is a lab-grown alternative to diamond. It is 9.5 on the Mohs scale of hardness, a diamond being the hardest at 10. I was interested to explore the strength properties of moissanite using gemstone carving techniques rather than faceting to create whole pieces of jewellery entirely in one material. These jewellery studies are cut, carved and polished by hand to present alternative and uncharacteristic properties of moissanite as a whole piece of jewellery as opposed to a facetted gemstone that is more commonly set into a piece of jewellery.

Contact
l.cheung@csm.arts.ac.uk
Website
https://cargocollective.com/lincheung

Lab-grown Moissanite

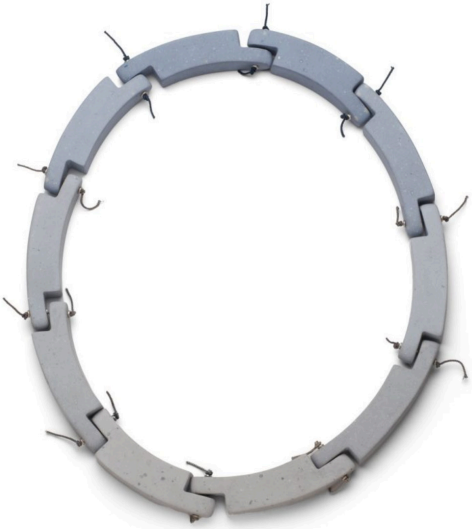
On loan from Lin Cheung (United Kingdom)

2026

Mineralogische Staatssammlung München

ZONE 1

ENERGETICS



Katharina Dettar
***Following Cennini,* 2026**
Lapis Lazuli Pigment, Lapis Lazuli Ash, Bio-resin, Silver, Silk Paracord
34.5x20x1.8cm

Adopting the 'nose-to-tail' approach in stone carving entails utilising and incorporating every conceivable part of the stone in the creative process, mirroring the philosophy of ensuring that every edible part of an animal is utilized and consumed, as opposed to solely relying on high-value cuts. This necklace is made following Cennino Cennini's 14th century recipe book that explains all the steps to extract Ultramarine pigment from the leftover dust collected from the water residue used to carve Lapis Lazuli stones.

CONTACT
katharinadettar@gmail.com
WEBSITE
www.katharinadettar.com

Mineral

29849

Lapis-Lazuli

Ovalle
Ovalle

Chile
20/6

606 g

Mineralogische Staatssammlung München

Marina Ito
Protect Bella!, **2025**
Lapis Lazuli, Tile, Waxed Cord
Hitodama pendant 1.3x2.6cm,
Bed 3x4.5cm

Taking inspiration from Japanese folklore, I hand carved a piece of Lapis Lazuli in the shape of a hitodama (human soul in the shape of a ball of fire) as a protection charm for Bella, a fellow classmate who has been in more extreme accidents than two hands can count. The ***"hitodama pendant"*** has a carved tile bed it fits into which is shaped to resemble an omamori (amulet). My wish is for it to serve as a reminder for Bella to protect her soul, and to give it proper rest at the end of the day!

CONTACT
marinauk@me.com

Mineral

4328

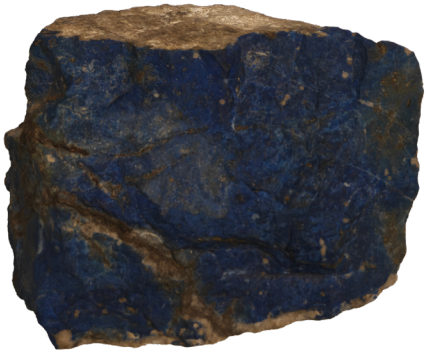
Lapis lazuli - Gestein aus
Lasurit

Pyrit
Calcit (Kalkstein)
von den Quarz-Lasern und Calcit, Andes de
Ovalle, Chile

Inventar-Nr.
aus 20/6

642 g

Mineralogische Staatssammlung München



Zone 1

Energetics

Sydney Kendall
***Signal Failure*, 2026**
Bronze, Quartz, Black Onyx, Topaz, Cubic Zirconia, Spinel, Garnet, Labradorite, Goldstone
3.2x0.6x4.35cm

This piece is a recreation of a broken television screen made with gemstones. The piece is meant to remind the wearer of a frustrating moment of electrical mishaps and make it beautiful.

Contact
syd.kendall@baj.ac.uk
Website
sydstudios.co.uk

MINERAL

Quarz (Bergkristall), Dauphinéer Zwilling, links drehend: SiO_2 20680

Baikalsee, Sibirien, UDSSR

Geschenk von Ulf Chr. Bauer, Rotmauerstr. Schliersee

Inventar-Nr. 17/1987
aus 7/24 151,824 g

Mineralogische Staatssammlung München

Zone 1
Energetics

Adi Toch
***On The Brink,* 2026**
Pewter, Mineral From A Cornish Tin Mine
11x11x10cm

"On The Brink" was developed in response to the Roman collection at Reading Museum and explores metal as earth-derived matter, entangled with stone through deep geological time. The work reflects on tin's significance in the development of ancient metallurgy and early alloying practices that transformed toolmaking and technological knowledge. A mineral specimen from a Cornish mine situates the work within a landscape shaped by mining and long-distance exchange. Metal and stone are approached as materials formed through compression, carrying geological memory alongside human intervention.

Contact
adi.toch@rca.ac.uk
Website
aditoch.com

MINERAL

1507

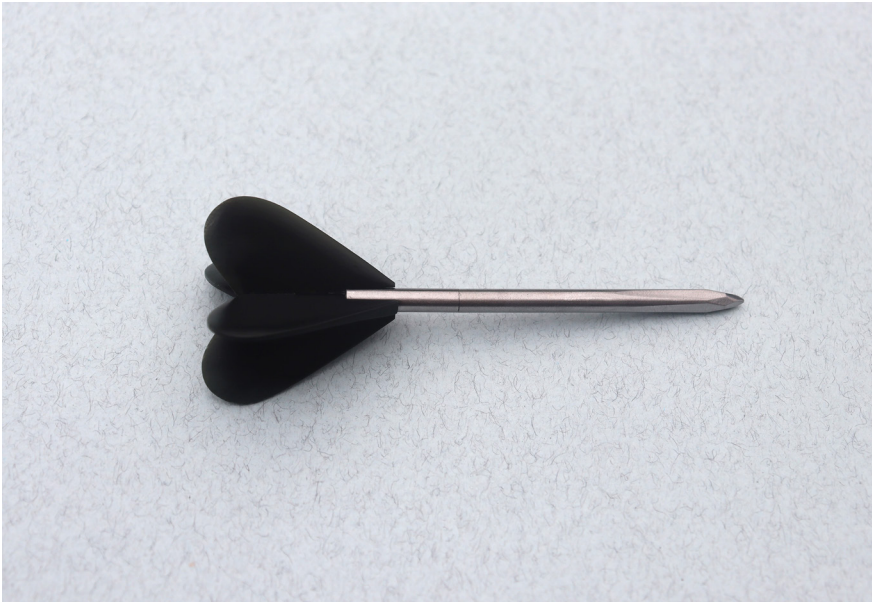
Quarz: SiO2
Zinnwaldit, Kassiterit

Zinnwald, Erzgeb.

Inventar-Nr. AV H 13 5/2
aus 7/17 340 gr

Mineralogische Staatssammlung München

ZONE 1
ENERGETICS



Grace Wilson
***On Target,* 2025**
Steel, Australian Nephrite Jade
10x3.5x3.5cm

This brooch reimagines a dart into a wearable piece of jewellery. Simple and playful, it explores the crossover between object and jewellery. Darts, a traditional pub game, are strongly associated with British social culture. The simple form emphasises the material qualities of the piece, highlighting texture, weight, colour, and the tactile presence of the object in relation to the body. The work also reflects a curiosity in material and craft.

CONTACT
graxe.wilson@gmail.com

Mineral

3818

Nephrit
= dichter Aktinolith

v.d. großen Platte (Alibert)
vom Fluß Anoté, Onot
Sibirien

Inventar-Nr. AV 141
aus 17/4 260 gr

Mineralogische Staatssammlung München

ZONE 1

ENERGETICS

Nicholas Yiannarakis
My Wand, 2026
Rock crystal, Labradorite, Sterling Silver
26x2.6cm

"My Wand" draws on the long-standing human tendency to attribute symbolic and transformative qualities to minerals. Formed from silver, a Lemurian quartz crystal, and Labradorite, the work references metaphysical narratives not as literal truths, but as expressions of human imagination and intention. Set at the upper end of the handle, the Labradorite marks a point of transition between the body and the crystal. As an imagined tool, the wand gestures toward the desire to ignite curiosity, creativity, and belief in potential, acknowledging how material stories shape meaning and transformation.

CONTACT
nicholas.yiannarakis@baj.ac.uk

Mineral

17946

L a b r a d o r i t mit 52% An
Hämatit Fe2O3 bzw.
Ilmenit FeTiO3
Nain, Südküste von Labrador, Canada
V. Krantz, Bonn (Kauf vom 18/7.
1958 vom Kronenverlag als Ersatz
für 1a/1962
~~Inventar-Nr. 1d/1962~~
aus 19/24 940 gr

Mineralogische Staatssammlung München

Zone 2

Metallurgics

Artist

Yitong Zhang

In this zone, transformation is continuous, occurring through the negotiations between rawness and refinement, solidity and fluidity, use and refusal, concealment and disclosure. These tensions emerge from both structuralist and phenomenological thought, converging into a quiet and formal reconciliation. The objects by **Yitong Zhang** are conceived not as metaphors for language, but as metalanguage. They explore how metal might structure its own discourses through rhythm, balance, form, and resonance. These works are neither representations nor objects for interpretation. They stand, murmur, and compose, being encountered on their own terms, allowing sensory-emotional experience to unfold in the viewers.

Contact
helloyitong.z@gmail.com
Website
yitongzhang.space

ZONE 2
METALLURGICS

Yitong Zhang
Untitled No.1, 2026
Gilding Metal, Sterling Silver
22.5x14x14cm

MINERAL

424

Calcit, Kupferkies,
Dolomit

Lürzenbach

Inventar-Nr. AV L-3.B
aus 3/6

533 gr

Mineralogische Staatssammlung München

ZONE 2
METALLURGICS

Yitong Zhang
Untitled No.3, 2026
Copper, Sterling Silver
12.5x12.5x10.5cm

Yitong Zhang
Untitled No.3, 2026
Copper, Sterling Silver
12.5x12.5x10.5cm

MINERAL

22058

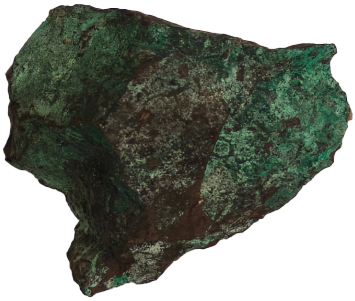
Germanit
Malachit

Tsumeb, Namibia

Inventar-Nr. Geschenk: Dr. R. Hochl.
3/11

62,95 g

Mineralogische Staatssammlung München



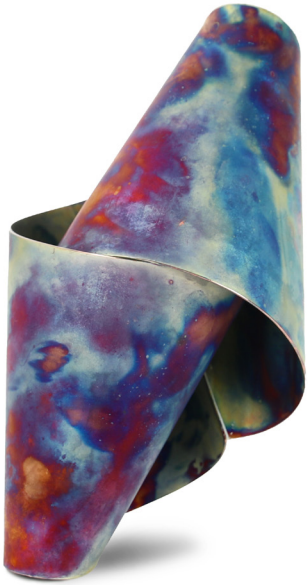
Yitong Zhang
Untitled No.2, 2026
Brass, Steel
7.5x2.8x16cm

26887

K u p f e r
ps. n. Aragonit
Anschliff und Dünnschliff
Corocoro, Bolivien
Geschenk Lieber 1999
siehe LAPIS 9/98
10,10 g

Mineralogische Staatssammlung München

ZONE 2
METALLURGICS



Yitong Zhang
Untitled No.5, 2026
Copper
16.5x8.8x8cm

MINERAL

31919

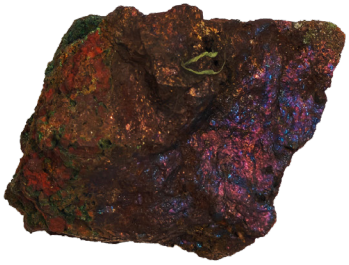
Chalkopyrit
Bornit

Gr. Neue Haardt
Weidenau

Deutschland
3/12

111.1 g

Mineralogische Staatssammlung München



ZONE 2
METALLURGICS

Yitong Zhang
Untitled No.4, 2026
Sterling Silver, Steel
23.5x17.5x6.8cm

Mineral

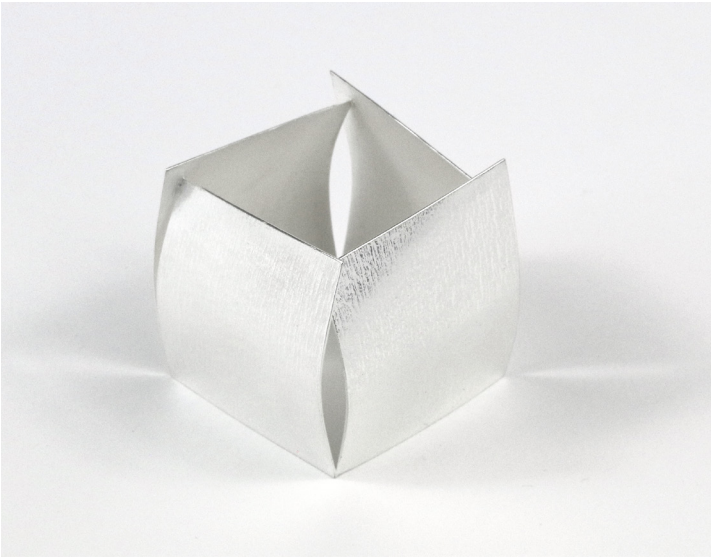
Gediegen Silber 96

Calcit

San Fernando, Chile

Inventar-Nr. AV 14/723 H
aus 1/12 56 gr

Mineralogische Staatssammlung München



Yitong Zhang
***06/04/2024*, 2024**
Sterling Silver
5x5x5cm

90

Ged. Silber, Ag 90
Quarz, Pyrargyrit

Chañarcillo, Chile
Inventar-Nr. AV 150(3)/1952
aus 1/12

101,5 gr

Mineralogische Staatssammlung München

ZONE 2
METALLURGICS

Yitong Zhang
***23/03/2024*, 2024**
Silver-Plated Copper
16x12.5x1.5cm

Mineral

38745

Silber

Freiberg, Sachsen, Deutschland

1/12

54, 11 g

Mineralogische Staatssammlung München

Yitong Zhang
16/05/2024, 2024
Copper
14.5x14.5x12.5cm

50090

K u p f e r

Coro Coro, Bolivien

RGB - Slg. Ladwig Nr. 3007

Inventar-Nr.
1/6

215,8 g

Mineralogische Staatssammlung München

Article I

"We live in the crystal age."
Dr Daniel Rytz, 2024

Crystals and minerals thread through our lives like unseen pulses, structuring the light we see, stabilising the time we trace, and performing below the threshold of our attention inside the technologies that frame our days. Yet long before they powered circuits or synchronised invisible networks, they captured our imaginations, shaping myths, adorning bodies, sparking bloodshed and provoking desires that travelled through centuries like the glints we consequently traced in geological seams.

The German Mineral Museum, with its 50,000 specimens, stands as a testament to this enduring fascination. It is a place where the earth's slow architectures are held up to the light. Here, minerals reveal themselves not as inert substances but as worlds built through pattern, pressure, and time. Single crystals, polycrystalline structures, and fragments of geological memory sit side-by-side, inviting us to look closely: to see how a lattice determines colour, how symmetry gives strength, and how the smallest scales influence the tangible world. They also quietly remind us how our fascination has resulted in vast displacements of such structures from the earth, by scraping, carving and blasting, sometimes reverently, sometimes carelessly, always with consequences that reach beyond the surface. Jewellers are those most entwined in this lineage of taking: inheritors of a practice built on unearthing, refining and redefining materials whose journeys begin long before they reach the bench, and whose transformations continue as they pass through human hands.

For the artists in this exhibition, attention to matter is not an abstraction but an evolving practice, one that moves beyond extraction toward attunement, reciprocity and, at times, a quiet form of atonement: a recognition of past takings that opens space for new ways of working toward relation, not command. A way of listening to what materials are, could be or may be. Whether grown deep in the earth or enabled into being in the studio, crystalline structures offer a choreography of possibilities. Through their refraction, resistance, melting, and shine, they guide the imagination and hand as much as the hand guides them. As Jane Bennett writes: materials possess "a curious ability to animate, to act, to produce effects" and jewellers learn, through touch, repetition and engagement to recognise, challenge or coax this liveliness. This exhibition

leans into that liveliness. It traces how artists work with and are influenced by minerals. Karen Barad reminds us that we do not stand apart from the world we study; we meet it in a constant exchange, an intra-action, where touching transforms both the toucher and the touched. Jewellery, in this sense, becomes not just an object but a site of encounter: a place where geological time brushes against human time experience and understanding.

The story of human entanglement with minerals is long and full of invention. Over centuries, people learned to interpret crystal structures, to emulate them, to grow them, and ultimately to rely on them for the functioning of modern life. Yet despite this technological omnipresence, crystals retain an aura, something that exceeds explanation. Even now, they carry both the precision of science and the mystery of formation. Transforma(c)tions embraces this duality. Moving between the natural and the man-made, the geological and the artistic, the ancient and the ultramodern. It positions materials not as passive carriers of human intention but as collaborators in the act of making. Artists respond to the shifting contexts in which minerals exist today, ecological, industrial, ethical, political, and use their practices to question how value is assigned, how materials are categorised, and how our perceptions shape what we believe to be important.

The works assembled here each carry a conversation: between minerality and imagination, between the solidity of matter and the mutability of meaning. They remind us that materials are not static. They grow, erode, crystallise, sublimate; they form and transform. They travel across scales and systems, across deep time and market logic, across laboratories, landscapes, and jewellery benches.

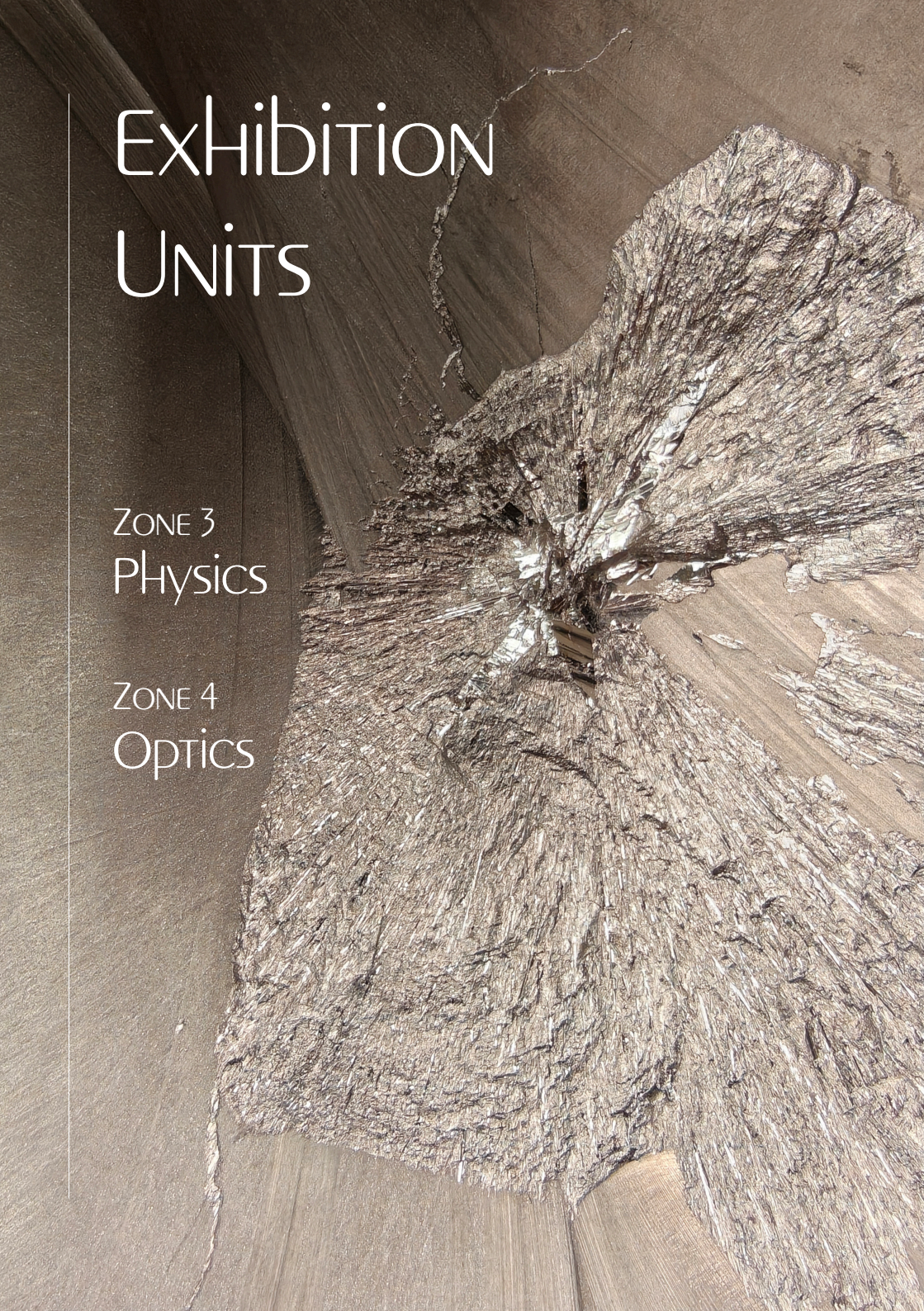
To stand among them can lead to a tumbling into another world while remaining utterly intertwined with the present. Crystals, after all, are not simply things we look at. They are structures we live with. Structures we depend on. Structures that shape us, even as we attempt to shape them. Through this exhibition, we hope to extend that diffraction outward, allowing the materials' shifts, glimmers and resistances to ripple into the perceptions of those who meet them again, so that the audience too, may tune in to the frequency uncovered in the encounter. Enjoy.

Dr Sofie Boons
Curator, Senior Lecturer, UWE

Exhibition Units

Zone 3
Physics

Zone 4
Optics



Zone 3
Physics

Artist
Dr Sofie Boons

Physics is the domain of forces, growth, and emergence. In this zone, transformation is not metaphorical, it is literal, observable, and alive. Using low-temperature, low-pressure techniques, crystals grow molecule by molecule, a process **Dr Sofie Boons** has adopted as an artistic method. Here crystals are co-creators, forming within metal structures. Natural facets are celebrated as unique features, while spontaneous nucleation reveals how crystals respond to, grow around, and emerge from metal forms. This is matter in motion, where physics meets aesthetics.

Contact
sofie.boons@uwe.ac.uk
Website
www.neo-gemstones.com
www.sofieboons.com

ZONE 3
PHysics

Sofie Boons
***Polycrystalline,* 2024**
Platinum, Ruby Grown In-situ
1.9x2.2x0.65cm

Designed as a stage for multiple seed crystals to grow simultaneously, the platinum structure offers a deliberate contrast to the wildness of mineral formation. Geometry and organic growth negotiate their shared territory, revealing the complex choreography behind polycrystalline emergence.

Mineral

374

Rubinblende

Ems, Nassau

Inventar-Nr. AV 231/53
aus 3/1

925 gr

Mineralogische Staatssammlung München

ZONE 3
PHysics

Sofie Boons
***Growth#1,* 2026**
Platinum, Ruby Grown In-situ
1.9x2.3x0.6cm

Generally, gemstones are incorporated in designs by setting. For this piece a seed, created from ruby waste material was grown to set itself into the platinum ring. Growing a stone in-situ in the design enables the jewellery artist opportunities to re-imagine how stones could be incorporated and fixed into their pieces.

Mineral

5003

Rubin-Kristall
Al_2O_3

Madagaskar

Inventar-Nr. 170/1967
aus 7/4

14.1 gr
17,5 gr
14,5 gr

Mineralogische Staatssammlung München

ZONE 3
PHysics

Sofie Boons
***Hooked,* 2026**
Platinum, Sapphire Grown Around Wire
2.8x3.5x0.8cm

Two half-round sapphire seeds were coaxed into growth around platinum hoops, expanding the idea of setting-by-growth to a larger, wearable format. The resulting forms reveal shifting directions, shimmering edges, and the stone's persistent inclination to return to its natural crystalline order.

1306

Korund: Al2O3 in Albit mit
kleinen Einschlüssen

östl. Teil von Ontario,
Canada, Nordamerika

Inventar-Nr. 132/1952 AV. 434
aus 7/3

121,678 gr

Mineralogische Staatssammlung München

ZONE 3
PHysics

Sofie Boons
***Outgrown,* 2024**
Platinum, Ruby Grown In-situ
1.9x2.6x0.6cm

A gemstone here refuses containment, extending itself beyond the limits of its intended home. In working with growth rather than cutting, the outcome cannot be known in advance. Facets appear according to the crystal's own internal logic, making each grown-in-place stone a negotiation with uncertainty and the agency of the material itself.

Synth. Korund
sog. "Kunzit"

20118
20119

Geschenk d. Firma Djeva hirdjian,
Monthey, Schweiz

Inventar-Nr. 69/1979 70/1979
aus 7/2

1,2308 g
1,278 g

Mineralogische Staatssammlung München

ZONE 3
PHysics

Sofie Boons
Outgrown#2, 2026
Platinum, Ruby Grown In-situ
1.9x2.5x1.2cm

Outlined like a traditional solitaire yet fundamentally unconventional, the platinum form hosts a ruby grown directly into its hollow centre. What emerges is shaped not by cutting but by the mineral's own hexagonal rhythm, the geometry rubies naturally choose for themselves.

5240

Granat
Müller

Inventar-Nr. 26/1974
7/2

89,158 g

Mineralogische Staatssammlung München

ZONE 3
PHysics

Sofie Boons
***Cross,* 2026**
Platinum, Sapphire/Ruby
2.2x2.8x2.2cm

When stones are grown in situ, the act of setting can be completely re-imagined. Here, crystals have anchored themselves within a sequence of cavities, following a deliberate linear rhythm. The pattern appears organised, yet the attachment arises through natural growth alone, an elegant negotiation between intention and material behaviour.

Mineral

22058

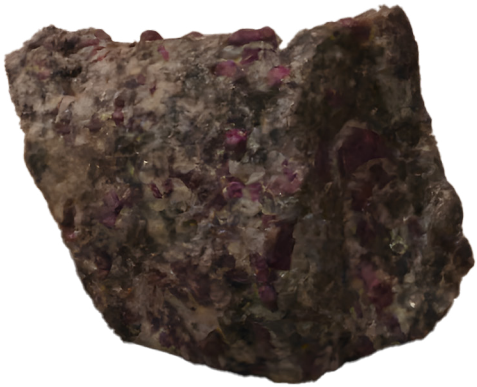
Germanit
Malachit

Tsumeb, Namibia

Inventar-Nr. Geschenk: Dr. R. Hochl. 3/11

62,93 g

Mineralogische Staatssammlung München



Zone 4

Optics

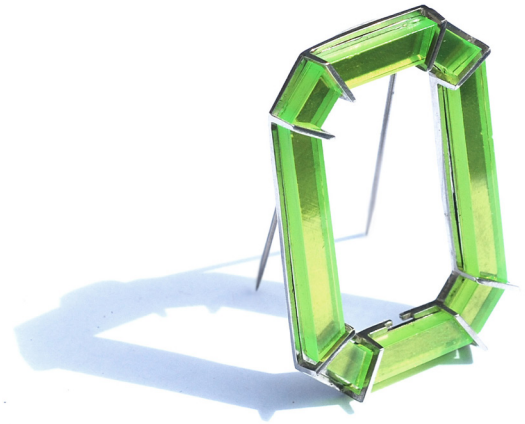
Artists

Natalie Asher-Martin
Sofie Boons
Naima Cheniya
Veronika Dika
Veroni Dimitrov
Anastasia Kan
Emily Murphy
Rozana Piper
Rebecca Prenga
Lily Straker

In this zone, matter reveals itself through light, its presence, absence, and persistence, emerging as a period of visibility, a flash, a shimmer, a slow afterglow. In nature, Fluorescence describes the phenomenon where certain minerals absorb ultraviolet light and immediately emit visible light, creating a vivid glow that vanishes when the light source is removed; phosphorescent crystals continue to glow even after the source fades, releasing stored energy over time. The engineered crystals created by BREVALOR extend this phenomenon, enabling makers to sculpt with light. In this showcase of the work by BAJ students, Sofie Boons and Brevalor, light becomes duration, and matter asserts a time-based vitality. Light reveals how matter speaks: the minerals absorb, hold, and respond, as active agents participating in perception, allowing light to become part of their life and temporal dimension.

ZONE 4

Optics

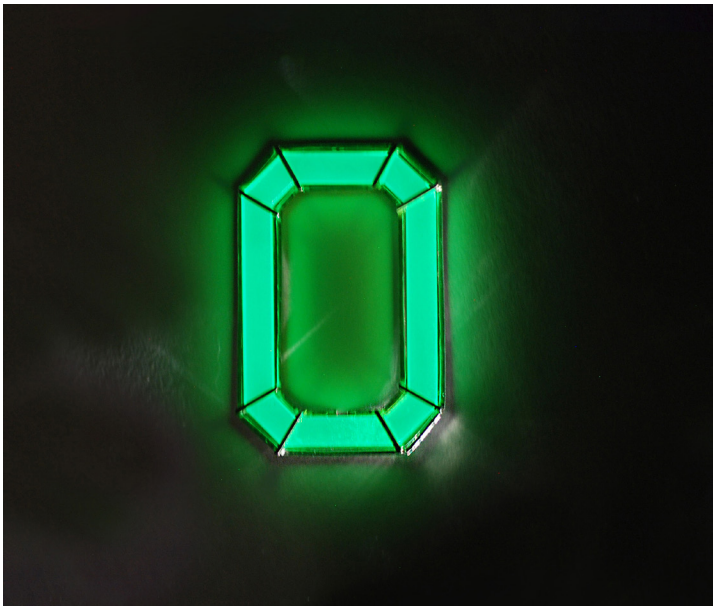


Sofie Boons
***Octagon,* 2024**
BRG, Silver, Steel
4.2x2.8x0.6cm

Working with BRG and BRB means sculpting not only matter, but light itself. In darkness, their boundaries soften, and reflections extend the material beyond its physical edges. This piece, composed of eight BRG elements arranged to suggest an emerald cut, relies on light to complete the form, revealing a gemstone's presence that appears to exist beyond its tangible surface.

CONTACT
sofie.boons@uwe.ac.uk
WEBSITE
www.sofieboons.com

ZONE 4
Optics



Sofie Boons
***Octagon,* 2024**
BRG, Silver, Steel
4.2x2.8x0.6cm

Green Boule

Raw crystals of Eu,Dy:SrAl2O4

On loan from BREVALOR (Switzerland)

2x2x5cm

Mineralogische Staatssammlung München

ZONE 4

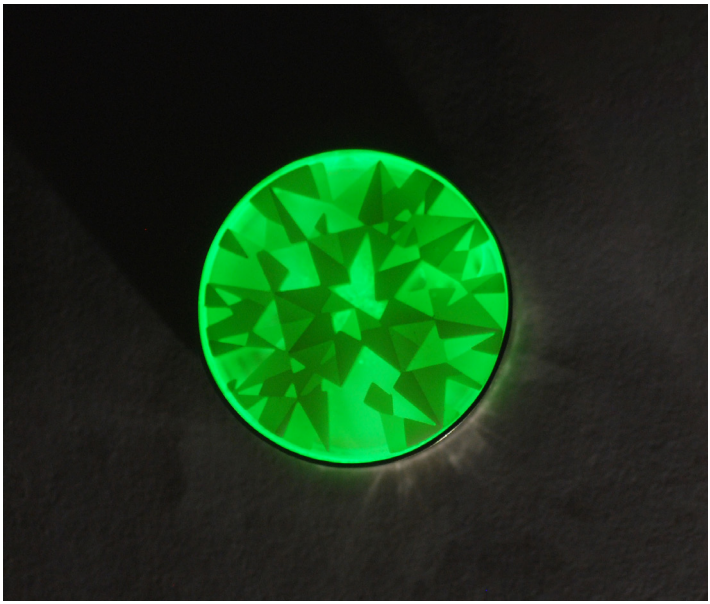
Optics

Sofie Boons
***Cameo,* 2024**
BRG, Silver, Steel, White Compound
3.6x3.6x1cm

This piece explores how BRG can transmit light through other materials. A translucent heightmap sits above a BRG layer, mimicking the light play of a brilliant cut. Thicker areas block more light, while thinner ones allow it to pass, creating an optical illusion visible only in darkness, where light sculpts the form beyond its physical boundaries.

CONTACT
sofie.boons@uwe.ac.uk
WEBSITE
www.sofieboons.com

ZONE 4
Optics



Sofie Boons
Cameo, 2024
BRG, Silver, Steel, White Compound
3.6x3.6x1cm

ZONE 4
Optics

BREVALOR
Raw crystals of Eu,Dy:SrAl2O4
2x2x5cm

Sofie Boons
Octagon, 2024
BRG, Silver, Steel
4.2x2.8x0.6cm

BREVALOR
Raw crystals of Eu,Dy:SrAl2O4
2x2x5.5cm

BREVALOR
Polished plate of Eu,Dy:SrAl2O4
0.9x0.9x0.1cm
BRG Gemstone
1.3x0.9cm

BREVALOR
Polished plate of Eu,Nd:CaAl2O4
2.5x2x0.05cm
Polished Prism Eu,Dy:SrAl2O4
0.7x0.7x0.3cm

BREVALOR
BRB Stone
2.5x2.6x4.7cm
Polished Plate
2.5x2x0.05cm

BREVALOR
Parrot Head
Eu,Dy:SrAl2O4, Mother-of-pearl
1.7x1.7x0.7cm

Sofie Boons
Cameo, 2024
BRG, Silver, Steel, White Compound
3.6x3.6x1cm

BREVALOR
Carved ornament of Eu,Dy:SrAl2O4
1.8x1.4x0.7cm

Blue Boule

Raw crystal of Eu,Nd:CaAl2O4

On loan from BREVALOR (Switzerland)

2x2x5cm

Mineralogische Staatssammlung München

ZONE 4

Optics

Natalie Asher-Martin
***The Lumen Gate,* 2025**
Oxidised Silver, Opal Stones, BRG Stone
3.3x2.3x1.5cm

Crafted from sterling silver and set with three oval moonstones encircling a BRG Luminous gemstone. Inspired by the mesmerising motion of zoetropes, the central stone casts its light through the surrounding moonstones and outward through the fretted sides, projecting soft orbs and star-like patterns onto nearby surfaces. I used liver of sulphur to oxidise the silver, creating a striking contrast that enhances the stones' radiant glow. The design aims to evoke a sense of quiet wonder, inviting the viewer to experience light, movement, and shadow as shifting, momentary traces of magic.

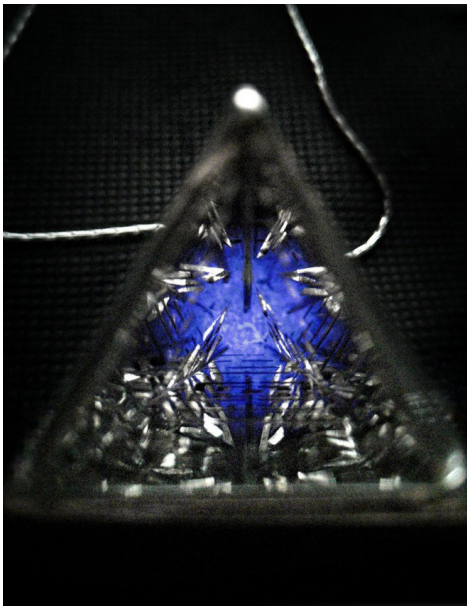
ZONE 4

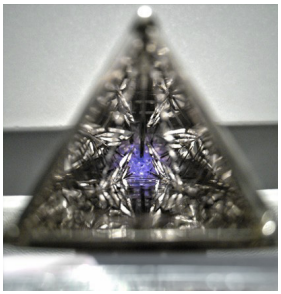
Optics

Naima Cheniya
***Shadows Fade in a Glowing Embrace,* 2025**
Silver, BRG Stone
2.5x2.6x4.7cm

This ring embodies the belief that a guiding light is always present, even in our darkest moments. The BRG stone is held within a cave-inspired setting, capturing the feeling of stepping through difficulty while trusting that brightness still exists ahead. The design reflects how, even when we feel shrouded by shadows, a small glow will appear, growing stronger the further we move towards it. It symbolises resilience, clarity, and the quiet inner faith that no struggle is without direction. Wearing it is a reminder that no matter what we are going through, light and hope are always within our reach.

ZONE 4
Optics





Veronika Dika
Kaleidoscope 'Luminary vision', **2025**
925 Sterling Silver, BRB Stone
2.7x2.4x6cm

This piece invites a journey of personal exploration, as only the wearer can engage with its intricate play of light and colour, revealing hidden beauty. Inspired by the delicate choreography of light refraction within a kaleidoscope, it evokes moments of clarity and insight that illuminate our lives.

The ***"kaleidoscope"*** symbolises the ever-changing nature of human experience.

Just as each pattern is unique, so are our identities, shifting and evolving in different lights and environments. Through this pendant, I aim to encourage a deeper connection to one's own journey, celebrating the beauty of change and the infinite potential within us all.

ZONE 4
Optics

Veroni Dimitrov
Celestial Alignment, 2025
Silver, BRG Stone
2.77x3.25x2cm

This conceptual design explores the unseen forces and rare alignment that govern the formation of a solar eclipse. Formed from two interlocking rings, the Sun and the Moon. Together they symbolise balance, transformation and a fleeting moment in the cycle of time.

A polished and oxidised silver finish surrounds a gemstone that glows after sunlight exposure, it illuminates like an eclipse seen from Earth.

The piece invites viewers to reflect on duality, connection and perspective. The subtle movement and luminescent properties of the stone are a reminder of the natural and timeless relationship between light and darkness.

ZONE 4
Optics

Anastasia Kan
Memento Mori (remember you'll die), 2025
Brass, BRG Stone
1.9x2.9x1.9cm

The phrase ***"Memento Mori"*** was inspired by the rhythmic lights from an apartment building in Hong Kong. The lights follow the disparate rhythms of lives lived all around the world. This contrast highlights the realisation of how fundamentally singular one's own experience truly is. The BRG stone representing the individual, lies close-mindedly covered by their own narrow view of the world. Opening the ring's lid exposes this truth.

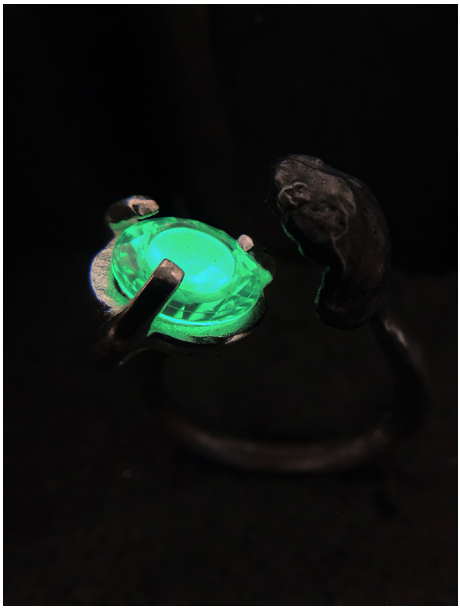
ZONE 4
Optics

Emily Murphy
Held in Silence, 2025
Brass, Fishing Wire, BRG Stone
9.7x2.6x1.5cm

This interactive mouthpiece captures the unspoken connection between two people. When both participants blow into the piece, a Brevalor glow in the dark gemstone emerges as a luminous symbol of shared emotion, thought, or desire that exists in the quiet space between them. The act of exhaling together transforms breath into light, making visible what is usually invisible: the tension, intimacy, and vulnerability of unspoken communication. The piece invites reflection on how feelings are exchanged without words, illuminating the delicate boundaries of expression and restraint between what is felt and what remains unsaid.

ZONE 4

Optics



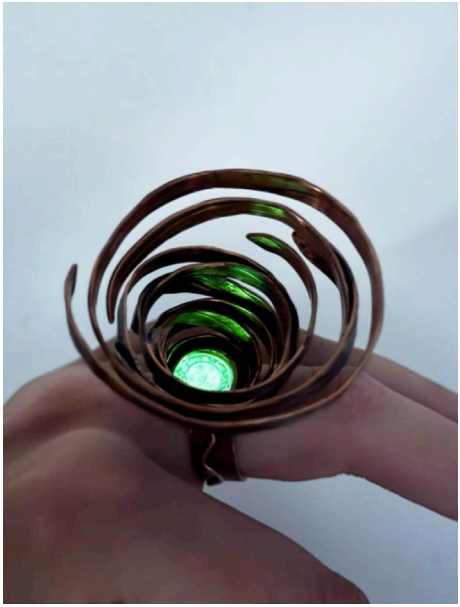
Rozana Piper
Glow in the Shadow Ring, 2025
Oxidised silver, BRG Stone
1.5x2x3.3cm

Light lives in motion here. Oxidised silver rises and shifts around a green glow, letting the light appear for a moment before shadow moves over it again. As the viewer walks around the piece, the ring changes what it shows, a soft shine, a sudden flash, or a small eclipse.

In the hand, it becomes a quiet reminder that light isn't constant. It hides, returns, and reveals itself depending on how we choose to look.

ZONE 4

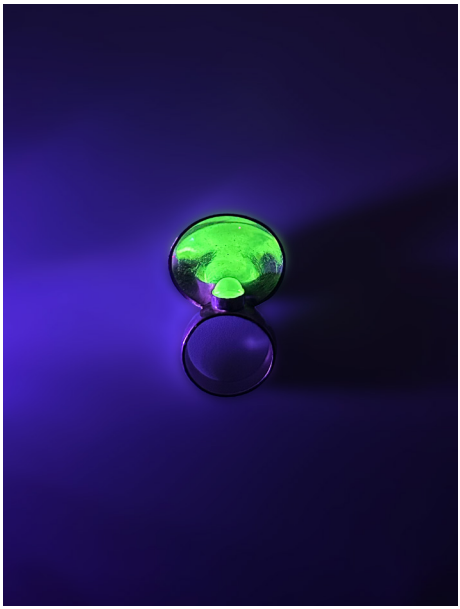
Optics



Rebecca Prenga
***The Spark of Life,* 2025**
Copper, BRG Stone
6.5x4.2x4.2cm

This handmade ring serves as a personal interpretation of creation, a reminder of the endless galaxies that formed when the universe begun. I chose copper metal for its warm, earthy hue resembling the delicate balance between nature and the planets. The intertwined bands of metal spiral outward, symbolising the grand expansion of the Big Bang. At the heart of the ring lies BRG stone whose complementary green glow appears as the first burst of energy that ignited particles into motion, like a miniature explosion radiating light and physical matter into the cosmos.

ZONE 4
Optics



Lily Straker
GLOW, 2025
Copper, Silver, Brass, BRG Stone
4x2.5x0.5cm

"Glow" explores the dynamic relationship between material, light, and perception. Using BRG stone as a central element, the work integrates reflective metal surfaces—copper, silver, and brass—to actively capture and redirect surrounding light. Rather than treating illumination as external, the piece is conceived as a system that amplifies and modulates brightness from within its environment. Inspired by photographic reflectors, the metal components are positioned to intensify luminosity and create shifting highlights as the body moves. The work investigates how reflection can transform a material's presence, allowing light to become both medium and subject, revealing subtle variations in colour, depth, and surface.

Article II

Dr Daniel Rytz
Founder of BREVALOR

The impulse to grow gemstones rather than mine them is older than modern chemistry, but Auguste Verneuil's flame-fusion invention at the turn of the 20th century is widely considered the catalyst for making lab-grown corundum (ruby and sapphire) available at a large scale and setting industrial crystal growth in motion. Later developments built on this foundation, including Czochralski pulling, flux growth and hydrothermal synthesis, which together expanded the palette of lab-grown crystals available to science and design.

An interest in glowing materials stretches back even further. In 1603, the so called Bologna stone, originally a piece of baryte calcined to produce barium sulfide, was observed to glow in darkness after exposure to light. Its mechanism remained mysterious until 2012, when researchers identified Cu^{+}-related emission and clarified the trap structure, explaining its persistent luminesence. This historic material foreshadowed the same trap and release mechanisms that define modern persistent luminescence crystals.

In the nineteenth century, interest in self-luminous materials resurfaced with the development of Théodore Sidot's "blende," a zinc sulfide

compound first described in 1866. Its bright afterglow captured scientific imagination, and by 1893 it had attracted the attention of Nikola Tesla, who investigated its luminescent behaviour in his experiments on light and phosphorescence. Although far less efficient than today's aluminates, ZnS became one of the earliest deliberately engineered glow materials and established the foundation for later research on phosphorescence.

A much darker chapter in the history of glow in the dark materials emerged in the early twentieth century with the use of radium based luminous paint. From around 1917, young women employed as dial painters unknowingly ingested radioactive radium as they were instructed to sharpen their brushes between their lips while painting watch and instrument dials. Their clothes, skin and hair glowed softly after work, earning them the nickname "ghost girls," but the consequences were devastating: many suffered anemia, bone necrosis and the infamous "radium jaw," ultimately leading to landmark legal cases that transformed workplace safety legislation.

A later but significant milestone in safe glow-in-the-dark materials arrived in 1962, when researchers reported luminescence in europium-activated strontium aluminate, indicating that alkaline-earth aluminates were promising platforms for long-lasting luminescence long before large-scale industrial applications emerged. A major shift in glow-in-the-dark materials then occurred in the 1990s with the emergence of europium-doped alkaline-earth aluminates such as strontium aluminate activated with Eu and Dy. Known commercially as LumiNova, these materials were significantly brighter and longer lasting than earlier zinc-sulfide pigments, enabling robust emergency signage and many safety applications. These europium- and dysprosium-doped aluminates were developed in powder form by NEMOTO in the early 1990s and marketed as LumiNova, offering unprecedented brightness and afterglow performance. However, the more ambitious challenge remained: to grow these phosphorescent compounds as transparent single crystals that could function as gemstones.

This challenge has been addressed by BREVALOR, co founded by physicist and crystal growth specialist Dr Daniel Rytz. Drawing on decades of experience with optical

and piezoelectric crystals, Rytz and collaborators succeeded in growing bulk single crystals of strontium and calcium aluminate doped with europium and co dopants such as dysprosium or neodymium. In 2013, BREVALOR reported the first bulk single crystals of $SrAl_2O_4$ and $CaAl_2O_4$, marking a significant technical advance.

For jewellery, the leap from pigment to crystal is more than technical, it is aesthetic and cultural. In her doctoral research, Dr Sofie Boons argued for reframing "lab-grown" crystals through the lens of Neo-gemstones®, documenting her ongoing collaboration with BREVALOR that transformed aluminate off-cuts and experimental boules into faceted gems and inlays whose day-to-night identities literally carry light within. Together with Boons, BREVALOR has been working on determining criteria for crystal shapes and designs that emphasise targeted optical effects, exploring how cut, orientation, material thickness and metal architecture can be used to amplify charging and emission behaviours.
The phosphorescent crystals presented in this exhibition offer design possibilities that no natural gemstone can replicate. Their glow originates throughout the entire volume of the crystal rather than only at the surface. As a result, carved, faceted or laminated pieces emit a soft and persistent light after only brief exposure to an excitation source of light from the sun or LED sources. The objects on display include raw boules grown by the Czochralski technique approximately 20 mm in diameter, polished plates, cabochons, faceted settings with inlays and expressive carvings.
As the exhibition lighting cycles between bright and dark, each piece reveals a changing identity shaped by material composition and geometry.

With BRG (green) and BRB (blue) glow-in-the-dark gemstone shapes now established, they are to be tested by jewellery designers. The exhibition features a selection of pieces created through the recent collaboration between BREVALOR and students of the British Academy of Jewellery (BAJ). As part of the Glow project, students were given access to BREVALOR's transparent, glow-in-the-dark strontium aluminate or calcium illuminate gemstones and invited to explore how their persistent luminescence could be integrated into contemporary jewellery design. Working under the guidance of Dr Boons and BAJ tutors, the students developed concept research, renders and final pieces that highlight the unique

behaviour of these crystals, experimenting with settings and forms that emphasise the transfer, capture and release of light. The project offered a rare opportunity for emerging designers to work directly with a newly developed gem material, testing its aesthetic and technical potential within wearable formats.

If the Bologna stone was an alchemical wonder and LumiNova a pigment revolution, phosphorescent crystals are a designer's instrument: light harvested, stored and sculpted from within the gem. Across history, phosphorescent materials have moved from curiosity to industrial pigment and now to expressive gemstone. Looking ahead, BREVALOR is committed to deepening the scientific understanding of persistent luminescence, working with researchers to investigate origins, loss mechanisms and efficiency limits, while also developing new emitted colours and expanding the palette of optical behaviours. In parallel, ongoing work explores incorporating phosphorescent crystals and crystallites into composite materials, combining active and passive components to create hybrid structures with novel functional and aesthetic potential. In the context of Transforma(c)tions they invite viewers to reconsider light as an active material. These crystals suggest a future in which jewellery acts as a vessel for light, collecting it by day and returning it to the world with living presence.

Notes on terminology: Throughout this text we use "persistent luminescence" (often colloquially called phosphorescence) to emphasise the trap-mediated storage and thermal release of excitation energy in crystalline hosts.

Dr Daniel Rytz
Founder of BREVALOR

Dr Sofie Boons
Curator, Senior Lecturer, UWE

Institution

Institution

Drawing Threads

Expanding Craft: The Art and Science of Material Selection

Drawing Threads is a research cluster at the Glasgow School of Art, originating among colleagues from Textile Design and Silversmithing & Jewellery in 2022, two of the oldest subject disciplines since the creation of the Glasgow Government School of Design in 1845.

Pulling on shared threads of interest, the group formed to extend the boundaries of our existing studio-based practices and explore how distinct disciplines can bring a new understanding from a shared material craft heritage. The research group has grown to include historians and doctoral researchers from around the world. We share our interdisciplinary approaches to develop material enquiry and technologies that can extend our practice.

Transforma(c)tions: Matter Dialogues, co-curated by cluster member and doctoral researcher Yitong Zhang in partnership with Dr. Sofie Boons, Senior Lecturer in Design Crafts at the University of the West of England, is our second exhibition in Germany.

The cluster's inaugural exhibition, Re-inSpired, was displayed in the Museum Mineralogia München during Munich Jewellery Week (MJW) 2025. The show presented designs made from donated sheets of recycled anodised Aluminium metal cladding, salvaged during the

Drawing Threads

restoration of the sculptural spire, known as the 'Crown of Thorns', designed in 1964 by the British sculptor, designer and artist Geoffrey Clarke for St Michael's Church, Linlithgow, Scotland. The exhibition returned to Scotland to be shown on site at St Michael's church, Linlithgow, and then in London at the Pangolin Gallery, alongside the exhibition Geoffrey Clarke: Extension (September – November 2025).

It is an immense pleasure, one year on, to return to the museum during MJW with this exciting exhibition of work that shares a fascination with material knowledge and the creative potential of technologies to unlock their secrets. Each maker, through their enquiries, reveals the deep-rooted relevance of their work and ideas within a complex contemporary discourse in which minerals and materials have become politically sensitive and fought over.

Themes are reminiscent of the book 'Beauty of another order: Photography in Science' (Thomas, 1977), where the reader becomes immersed in an aesthetic order and exploration via scientific imagery, where materials are both celebrated and admired. Nearly 50 years later, we live in a "new world disorder" (Jowitt, 1992), where a mineral-driven order has replaced the post-Cold War era in a more transactional, competitive, and regionalised global landscape. Our view of minerals has arguably changed due to politicised supply chain issues in meeting the increasing demands of technological innovations like artificial intelligence or cleaner energy. The extraction and processing of minerals from everyday sand to lithium, graphite, copper, nickel and rarer metals has become the primary driver of geopolitical power.

Never have minerals become so activated and vital, and yet their beauty veiled. Transforma(c)tions invites us to reframe our perspective on minerals and material cultures by dividing them into four exhibited zones: Energetics, Metallurgics, Physics and Optics, which encourages dialogue and reflection.

Professor Stephen Bottomley
MPhil RCA, MA, BA Hons
Head of the School of Design, GSA
Lead for the Drawing Threads Research Cluster

Institution

CFPR

The Centre for Print Research (CFPR) is a distinctive centre of research excellence based at the University of the West of England. It is a unique, multidisciplinary group that combines knowledge and skills across traditional and digital techniques to reflect, innovate and find creative solutions for the future of print. Established in 1998, the CFPR has developed partnerships with world-leading academic institutions and an outstanding record in working with collaborators across a wide range of sectors, including fine art, design, material science and engineering.
In 2019 the centre was granted an award of £7.7M from Research England's 'Expanding Excellence in England' (E3) Fund to increase its internationally acclaimed empirical investigation into the artistic, historical, and industrial significance of creative print practices, processes, and technologies. It seeks to develop into a major globally recognised research centre for new printing methods, a contemporary and truly inter-disciplinary centre for the future, where external partners co-create research with researchers in state-of-the-art facilities. The new CFPR Laboratory space at UWE Bristol's Frenchay Campus was opened in 2021.

The CFPR continues to expand its research capacity under four key research areas: New Materials: Towards Sustainable Technologies; Digital Manufacturing: Additive, Subtractive, Hybrid; Print and Imaging: Reappraising the Past; Visual Art, Print and Artists' Books: Methods and Making.

INSTITUTION

CFPR

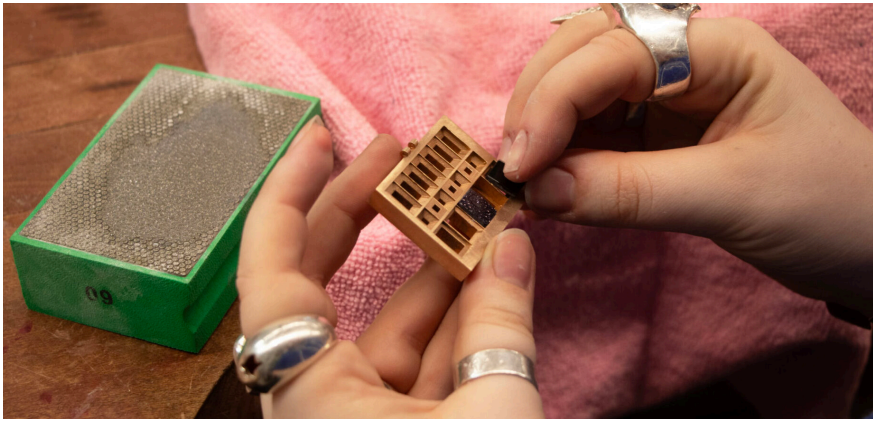
Partnerships with Industry: Our collaborative projects include Knowledge Transfer Partnerships (KTPs) funded by Innovate UK (formerly the Technology Strategy Board), undertaking contract research to solve tricky problems for industry, consultancy projects and supporting start-up businesses. We are currently working with Hewlett Packard, Denby Pottery, Burleigh Pottery, Bits from Bytes, Renishaw, John Purcell Paper, St Cuthberts Mill, Polycarta, Viridis 3D, Cranfield Colours, Canon, Roland DG, Society of Dyers and Colourists, The British Museum, The Arnolfini, Oce and The National Gallery. The research team have patented novel ceramic materials.

Partnerships with academic institutions: These include the University of Bristol; Bristol Robotics Laboratory; Università Degli Studi Di Milano, Italy; Gjøvik University College, Norway; University of Leeds; University of Ulster in Belfast; Universitat Autònoma de Barcelona, Spain; Université de Reims Champagne-Ardenne, France; Pannon University Hungary, and AKI (ArtEz) Netherlands.

Partnerships with artists, studios, contemporary makers, and galleries: CFPR Editions functions as a publishing studio of limited edition prints and multiples. The studio primarily publishes digital prints using technologies such as inkjet, UV, 3D printing and laser cutting. The focus on new print technologies in the field of fine art printmaking places CFPR Editions within a unique area of the print publishing art market.

INSTITUTION

BAJ



For more than two decades, the British Academy of Jewellery (BAJ) has been providing cutting-edge training and inspiration to the next generation of jewellers and supporting existing jewellery professionals through opportunities for upskilling.
During this time, we've grown from a small school set up beneath a jewellery shop to a respected, world-class institution offering accredited courses. This is our story.

Vision

BAJ's vision is to provide world-class technical and creative education to inspire, nurture, and train the next generation of jewellers and creative professionals.

Hands-on Learning

Students at BAJ work at different stages, from beginners to advanced-level makers. In real bench environments, they develop practical skills in jewellery illustration and computer-aided design (CAD), translating ideas into precise technical drawings while building a strong understanding of materials and design through practice.

BAJ also offers specialist short courses and a jewellery summer school programme. These provide entry points for beginners and opportunities for practising makers to further develop their skills, with a focus on craftsmanship, creativity, and sustainability.

Expert tutors

BAJ tutors are practising professionals with extensive experience across jewellery design,

INSTITUTION

BAJ

manufacturing, and specialist techniques. They do more than demonstrate; they instil the habits, processes, and professional discipline that prepare students for successful careers. This combination of hands-on guidance and industry insight ensures that every graduate is ready to contribute meaningfully to the jewellery trade.

Campuses

BAJ has multiple campuses across the UK, including London and Birmingham's historic Jewellery Quarter. These locations provide students with professional-level facilities and maintain close ties to the jewellery trade, connecting education with real-world practice.

Industry collaborations

BAJ students regularly collaborate with internationally recognised jewellers and industry professionals. Recent partnerships include projects with Michael Robinson and Lewis Malka, allowing students to handcraft one-of-a-kind pieces, explore innovative techniques, and engage directly with the creative process. These collaborations bridge education and professional practice, presenting in public exhibitions that showcase both technical skill and artistic vision.

Exhibition showcase

At the Münch exhibition, visitors can explore the creativity, precision, and skill of BAJ students, experiencing firsthand the craftsmanship and professional skill that define the academy.

Acknowledgement

Acknowledgement

The organising team would like to express our sincere gratitude to Dr Stephen Bottomley and Dr Melanie Kaliwoda for the opportunity to curate and present the Transforma(c)tions exhibition at the Mineral Museum. We extend our heartfelt thanks to the museum team for on-site support and all participating artists, whose generous contributions brought the themes of the exhibition vividly to life.

We also wish to acknowledge the support of our partner institutions: the British Academy of Jewellery, the Centre for Print Research at the University of the West of England, and the Drawing Threads Research Cluster at the Glasgow School of Art.

Our appreciation goes to Lin Cheung and Dr Jonathan Boyd for their valuable artist recommendations, and to Dr Daniel Rytz (BREVALOR) for his support of the glow project and his thoughtful engagement with the exhibition, including his co-authorship of a text for this catalogue. We are equally grateful to Otto Chow for the graphic design support that shaped the visual identity of this publication. For last-minute printing and continued assistance, we extend special thanks to Julia Kowalska, and to James Cox, for his unwavering logistical support, from helping to install the exhibition to stepping in wherever needed with the many day-to-day tasks that ensured the project ran smoothly.

This exhibition, along with the research led by Sofie Boons, has been made possible through the support of Milly Hardy and David Huson, and through funding from ESRC/AHRC SHAPE Catalyst Round 3 [UKRI3330] as part of the ARC Accelerator Programme. Yitong Zhang's PhD is supported by Prof Stephen Bottomley and Prof Ross Birrel at the Glasgow School of Art.

Artist Index


MUSEUM MINERALOGIA MÜNCHEN
TRANSFORMA(C)TIONS
MATTER DIALOGUES
Barrierefreier Zugang
Nächster Eingang


Synergetics


Metallurgics


30
Physics

Optics

Colophon

Curators and Editors
Dr Sofie Boons
Yitong Zhang

Texts by
Dr Sofie Boons
Dr Daniel Rytz
Dr Stephen Bottomley
Contributing artists

Graphic Design
Otto (Yexi) Chow

Photography
All images are courtesy of the artists and partner institutions.
Photography credits:
Adi Toch — Photo: Sylvain Deleu
Katharina Dettar — Photo: Michiel Heffels (Galerie Marzee)
Yitong Zhang — Photo: Otto (Yexi) Chow
Unless otherwise specified, works were photographed by the respective artists.

Production
Catalogue design and layout by Otto (Yexi) Chow
Printed and bound in Germany

Exhibition Partner Institutions
Museum Mineralogia München
Centre for Print Research, University of the West of England
British Academy of Jewellery
Drawing Threads Research Cluster, The Glasgow School of Art

Funding
This exhibition and the research led by Dr Sofie Boons were supported by ESRC/AHRC SHAPE Catalyst Round 3 [UKRI3330] as part of the ARC Accelerator Programme.