

İstem Özen Ruber

Materials Scientist and Engineer, Artist

Born in Ankara, in 1976. Currently based in Vienna.

Having studied and worked in science and engineering while keeping an artistic vision, I inquire the limits to how much the concepts and methods in basic sciences can diffuse into social sciences and arts (and vice versa), aiming for a continuum encompassing all. I look closely at things in very small and very large dimensions – both scientifically and artistically-, form and collect images, install, write, act, learn, teach; and most of all, connect.

Left: Light
microscopy of
organic-inorganic
hybrid photovoltaic
cell structure with
surface defects (2012)



Right: Digital
photography of a
snowy night (2013)



Most of my inspiration comes from the realization that the dimension that we experience in our daily life is just a tiny fragment of what's out there. I aspire to involve the whole universal spectrum that is open to be explored by science into my artistic canvas. In return, the limits of this exploration would be expanded through contributions from artistic creations. I liken the relationship of science and art ultimately to that in a binary star system: the two rotating around a common center of gravity, each creating and shining out its own light, at times exchanging mass from one another, existing both individually and as a single unit.

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SELECTED WORKS

Objects and Installations

I Hung My Laundry Up / Mixed Media Installation / 2018



- Are you an artist as well?

** Errr... I'm actually a scientist, but also... (Actually?? Could I not just be somebody who looks at things? Observes, connects and reflects? Let me then start by surrounding myself with the things that brought me here.)*



For the start of my first academic year at the University of Applied Arts Vienna's Art & Science program, I turned the corner I was given at the department into an installation itself. Some pages from my portfolio that was created for applying to that very Art & Science program are hung up with clothes pegs on a rope surrounding my desk. Having been admitted to the program, I imagined those pages to be laundry that came clean out of the washing machine, forming a story line on the rope about the transition I have been experiencing, starting with the "hard science" done by my physicist self and moving towards the "softer, floating stuff" that was imagined by my artist self, with some transitional and intersectional elements in between. Just like how one would hang the more intimate clothing objects in a more concealed way, the "art-end" of the rope is harder to see for the visitor than the "science-end". Some plants and sea shells accompany the above piece, symbolizing the beauty and generosity of nature where I take most of my inspiration and motivation from. Everything else is left as invisible as possible.

Exhibited at: *Angewandte Open House*, 24th October 2018, Department of Art & Science, University of Applied Arts Vienna, Austria

A Room of Her Own / Mixed Media Installation / 2018



"I spent a very long time here. Creating memories in a world 100 000 times smaller than the tip of your one hair strand. Oh, those playfully growing nano-rods! How wonderful it was when I first saw the (101) peak for the first time. And remember those lovely, wiggly UV curves?"

Do you remember how artichoke tastes? Can not find it here easily. Your grandfather would be so proud, if he could only see.

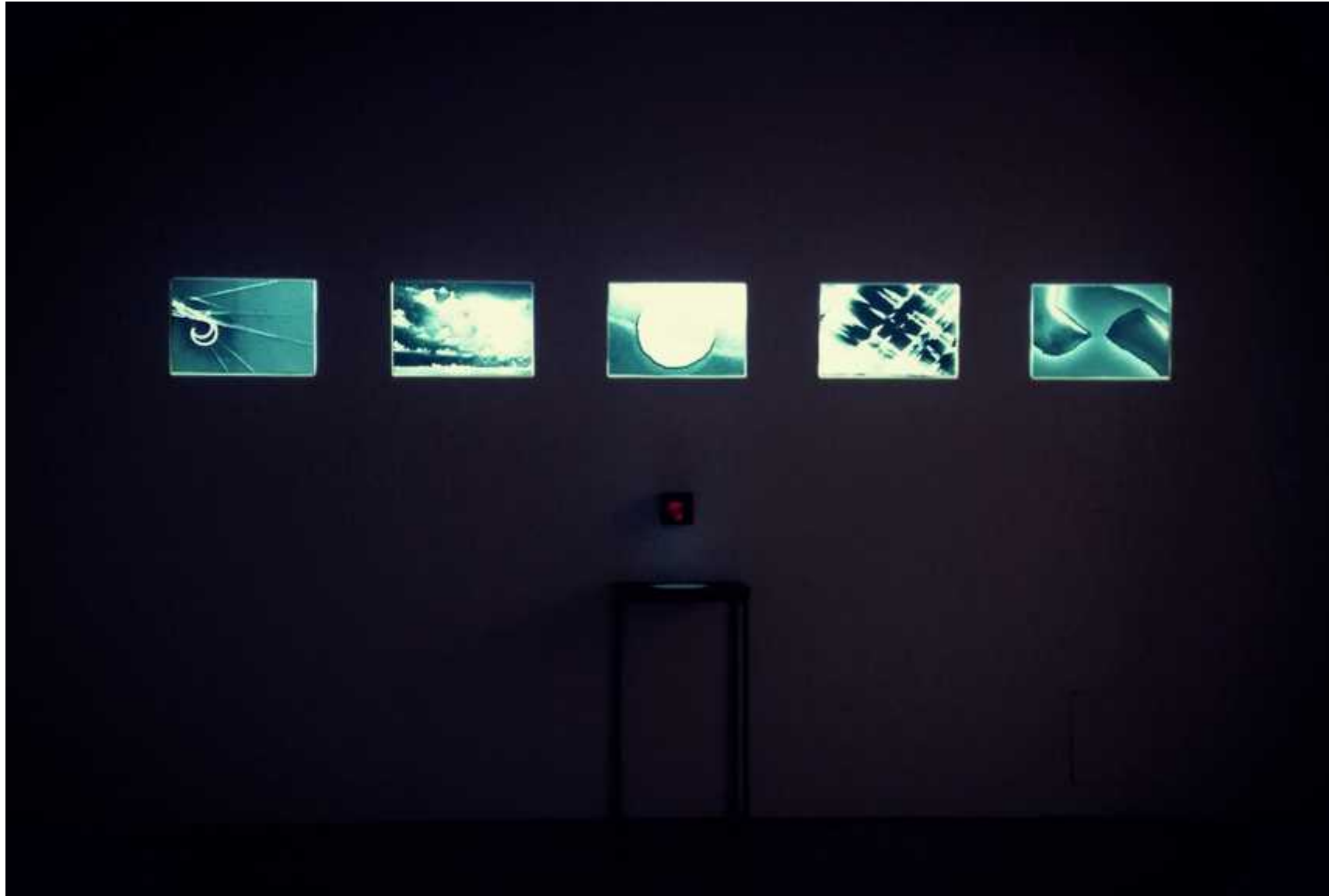
Time flows. Data disappears. So do loved ones. But we can always cherish the memories; can't we? Come, have a seat, have some coffee. Read a bit of my book, my story."



This installation tackles the meaning of "creating memories". My PhD dissertation and a representative experimental sample from my research are exhibited together with some elements of my home culture, to decorate an imaginary room from my grandparents' house. Framed scientific figures related to pivotal findings of my research are hung up on the wall instead of possibly expected family photos from good times together. The whole is a representation of the memories I have been creating through my intense and demanding scientific research, instead of the memories I could have created with loved ones during that time. Feelings of joy and longing are forever mixed.

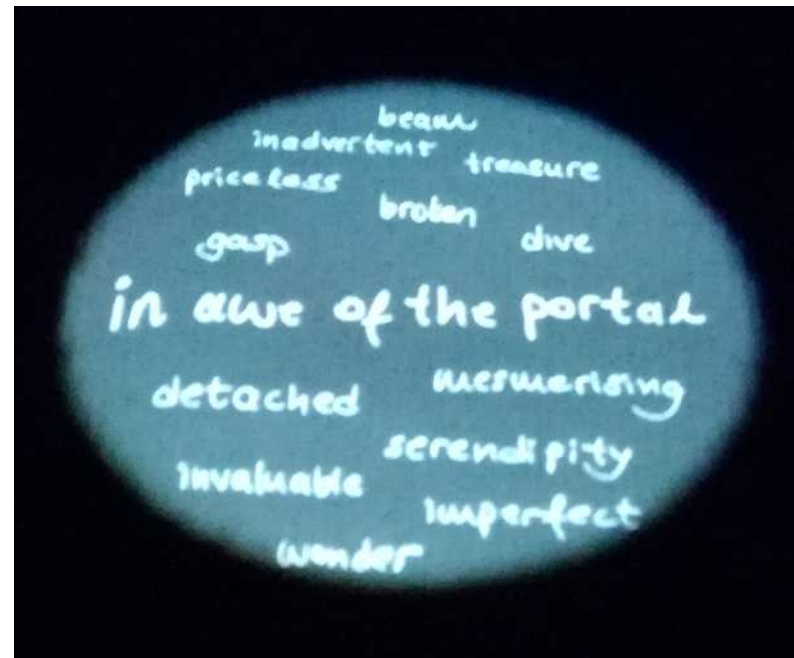
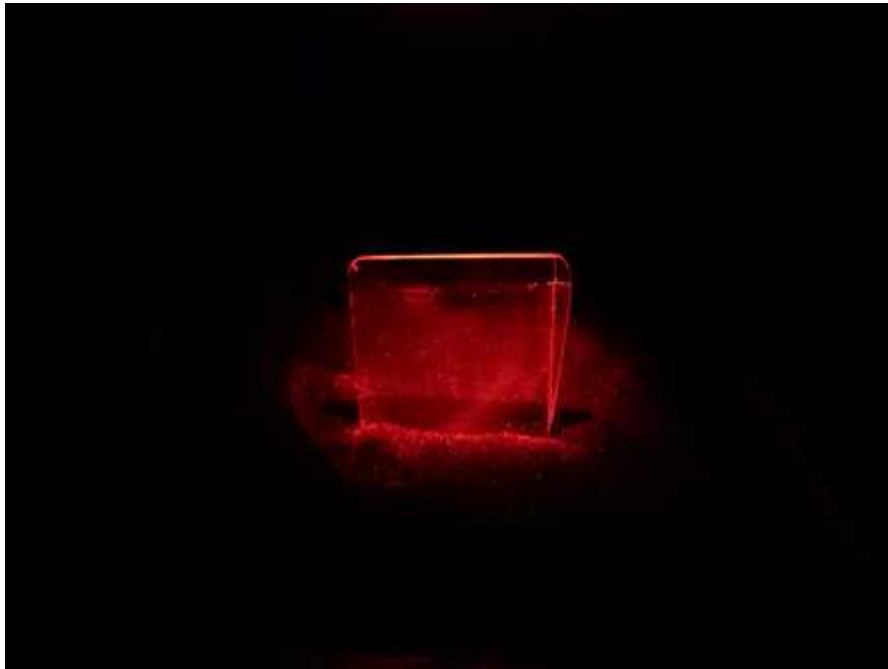
Exhibited at: *Angewandte Open House*, 24th October 2018, Department of Art & Science, University of Applied Arts Vienna, Austria

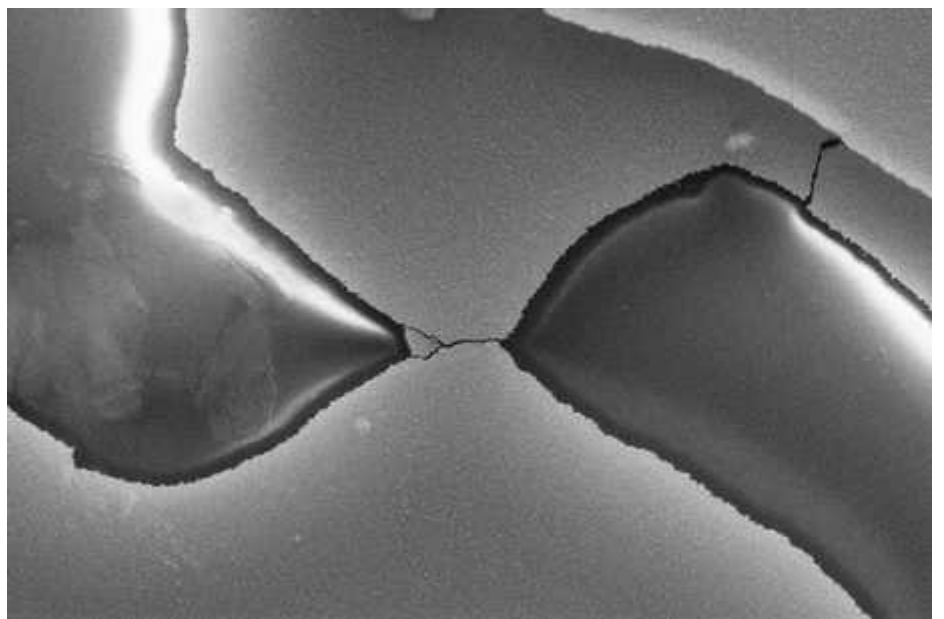
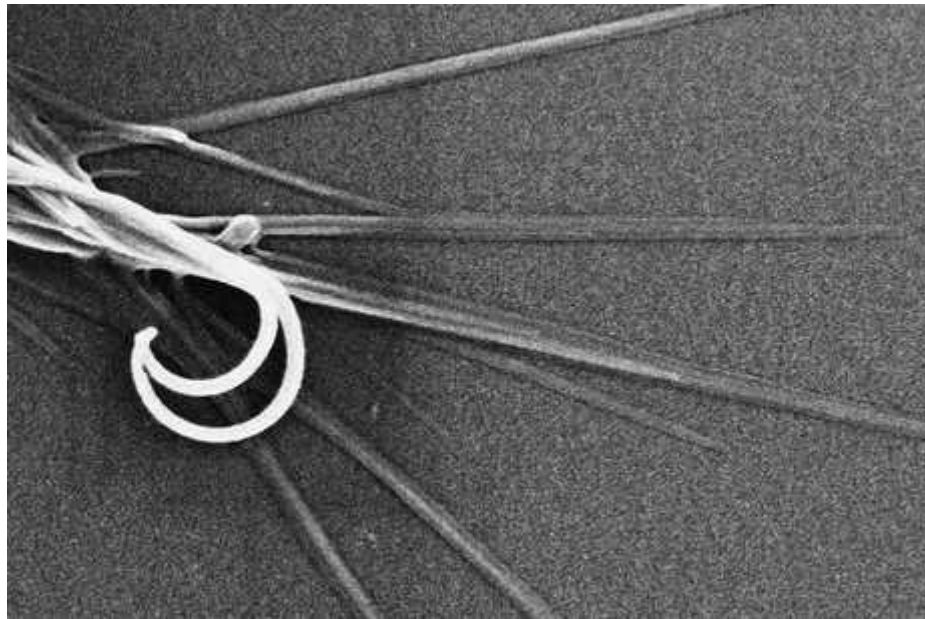
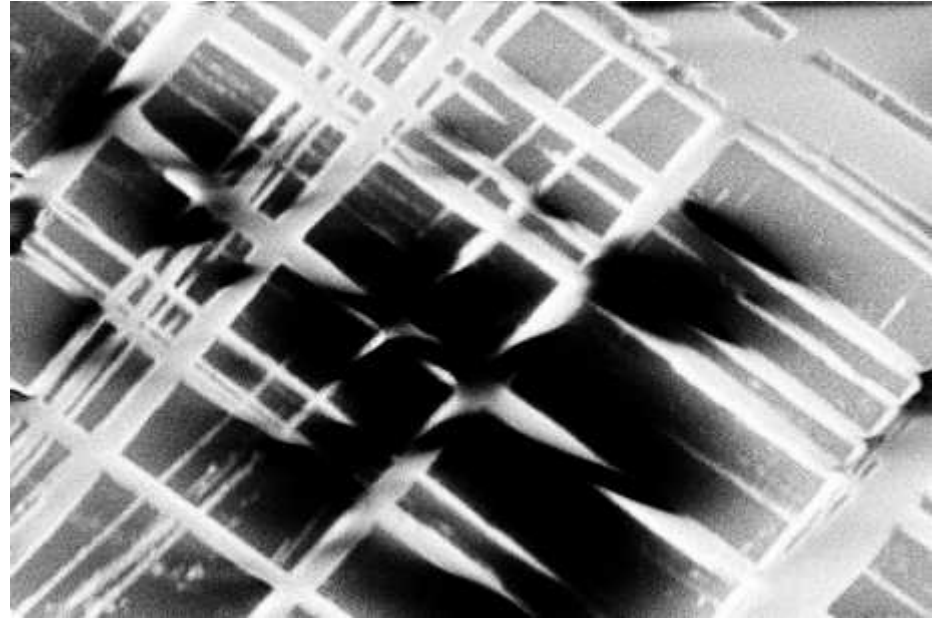
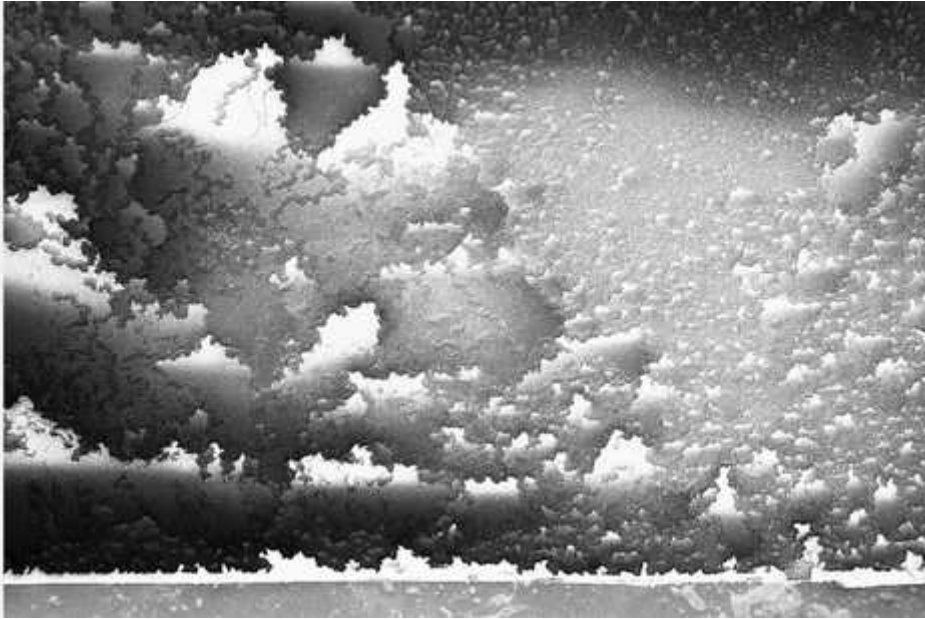
In Awe of the Portal / Mixed Media & Electron Micrograph Installation / 2019

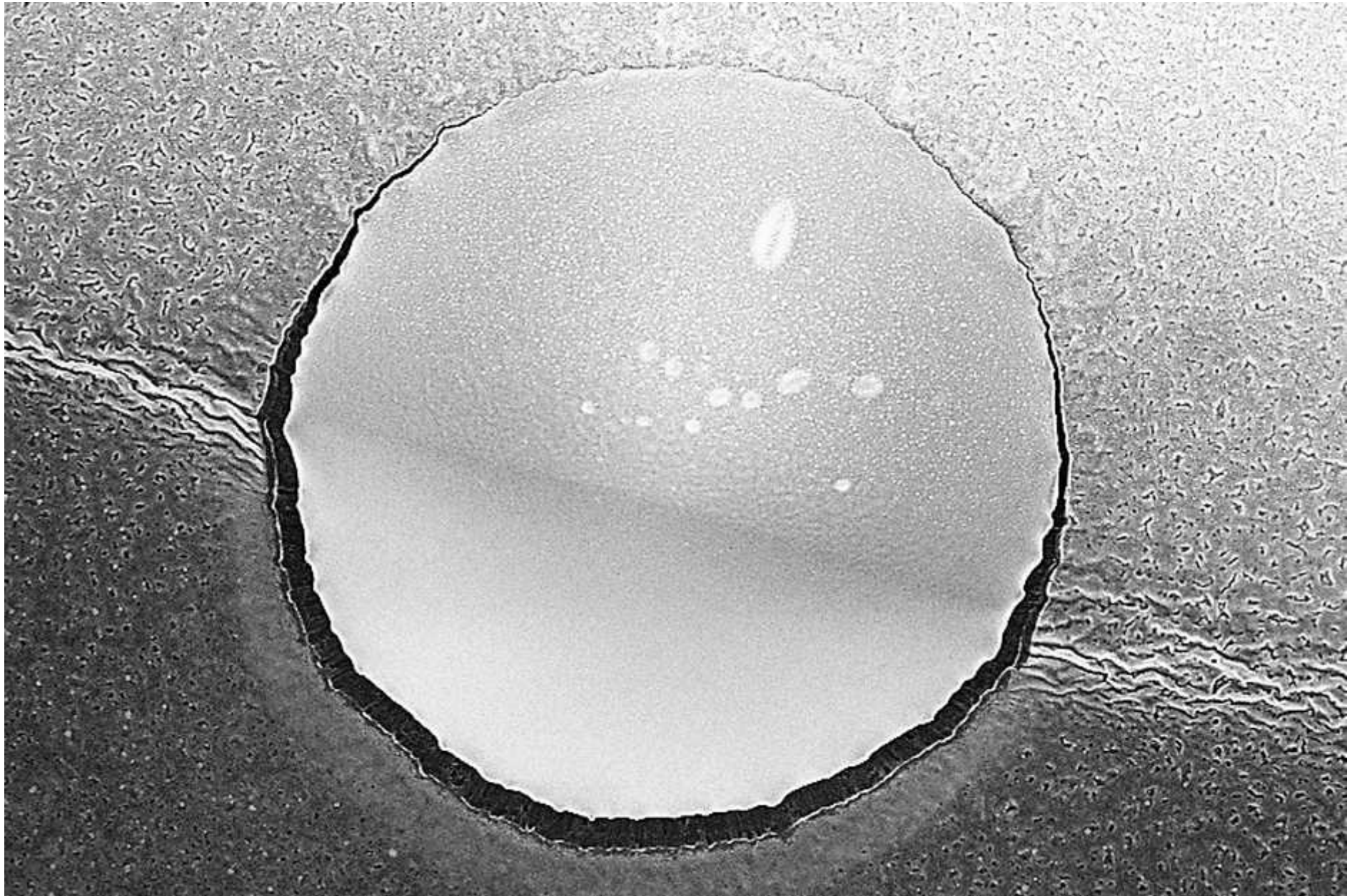


"Beam me down! I want to have a walk in nature, dive in, shrink down there -tens of thousands of times- and be in awe of it all.

Samples are imperfect, broken, detached. Experiment failed. Time's up. But no place for disheartening: one's unworthy data is another one's wonderland. Inadvertently mesmerizing. Not valuable yet priceless. Now have a good look: granted it's always there, yet is not always to be found. Just look. And let the indistinctive reveal its treasure."







This installation tackles the concepts of failure vs. success, significance vs. insignificance, and their positive and negative connotations. Scanning electron microscopy images of samples from "failed experiments" that were produced during some materials science projects are exhibited as a wall display. On one hand, all the interesting elements on those images are things that were "not supposed to be there" regarding the aim and "success" of the scientific experiment: defects, cracks, dirt, etc.. On the other hand, they are created by the exact same laws of nature where the scientist expects a "perfect" sample to be produced, and the notion of failure is only bound to the initial expectation and the point of view. The results still answers a question, albeit one that was not asked in the beginning, paving way for new paths for further research and inspiration.

One representative experimental sample -a glass microscope slide piece with a thin film coating on-, is displayed under a bright red spotlight, inside a jewelry box. It is aimed to highlight the utter significance that this piece carries for the scientific study in hand, while the sample otherwise looking quite dull, insignificant and even almost invisible.

A collection of words that represent the interplay among these concepts are displayed on a flat surface with a bright light shone on them as if "through a portal". This imaginary portal represents the lens of the microscope through which you "teleport" yourself to another dimension and achieve those unfamiliar images. This dimension is also a place where one comes to the realization that success, value, etc. are terms that we attribute to things that are otherwise just "natural phenomena". It could also be seen as a non-physical portal through which we could come to the above realization about any topic in hand outside the fields of science.

The whole installation is designed in a way to make the visitor feel as if in a typical electron microscopy laboratory: dim and quiet, with the images being in the forefront, and the illuminated prints giving the impression of computer screens with which such microscopy work is carried on. As a final note, the work carries the irony of the fact that the experimental findings that were not "good enough" for a scientific publication found a place for themselves in an art gallery.

Exhibited at: *Data Loam, Sometimes Hard, Usually Soft*, 26th February–8th March 2019, Angewandte Innovation Lab, Vienna, Austria
(www.dataoam.org)

Untitled / Mixed Media / 2019



Photo by Maximilian Gallo



A transparent box full of water with blue dispersed light inside, aiming to form an inviting atmosphere that represents a place of escape or desire. Produced for the Venice Biennale, the blue water can not be thought independently of the Mediterranean where vast number of people risk the life they are trying to save every single day, trying to reach a safe place, a shelter.

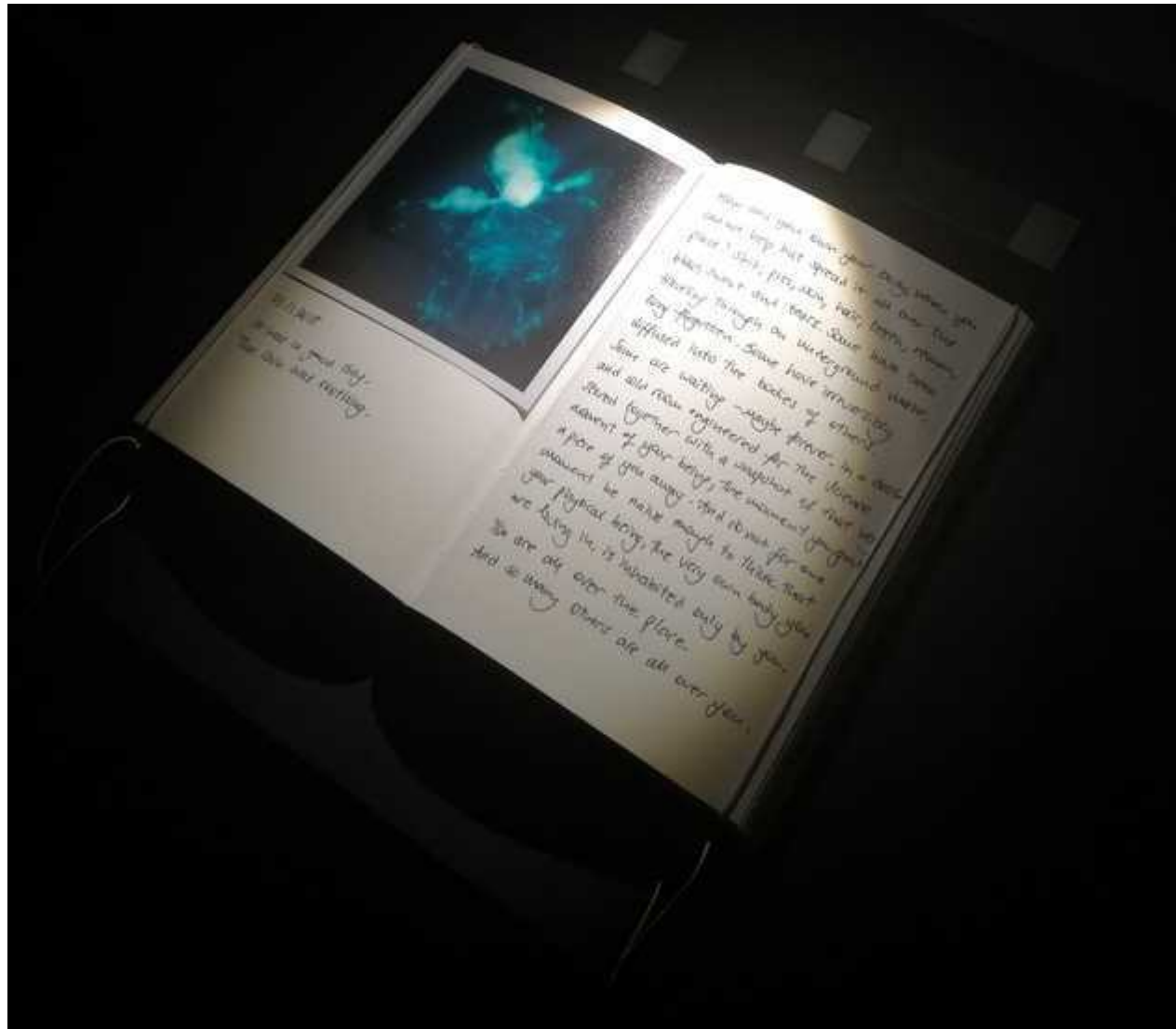
But are we really safe and undamaged in our shelter? And can we really fully exist there? Can we go through the barbed wire that surrounds that space as a whole, without being transformed or losing a piece, or even falling into pieces?

On the front face of the box is placed a digital frame with circulating photographs of plastic bags entangled onto the barbed wires. Looking at these photos that were taken along the same shores as Venice a few years prior, the answer to the above questions is, unfortunately, "often times not".



Exhibited as part of the collective installation *Boxels* by the master students and alumni of Art & Science, University of Applied Arts Vienna, during the "Biennale Sessions" at La Biennale di Venezia, 11st May 2019, Giardini Central Pavilion, Venice, Italy.

You Are All Over The Place - 1 / Mixed Media / 2019



Diary text:

01.11.2018

It was a good day. The rain was soothing.

"How can you own your body, when you can not help but spread it all over the place? Shit, piss, skin, hair, teeth, semen, blood, sweat and tears. Some have been traveling through an underground maze, long forgotten. Some have irreversibly diffused into the bodies of others. Some are waiting – maybe forever – in a dark and cold room engineered for the Science. Stored together with a snapshot of that very moment of your being, the moment you gave a piece of you away. And do not for one moment be naive enough to think that your physical being, the very own body you are living in, is inhabited only by you. You are all over the place. And so many others are all over you."

"I is another. (...) If the old imbeciles hadn't discovered only the false significance of Self, we wouldn't have to now sweep away those millions of skeletons which have been piling up the products of their one-eyed intellect since time immemorial, and claiming themselves to be their authors!"

— Arthur Rimbaud

The pieces *You Are All Over The Place 1* and *2* were produced for the exhibition *Latent Bones*, as part of the Art & Science M.A. program's first year artistic research project on Biobanks. A biobank is a large and classified collection of biological samples and related data, amassed primarily for medical research purposes. The research project explored the relationships between our bodies, the biomaterial they consist of, and the systems and structures with which they are intertwined. Legal, societal and ethical aspects of the biobank system has been studied.

The first piece is a representation of an imaginary diary. The image in focus is that of my own blood with inverted colors, taken on the date stated on the diary page. Accompanying the diary entry is a text that reflects a questioning on the concepts of "self" and "body integrity". The pages of the diary are tied together, preventing the visitor from reading any other page, stemming from the "privacy and consent" issues surrounding biobanks. The diary is exhibited together with three glass microscope slides that are typically used to preserve samples at a biobank. The slides are empty, pointing out that all one needs to know about the sample is already on the two pages.

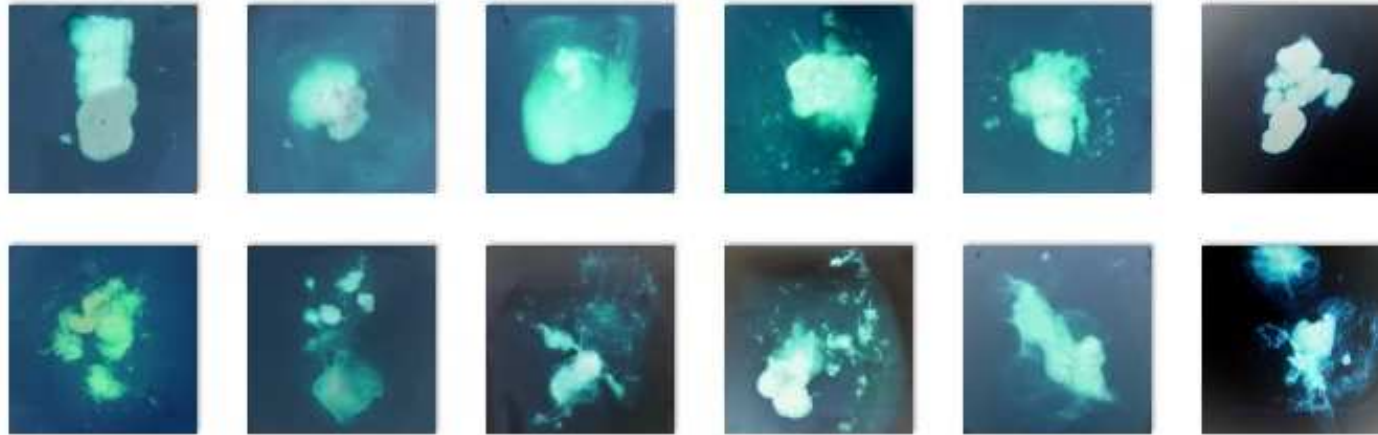
Exhibited at:

Latent Bones, 4–7th June 2019, Art & Science Department, University of Applied Arts Vienna, Austria

Globart Academy 2019 – Life, 10–12 October 2019, Essl Museum, Klosterneuburg, Austria

You Are All Over The Place - 2 / Mixed Media / 2019





You are all over the place.

01.11.2018
It was a good day. The rain was soothing.

I is another.

A snapshot
of that very moment

13.07.2018
I wish I had spent more time with them
before they died.

Inside-out
Double-inverted

12.10.2018
Today I did one more thing that I've been afraid of :)

Piece by piece,
watch it dance.

11.12.2018
It's been a long time since we last looked at
each other's eyes.

Hopes and fears

10.08.2018
I got the letter! I'm over the moon!! Yay!!

10.08.2018
"Hey, where are they taking me? It's cold!"

Previous page:

Top: The blood drop photographs with inverted colors that were printed on transparent foil to form the front panel of the object.

Bottom: Screen shots from the monitor on the back side of the object, where circulating phrases could be read, looking through front panel.



In this second piece from the biobank project and the Latent Bones exhibition (read more on the previous section), I invite you to look beyond biological samples and contemplate how they connect to our sense of identity and to the moments in our lives when we give them away, considering that they were one moment ago a piece of not only our material body but also the emotional and intellectual one.

Exhibited at: *Latent Bones*, 4–7th June 2019, Art & Science Department, University of Applied Arts Vienna, Austria

Matter in Hand / Mixed Media / 2019



Photo by Denise K. Schellmann



Hands of an antimatter expert explaining this hard-to-grasp topic, thus *taking the matter in hand*. Printed on transparent sheets covering a box, in a way that one can look through and see another.

On one hand, he uses the hand, a very basic part of the human body that is used excessively and universally for communication and all sorts of other processes in our daily life, to explain a topic that is so remote for a non-expert. *On the other hand*, there is always the question: do we really understand, or see through? Or do we just create more questions for every thing we seem to grasp? Do we create *antimatter* for every matter we take in hand?

Project in collaboration with art@CMS at CERN (the European Organization for Nuclear Research)

Exhibited at:

ORIGIN Poetics 2019 by art@CMS, 24–26th June 2019, CERN, Meyrin, Switzerland

ORIGIN Poetics 2019 at the European Physical Society Conference on High Energy Physics (EPS-HEP), 11–17th July 2019, KASK Campus, Ghent, Belgium

Meet the Universe by art@CMS and Cuántico during the Science Week by HEPHY and ÖAW, 6–12 Sep. 2019, Aula der Wissenschaften, Vienna, Austria

Angewandte Open House 2019, 24th October 2018, Department of Art & Science, University of Applied Arts Vienna, Austria

Data Loam Book Prototype / Mixed materials / 2019 (with Maximilian Gallo, Monica C. LoCascio, Ivonne Gracia Murillo)

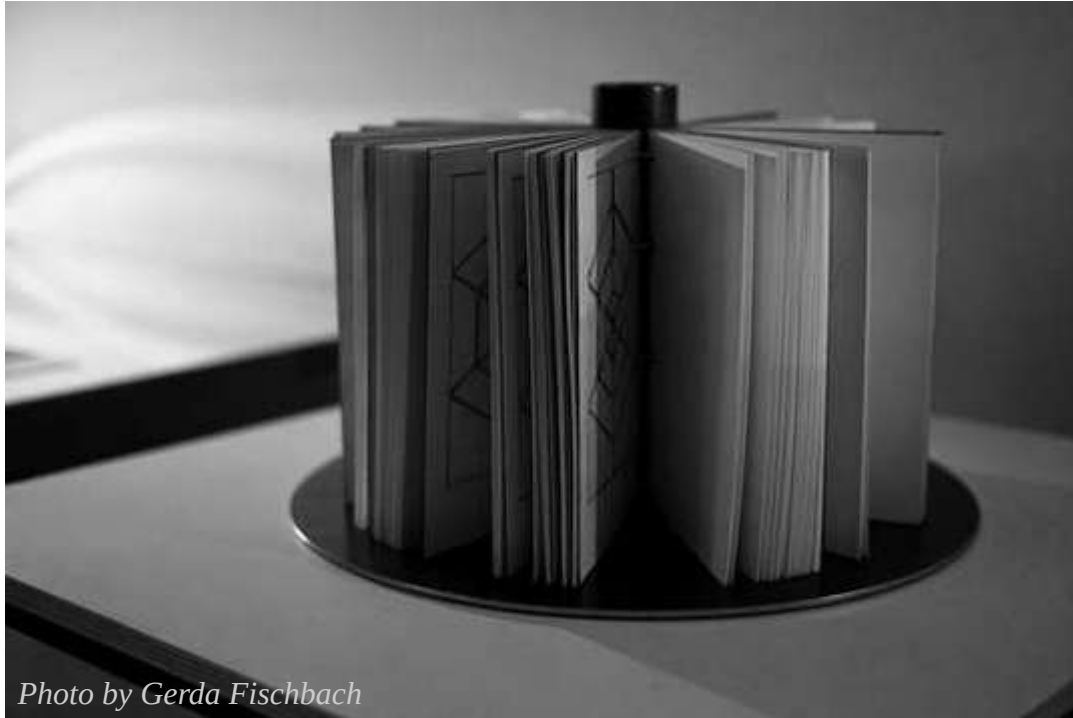
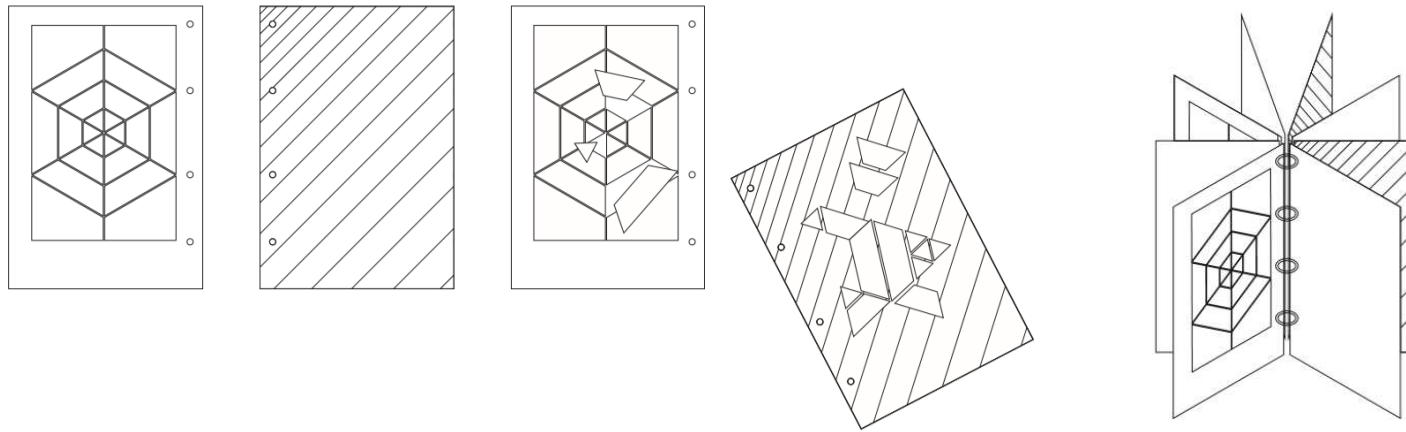


Photo by Gerda Fischbach





Illustrations by:
Ivonne Gracia Murillo

The artistic research project Data Loam (www.dataoam.org) tackles new ways of organizing information, therefore it was necessary that the sister publication do the same. In the pursuit of going beyond the conventional while allowing function to dictate form, this ever-evolving form emerged: a book that cannot be closed and carried, has no beginning or an end, inspired by both traditional design tropes as well as a spider web. The book sews around itself, over and over, with new conjunctions constantly appearing and dissolving, inviting the reader to follow different paths and create their own adventure which is forever breathing and evolving.

The visitor is invited to play with this "skeleton" and read through how the final structure will come together, notice how it is mostly hand-made in this digital-heavy age, and observe the peripheral materials that drive the "silk for the web".

Make it your own, just like the loam.

Exhibited at:

Data Loam, Sometimes Hard, Usually Soft, 26th February–8th March 2019, Angewandte Innovation Lab, Vienna, Austria

Fanzineist Vienna Art Book & Zine Fair by Fabrikraum, 24–26th May 2019, Nordbahnhof, Vienna, Austria (<https://fanzineist.com>)

Sheet Work

Time Stamps - 1 / Pigment on Paper / 2013



*Dance of the pigments, and the stories they tell.
It's physics, chemistry, and a little human touch for a moment in time.*

This piece is part of a series called Time Stamps, where different types of *traces* are presented as representations of a single moment or a certain time period.

The first of the series is a collection of paper sheets that were used to clean the surface of the water in the basin used during a paper marbling (Ebru) session. These sheets are typically tossed once they do their job, which is to rid the water surface off the traces of the previous Ebru work before starting a new one. Whereas the final Ebru pieces themselves are the commonly signified outcomes of that production session, I collect and present the *waste* sheets. The patterns on those sheets, unlike the originally aimed work, are uncontrollable and unrepeatable, thus quite serendipitous. They are unique pieces carrying a collection of a converted version of the hand movements of the artist from a previous session, the final form dictated by the laws of physics and chemistry, thus actually telling the story of an interaction of a human with the universe on a certain scale, that could be achieved only on that certain moment in time.

Exhibited at: *Data Loam, Sometimes Hard, Usually Soft*, 26th February–8th March 2019, Angewandte Innovation Lab, Vienna, Austria
(www.dataoam.org)

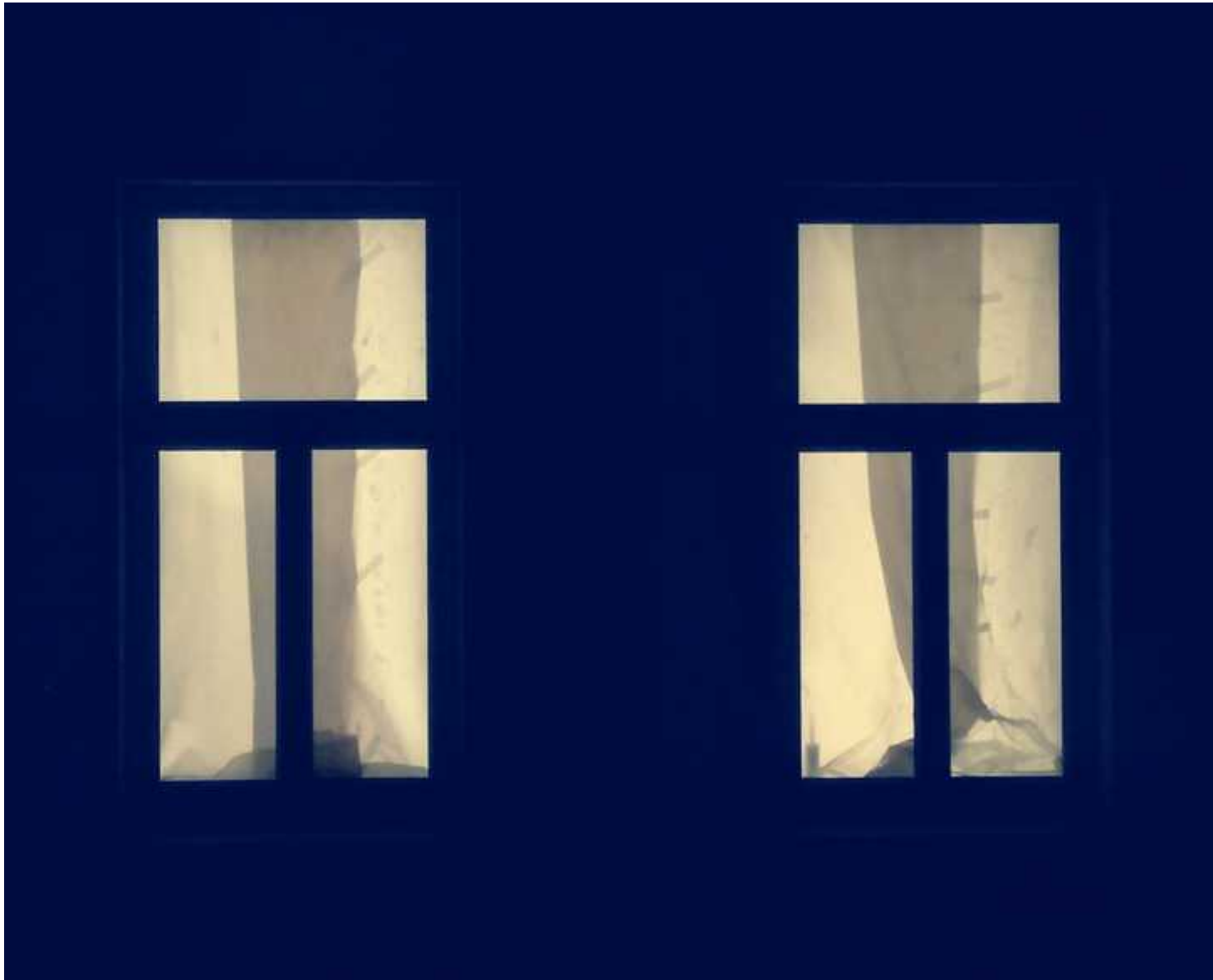
Time Stamps - 2 / Digital Photography / 2016



In this second part of the Time Stamps series, the ink that was used during a paper marbling session (Suminagashi) is photographed. The ink was aimed to stay on the water surface, in turn to modify and create certain patterns, later to be transferred onto paper. In this case, due to a miscalculation of consistency and lack of expertise in the technique, the ink sinks onto the bottom of the water basin, performing a unique dance whilst doing so. By photographing it, I tried to capture that moment in time, together with the beauty in failure and the glory of the sunken.

Exhibited at: *Offene Ateliers in Margareten* with Fabrikraum, 25th May 2019, Künstlerhaus 1050, Vienna, Austria

Selected Photographs



2011



36

2012



2014



2016



2016

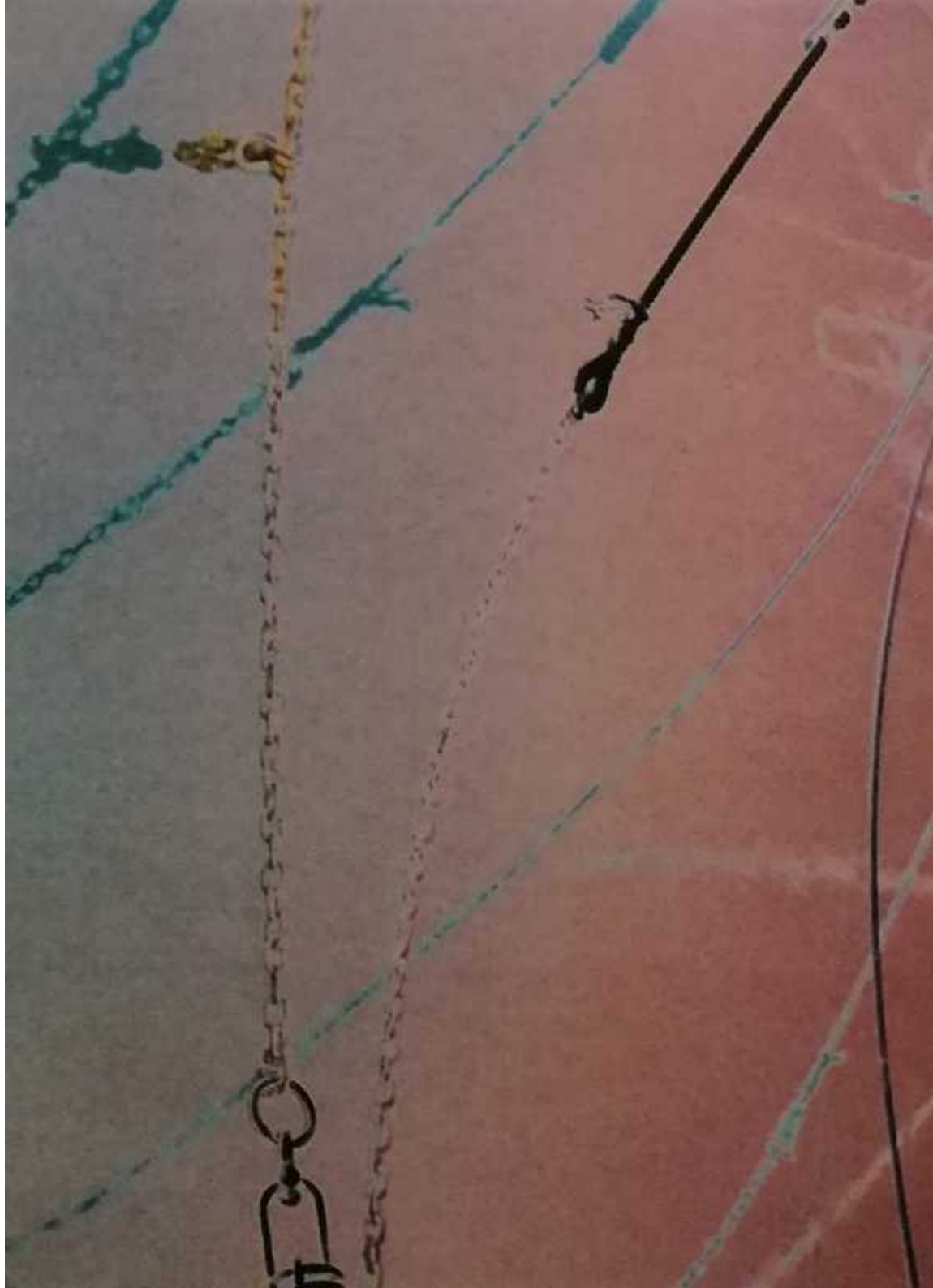


2012



41

2011



42

2011



43



2015



2012

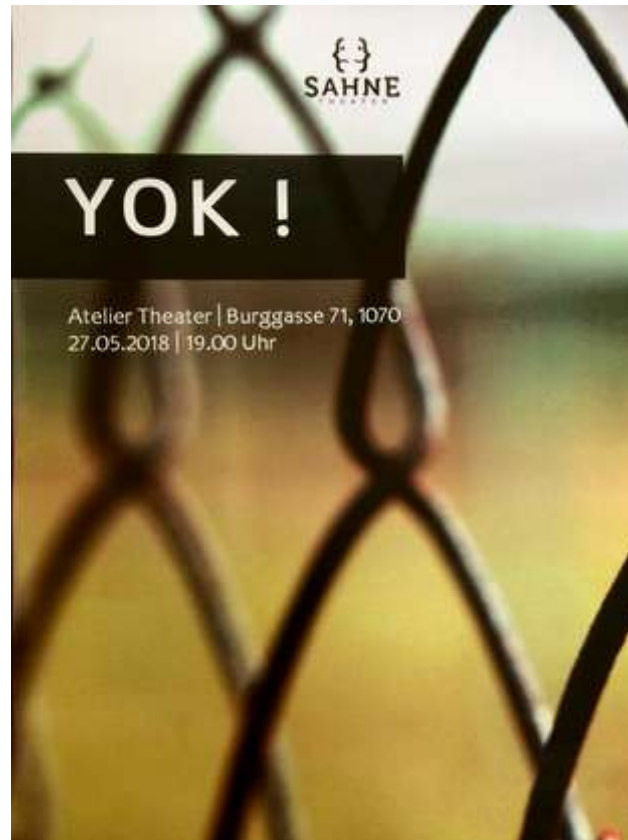


Stage Work

Yok! – No! – Kein! / Musical Theater Performance / 2018 (Director: Aret Aleksanyan, Theater Sahne Wien)



As Mr. Keuner from *If Sharks Were Men* by Bertolt Brecht (1948)



As the Editor in *The Story of a Story* by Vladimir Polyakov (1953)

Performances:

21th May 2018, Atelier Theater, Vienna, Austria

27th May 2018, Atelier Theater, Vienna, Austria

Onlar – They – Sie / Theater Performance / 2017 (Directors: Özge Dayan-Mair, Hakan Çepelli, Theater Sähne Wien)



WIEN KULTUR SAHNE WUK

Sie / Onlar
 Theaterwerkstatt Performance Atlyse Performance
 Menologe aus der Weltliteratur

24.06.2017 20.00 Uhr Stand 129 / Viktor-Adler Markt 129, 1100 Wien
 28.06.2017 20.00 Uhr Brunnenpassage / Brunnengasse 71, 1160 Wien

Künstlerische Leitung:
 Özge Dayan-Mair
 Hakan Çepelli

Mitwirkende:
 Cemile Polat, Nagihan Memişođlu, Uđur Özbaş,
 Orkun Kaan Özcan, Ülgen Aysen Hofstätter,
 İstem Özen Ruher, Kingin Sangül, Serhat Ođuzhan Suyolcu,
 Abdurrahman Çimenli, Nilüfer Naz

brunnenpassage Stand 129

UNIQA, Sürgener All. Deniz, NLCARGO, HUDA, CE NOVA



As King Midas in *Midas' Ears* by Güngör Dilmen (1959)

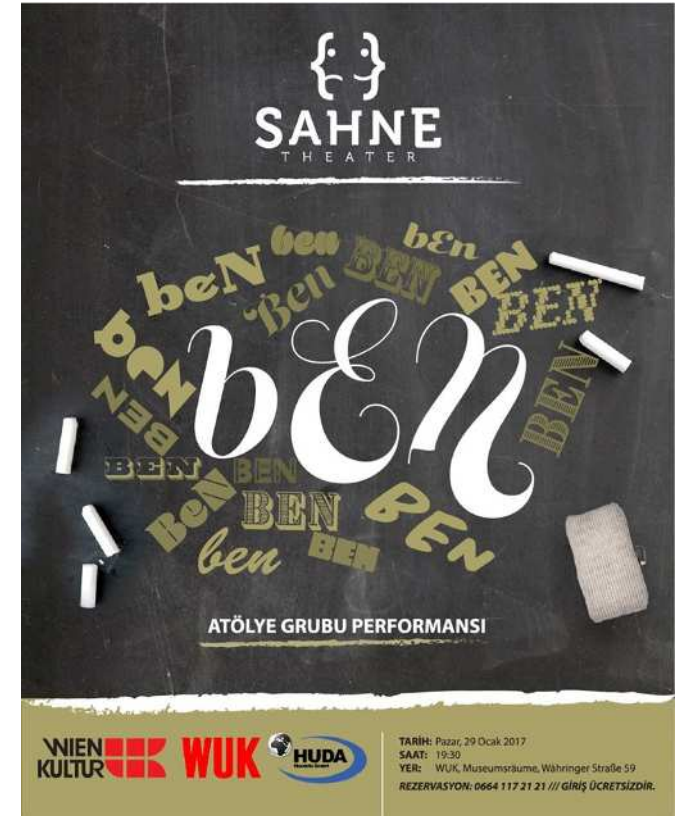
As Joan of Arc in *St. Joan* by Bernard Shaw (1923)

Performances:

24th June 2017, Caritas Stand 129, Vienna, Austria

28th June 2017, Brunnenpassage, Vienna, Austria

Ben – I – Ich / Theater Performance / 2017 (Director: Aslı Kışlal, Theater Sähne Wien)



As an interpretation of herself in *Adım İstem*, written by herself, with contribution to dramaturgy (2017)

Performances:

29th January 2017, WUK Museumsräume, Vienna, Austria

ABOUT

Background:

İstem Özen studied Chemical Engineering (B.S. and M.S.) at Middle East Technical University, Ankara and Materials Science (Ph.D.) at Sabancı University, Istanbul. Her main research areas were heterogeneous photo-catalysis, structure and residual stress control in metal oxide thin films, and nano-structure growth. Through her work, she received several student research awards and fellowships. From 1998 to 2007, she taught several physics, chemistry, astronomy and engineering courses as a teaching assistant.

From 2007 to 2010 she worked as the founding group leader of the applied research group at Kalekim, Istanbul. There she led research projects for industrial applications, established university-industry collaborations and co-supervised both product development and Ph.D.-level academic research. In 2010 she moved to Italy on a beamline scientist training scholarship from IAEA and SESAME, and participated in several materials research projects at Elettra Sincrotrone Trieste and TASC National Laboratory / IOM-CNR, mostly on implementation of metal oxide structures in photovoltaic systems.

After working as a researcher of materials science in academia and industry for several years while keeping her artistic passions alive and searching for ways to connect the two worlds, in 2014 İstem moved to Vienna, where she decided to reanimate her previous artistic interests and attended several writing and fine art workshops. In June 2018 she completed Atelier Theater Sahne Wien, where she studied acting, music and art history, and performed on stage in various numbers. She has been studying at the Art and Science masters degree program at the University of Applied Arts in Vienna since October 2018. She is currently working part-time as a scientist at the Vienna Technical University, and volunteers at the Austrian Space Forum.

Group Exhibitions:

- athomeinaliminalworld, online since 10 Jan. 2020 (<https://www.instagram.com/p/B7JFFzxjEGb/>)
- Vienna Art Week Open Studio Days, 16–17 Nov. 2019, Art & Science, Univ. of App. Arts Vienna, Austria
- Meet the Universe at Science Week by the Institute for High-Energy Physics of the Austrian Academy of Sciences, 5–12 Sep. 2019, Aula of Sciences, Vienna, Austria
- ORIGIN Poetics 2019 at the European Physical Society Conference on High Energy Physics (EPS-HEP), 11–17 July 2019, KASK Campus Bijloke - Zwarte Zaal, Ghent, Belgium
- ORIGIN Poetics 2019 by art@CMS, 24–26 June 2019, CERN main building, Meyrin, Switzerland
- Latent Bones, 4–7 June 2019, Department of Art & Science, University of Applied Arts Vienna, Austria
- Offene Ateliers in Margareten with Fabrikraum, 25 May 2019, Künstlerhaus 1050, Vienna, Austria
- Fanzineist Vienna Art Book & Zine Fair by Fabrikraum, 24–26 May 2019, Nordbahnhof, Vienna, Austria
- Boxels group installation by master students and alumni of Art & Science, University of Applied Arts Vienna, during the "Biennale Sessions" at La Biennale di Venezia, 11 May 2019, Giardini, Central Pavilion Sala F, Venice, Italy
- Data Loam. Sometimes Hard, Usually Soft, 25 Feb.–8 March 2019, Angewandte Innovation Lab, Vienna, Austria
- Angewandte Open House 2018, 24 Oct. 2018, Department of Art & Science, University of Applied Arts Vienna, Austria
- Art & Mind workshop closing exhibition, 19 June 2018, Antirassismus Zentrum Wien, Austria
- Temasız / Theme-less by Sankt Georgs Alumni Association, 23–31 Jan. 2015, Mekan 68, Vienna, Austria
- Nanotechnological Approach to Ceramics Imaging electron micrograph exhibition at the 18th National Electron Microscopy Congress,, 26–29 Aug. 2007, Anadolu University, Eskişehir, Turkey

Video Participations:

- *Duran Duran Unstaged Directed by David Lynch: A Multimedia Event*, participation by photography, 23rd March 2011 Mayan Theater, Los Angeles, USA
- Duran Duran's *All You Need Is Now* World Tour backdrop video for the live shows, participation by photography, featured in the DVD film with the title *A Diamond In the Mind*, 2011–2012, around the world

Stage Performances:

- *Debut Concert* by Media Innovation Orchestra & Technochor (chorist), 19th Oct. 2018, Borromäus Saal, Vienna, Austria
- *Yok! / No! / Kein!* by Theater Sahne Wien (stage play, actor and singer), 21st & 27th May 2017, Atelier Theater, Vienna, Austria
- *Onlar / They / Sie* by Theater Sahne Wien (stage play; actor and singer), 24th June 2017, Caritas Stand 129 & 28th June 2017, Brunnenpassage, Vienna, Austria
- *Ben / I / Ich* by Theater Sahne Wien (stage play; writer and actor), 29th January 2017, WUK Museumsräume, Vienna, Austria

Associations and collaborations:

- Austrian Space Forum (<https://oewf.org>)
- CERN - art@CMS (<https://artcms.web.cern.ch/>)
- Data Loam artistic research project (<http://www.dataoam.org>)
- Fabrikraum Art and Cultural Association (<http://www.fabrikraum.org/>)
- Chimaera Art and Cultural Association

Education:

- Current: M.A. in Art & Science, University of Applied Arts Vienna, Austria (since October 2018)
- Ph.D. in Materials Science and Engineering, Sabancı University, İstanbul, Turkey (2001–2006)
- M.S. in Chemical Engineering, Middle East Technical University, Ankara, Turkey (1998–2001)
- B.S. in Chemical Engineering, Middle East Technical University, Ankara, Turkey (1994–1998)