## **Markus Butkereit**

## **Results and Suppositions**

## **Time and Uncertainty**

"Mankind is at a turning point, the beginning of a new rationality in which science is no longer identified with certitude and probability with ignorance."

11/2 Prigogine, The End of Certainty

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Physics is considered the most basic of all disciplines. On its foundations, human beings have calculated the movements of the planets, have invented the steam engine, have constructed the atomic bomb. Since physicists seem to have the deepest insight into nature and how nature is constituted, their statements carry weight. Physics offers an explanation for the world.

When Isaac Newton laid the foundations of classical mechanics, he at the same time was suggesting certain definite ideas about time and space. The connection between forces and motion that is described in the Newtonian laws take place in absolute space. The development of a system is predictable. This means that a state is described in the present by the position and the speed of the total points, and can be calculated on the basis of physical laws for both the past and the future. Time, from Isaac Newton onwards and even for Albert Einstein, is always understood as being reversible.

The second law of thermodynamics makes statements about the direction of processes and introduces the principle of irreversibility. The historically oldest formulation, by the German physicist Robert Clausius, declares: "By itself, heat never transfers from a body with a lower temperature to a body with a higher temperature." In other words, in a closed system left to itself, entropy can never decrease. It can only either increase or remain constant.

The works of Markus Butkereit play with the idea of entropy: in the closed mechanical installations Der Schwarze Schlitz, Scissor Lifter Love, Puctured, or Turnaround – as a measure of disorder –, and in the quasi thermodynamic installations New Year's Eve, Ikarus 2000, Conditioning, Disparität 01, or Come on baby let's take a ride – as the degree of uncertainty in the experimental results.

The chemist Ilya Prigogine, who was cited above, carried out research in thermodynamics, the area of science which, using the idea of entropy, introduced the concepts of irreversibility and the Arrow of Time into physics. Very early on, Prigogine noticed the disparity between the Arrow of Time of physics and that of biology and the historical sciences. While physicists view irreversibility and see disintegration, the loss of order and useable energy, biologists and historians view evolution and history and see creativity and the development from the simple to the complex.

In 1977, Prirogine was awarded the Nobel Prize in Chemistry for his contribution to the thermodynamics of irreversibility, especially for the theory of dissipative structures. In his research, he was able to show points of branching out, known as bifurcations, from which a system could develop in various directions. Which path the system will choose seems, according to our present knowledge, completely up to chance.

Markus Butkereit purposely creates unstable states, but the concept of bifurcation becomes particularly clear in the explosions: an initially unstable system transgresses the threshold of instability, loses its equilibrium, and in the moment of explosion leaps into a completely new unpredictable state.

His irreversible works make time itself the point of focus, not only in the experimental process and the process of formation, but also through classical vanitas motifs like smoke, anvils, candles, scraps of food, or the remains of flowers that turn up alongside contemporary symbols of change like infusion bags, compressed air cylinders, pressure gauges, mobile air conditioners and – again and again – explosive devices. But not only in the works New Year's Eve, Scissor Lifter Love, Das Tiefgraue Vlies is it uncertain whether the observer is witnessing disintegration or the coming into being of something completely new. Ixis Hempelmann

## Markus Butkereit - Portfolio 2018

## **Ikarus 2000**



### Set-up and Execution:

A 24 m high working platform is set up in a room. The crank arm of the lifting platform is extended until below the ceiling of the room. In the safety cage of the lifting platform is a switched-on 18 KW Fresnel Daylight floodlight, which generates a lot of heat. On the floor of the room are nine remote controlled model helicopters. The rotor blades of the helicopters are made of wax.

Through use of a remote control device, the model helicopters are flown close to the floodlights.

### Supposition:

When the model helicopters fly too close to the headlight, the wax rotor blades melt and they plummet to the ground.



## rkiis Burkereit - Dortfolio 2018

## **Conditioning**

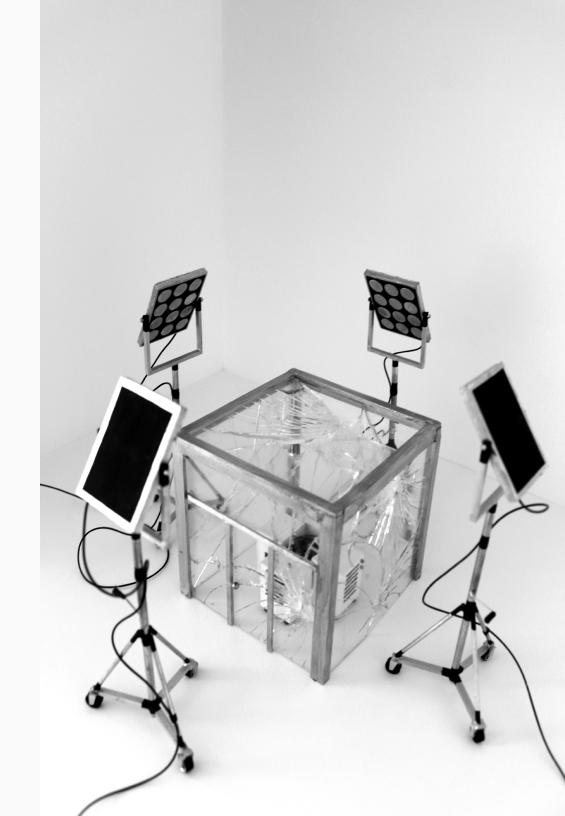


### Set-up and Execution:

A 4 x 4 m glass case with a steel frame is set up in a room. On one side of the glass case is a door. At the center of the glass case are four mobile air conditioners. Positioned on each side of the glass case at 1 m distance is a floodlight (Brut, Dino) directed the panels. The air conditioners are turned on. When the temperature inside the glass case reaches 16 degrees Celsius, the four floodlights are switched on.

### Supposition:

After an indefinite time, the glass panels will burst because the thermal stress inside the glass case will become intolerable. The glass roof will probably fall into the interior and the side panels will crack.



## Disparität 01

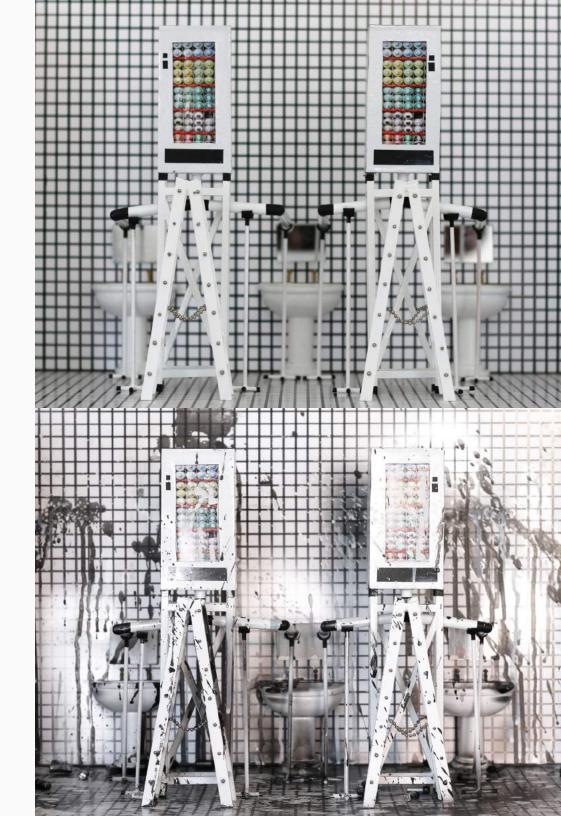


### Set-up and Execution:

Three sinks are mounted on the wall of a white-tiled bathroom. Above each sink hangs a mirror. Two converted soda vending machines stand on a 2.5 m high steel scaffolding 3 m in front of the sink. The vending machine contains white, black and silver spray paint cans. The temperature in the soda vending machine is minus one degree Celsius. Several pipes are mounted beneath the dispensary area of the vending machine, connecting to the sinks. A ladder is deployed in front of each vending machine. Hot water is running from the faucets of the three sinks. Climbing up the ladder, one inserts a coin into the slot and selects a number for a spray can.

### Supposition:

The selected spray can falls into the dispensary area, enters the pipe, then slides down to fall into the sink. The hot water flows over the frozen spray can. The temperature difference between the frozen spray can and the hot water is so great that the can bursts after an indefinite period of time. Probably the spray can flies through the room and the paint splashes onto the walls and the floor.



## Come on baby let's take a ride

### Set-up and Execution:

A carousel with eight seats is set up in a room. There is a scuba tank placed on each seat, lashed with a truck safety strap. The scuba tanks are filled with 300 bars of compressed air. A pressure gauge has been screwed onto the tanks. Each pressure gauge rests on a 60 cm high block of squared timber, which has been placed next to the seat. Eight candles are positioned on the floor around the carousel. A hemp cord, fastened to the ground with a hook, is set up in front of each candle. The cord is guided 40 cm above the candles to a hook on the ceiling, and then down to one meter above the manometers. Hanging from the end of each hemp cord is an anvil, which is aligned exactly above the manometer.

The candles are ignited simultaneously.

### Supposition:

After an indefinite period of time, a hemp cord is burned through and an anvil falls onto a manometer. The manometer breaks off and the bottle's contents escape suddenly. Some seats tear off, flying through the room. Maybe the carousel starts to move.



## **Die Schaukel**

### Set-up and Execution:

Two children's swings are set up in a room obliquely facing each other. A compressed air cylinder is placed on each seat, lashed with a truck safety strap and filled with 300 bars of compressed air. Pressure gauges are screwed onto the compressed air cylinders, which rest on a 60 cm high square piece of timber standing next to the seat. Four candles are placed around the swings. A hemp cord, fastened to the ground with a hook, is set up in front of each candle. The cord is guided 40 cm above the candles to a hook on the ceiling, and then down to one meter above the manometers. Hanging from the end of each hemp cord is an anvil, which is aligned exactly above the manometer. The candles are ignited simultaneously.

### Supposition:

After an indefinite period of time, a hemp cord is burned through and an anvil falls onto a manometer. The manometer breaks off and the contents of the bottle escape suddenly. The seats whirl wildly through the air twisting around the tube on which the seats are fastened. Maybe a seat breaks off.



# rkus Burkereit - Portfolio 2018

## **New Year's Eve**

### Set-up and Execution:

Four hand trucks are placed side by side at the same distance from each other in rows of two in front of a wall. The first row stands at a distance of 10 m from the wall. The second row is 5 m behind the first row.

On each hand truck a compressed air cylinder is placed upside down. The compressed air cylinders are filled with 300 bars. A pressure gauge is screwed on the compressed air cylinders. Eight target circles are hung in two rows on the wall in front of the hand trucks. The bottom row is mounted at a height of 2 m. The higher one is arranged at a height of 6 m. Behind the hand trucks are four pallet cages each with nine compressed air cylinders.

Next to each hand truck is a candle on the ground. A hemp cord, fastened to the ground with a hook, is set up in front of each candle. The cord is guided 40 cm above the candles to a hook on the ceiling, and then down to 3 m above the manometers. Hanging from the end of each hemp cord is an anvil, which is aligned exactly above the manometer. The candles are ignited simultaneously.

### Supposition:

After an indefinite period of time, a hemp cord is burned through and the anvil falls onto a manometer. The manometer breaks off and the bottle's contents escape suddenly. The compressed air cylinders fly towards their targets on the wall. They'll probably penetrate the targets and smash into the wall.



# rkiis Birkereit - Dortfolio 2018

## **Der Schwarze Schlitz**



A Tremo Multicar stands in the middle of a room. A 1.5 m wide snow brush is mounted on the hydraulic extension arm of the Tremo Multicar. On the upper steel cover of the snow brush, an IBC tank filled with 1000 I of water is placed and lashed with truck safety straps. The snow brush is switched on.

### Supposition:

As the rear tires of the Multicar lift up the snow brush will slowly dig into the ground. This will probably create a lot of dust and dirt.





# Markiis Butkereit - Dortfolio 2018

## Die Schräge Linie

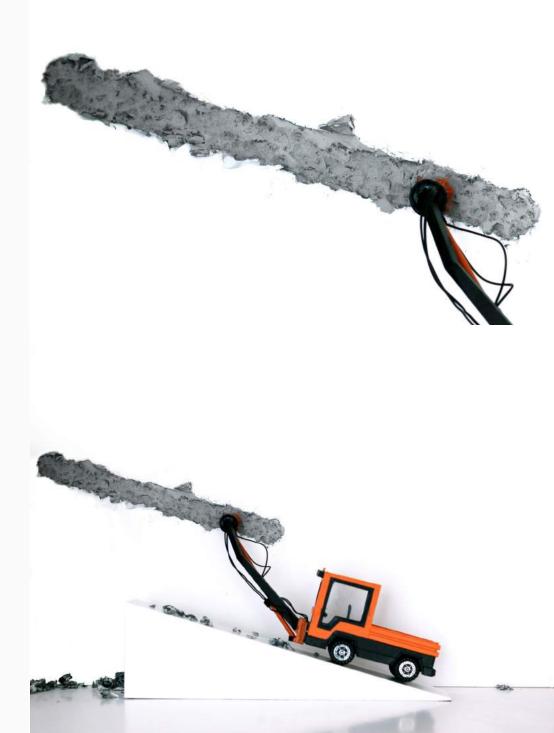
### Set-up and Execution:

A 5 m ramp is set up in a room. The ramp is placed parallel to a wall and rises to a height of 1.5 m. In front of the ramp is a Tremo Multicar. A round curb cleaning brush is mounted on the hydraulic extension arm of the Tremo Multicar. The extension arm is adjusted so that the cleaning brush rests firmly against the wall.

The cleaning brush is switched on and the Tremo Multicar is driven up and down the ramp again and again.

### Supposition:

Circular scratch marks on the wall are created after an indeterminate period of time. This will probably create a lot of dust and dirt.



# arkus Butkereit - Portfolio 2018

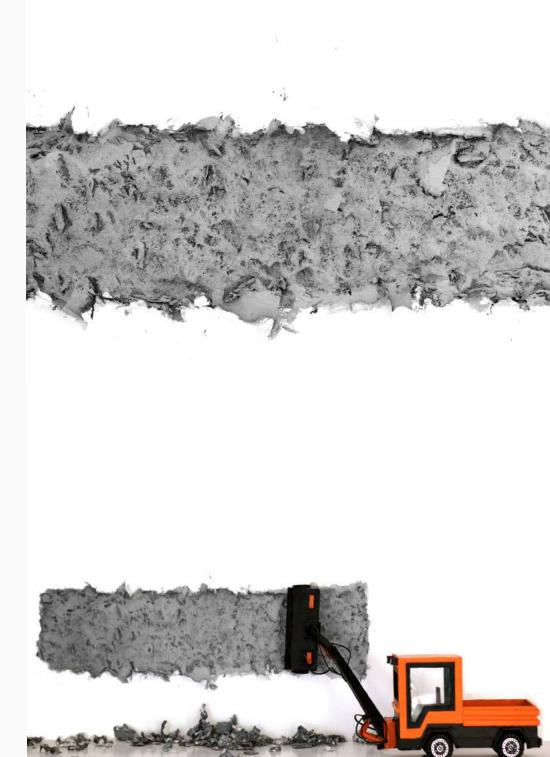
## **Das Tiefgraue Vlies**



A Tremo Multicar stands in front of a wall. A 1.5 m wide cleaning brush is mounted onto the hydraulic extension arm of the Tremo Multicar. The extension arm is adjusted so that the cleaning brush rests firmly against the wall running parallel to the Tremo Multicar. The cleaning brush is switched on and the Tremo Multicar keeps going back and forth.

### Supposition:

After an indefinite time, there are 1.5 m wide scratch marks on the wall. This will probably create a lot of dust and dirt.



# arkiis Biitkereit - Dortfolio 2018

## **Scissor Lifter Love**



### Set-up and Execution:

A tennis court with a blue acrylic floor is set up in a room. The base of the tennis court measures 23.77 x 10.97 m. Black tennis nets are stretched in the middle axis of the T formed by the service line and the center service line. The deployed nets form a cross. At the ends of the field, 80 cm high ramps are positioned. A scissor lift stands before each of the four ramp. The scissor lifts are traveling simultaneously with the same speed up the ramps.

### Supposition:

At an undetermined point, the scissor lifts on the ramp will incline toward the center, colliding with the opposite scissor lift. Maybe all four scissor lifts will come to a standstill leaning against each other in the middle of the playing field. Some of the scissor lifts might possibly overturn.



## arkiis Bii+kerei + - Dor+folio 201

## **Punctured**





At a height of 4 m, two slots have been chiseled into a wall. The distance between the slots corresponds to the distance between the prongs of the forklift. The lift mast of the forklift truck is fully extended. A Manitou lifts the forklift upward, drives up to the wall and pushes the prongs of the forklift all the way through the two slots. On the prongs of the fork, which protrude through to on the other side of the wall, an IBC tank filled with 1000 I of water is placed.

### Supposition:

The forklift is suspended one meter above the ground.





## rkiis Burkereit - Dortfolio 2018

## **Turnaround**



A 1 m3 hole is dug. The hole is filled with concrete out of which projects 15 cm lengths of four steel U-bolts. The lengths of the U-bolts correspond with the length of the prongs of the fork lift, thus fitting into the U-bolts. The lift mast of the forklift is fully extended.

A Manitou turns the forklift upside down and the fork is pushed through the four U-bolts. A Euro pallet with six copper cylinders is placed on top of the concrete foundation.

Supposition:

The forklift is upside down.



## arkiis Biitkereit - Dortfolio 20

## 1976 born in Berlin, Germany









### SOLO EXHIBITIONS

- 2018 Obfuscation, Bazis Contemporary, Cluj Napoca, Romania
- 2016 Tigerpicture, B.Z.Z.T. II, Cold coffee and..., Hidden Indexes, Berlin, Germany
- 2013 Ogon no Taiyo Shikkoku naru Yoake, Stoffwechsel Galerie, Mannheim, Germany
- 2011 Drive by shooting, Diagonales 61, Marseille, France
- 2011 Dr. Mabuse, Addict Gallery, Paris, France
- 2010 Himmelfahrt Nr.1 53. Urban art info. Berlin. Germany

### **GROUP EXHIBITIONS**

- 2018 Bima and Friends III, curated by Bhiema Griem, Berlin, Germany
- 2018 Everything in Its Right Place, Raum Vollreinigung, Berlin, Germany
- 2018 Connected East meets West, video screening, Berlin, Germany
- 2018 Achtung! uwaga, Sabot Mimi Faster, Swinemuende, Poland
- 2018 Bima and Friends II, curated by Bhiema Griem, Berlin, Germany
- 2018 Struktur elle Gewalt, Sabot Mimi Faster, Berlin, Germany
- 2018 Exhibitionists, curated by Biancoshok, Elfo, Rub Kandy, Rome, Italy
- 2018 The Starting Point... The Souvenir Museum, curated by Rose Pacult, Paris, France
- 2017 L'Action prend place, Festival Non Alignes, La Generale, Paris, France
- 2017 What the Weekend is Gallery, Alte Muenze, Berlin, Germany
- 2016 Geben Sie ihm keine Zigarette, er ist noch ein Kind!, H.Indexes, Berlin, Germany
- 2015 To connect sign up today, Goeteborgs Konsthall, Goeteborg, Sweden
- 2015 Igenom, Hammerkullen Konsthall, Goeteborg, Sweden
- 2015 Views, The Chemistry Gallery, Prag, Czech Republic
- 2015 Backjumps 20 + 1, Kunstraum Kreuzberg Bethanien, Berlin, Germany
- 2014 Serious TV week 47-48, Tys Exhibition Space, Stockholm, Sweden
- 2014 Nomadic Spaces & Former Future Nows, Nationalgalerie, Berlin, Germany
- 2014 Galerie Nomades, Galerie des grands bains douches de la plaine, Marseille, France
- 2013 Backjumps Christmas Spezial, Kunstraum Kreuzberg Bethanien, Berlin, Germany
- 2013 Contemporary Art, Stadtmuseum Muenchen, Muenchen, Germany
- 2013 Public Arena, Associazione Barriera, Torino, Italy
- 2013 On your marks, get set, go, Elias Canetti Society, Ruse, Bulgaria
- 2013 Tchikebe Studio, Slick Art Fair, Bruessel, Belgium
- 2012 Salat Komplett mit Alles, Rock the Block, Vierte Welt, Berlin, Germany
- 2012 Quarter 12, Chmielna, Quarter Gallery, Warszaw, Poland
- 2011 G & O, Silkscreenprints, Tchikebe Studio, Marseille, France
- 2011 Arts multimedia, ecole Superieure d Art, Aix en Provence, France
- 2011 Berliner Zimmer Genossen, Funkhaus Europa, Berlin, Germany
- 2011 Diamonds Supersentai, Lucas Carrieri Art Gallery, Berlin, Germany
- 2011 24 h Abandoned Munic, Galeria Autonomica, Muenchen, Germany
- 2011 Du mur l'atelier et l'art urbain, Addict Gallery, Paris, France
- 2010 L'art urbain...du mur l'atelier..., Addict Gallery, Paris, France
- 2010 Berlin Metting, Czech Embassy, Berlin, Germany
- 2010 Diamonds Millionen Koerper, Artitude Kunstverein, Berlin, Germany
- 2009 Muss alles raus?, Urban art info, Berlin, Germany
- 2009 Art Totale, Leuphana University, Lueneburg, Germany
- 2009 Wir sind nicht die Affen in deiner Horde, Urban art info, Berlin, Germany

### **PUBLIC PROJECTS**

- 2018 Exhibitionists, curated by Biancoshok, Elfo, Rub Kandy, Rome, Italy
- 2017 L'Action prend place, Festival Non Alignes, La Generale, Paris, France
- 2016 Behind the fence, Projectroom// S85, Berlin, Germany
- 2016 Auf der Palme, Projectroom// Big Walls, Berlin, Germany
- 2015 Goteborgs Konsthall, Tryckverkstaden, Goeteborg, Sweden
- 2014 Galerie Nomades, Galerie des grands douches de la plaine, Marseille, France
- 2013 Invisible Cities Ruse, Elias Canetti Society, Ruse, Bulgaria
- 2013 Reclaim the subway, Elias Canetti Society, Ruse, Bulgaria
- 2013 On your marks, get set, go, Elias Canetti Society, Ruse, Bulgaria
- 2012 Quarter 12, Chmielna, Quarter Gallery, Warszaw, Poland
- 2009 Art Totale, Leuphana University, Lueneburg, Germany
- 2005 City of Names, Jazzstylecorner, Kunstraum Kreuzberg Bethanien, Berlin, Germany

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### LECTURES, WORKSHOPS

- 2016 Newspaper today and Elias Canetti, lecture, Hidden Indexes, Berlin, Germany
- 2015 Artist talk with Dir. Liv Stolz, Goeteborgs Konsthall, Goeteborg, Sweden
- 2015 Studiotalk with Linda Tedsdotter, Konstepedemin, Goeteborg, Sweden
- 2015 Graffiti as a urban calligraphy, lecture, Konstepedemin, Goeteborg, Sweden
- 2015 Instinctive identities and unconsciously sym., Konstepedemin, Goeteborg, Sweden
- 2013 Invisible Cities Ruse, lecture, Ruse, Elias Canetti Society, Ruse, Bulgaria
- 2013 Human sun, lecture, Elias Canetti Society, Ruse, Bulgaria
- 2013 Reclaim the subway, workshop, Ruse, Bulgaria
- 2011 Goals & Objectives, lecture, Zinc, Arts cultures Numeriques, Marseille, France
- 2004 Typomesse, lecture, Haus der Kulturen der Welt, Berlin, Germany

### RESIDENCIES

- 2015 Artist in residence, Goeteborgs Konsthall, Goeteborg, Sweden
- 2015 Artist in residence, Iaspis, The Swedish Arts Grants, Stockholm, Sweden
- 2015 Artist in residence, Kuenstlerdorf Schoeppingen, Schoeppingen, Germany
- 2013 Artist in residence, Elias Canetti Society, Ruse, Bulgaria

### **BIBLIOGRAPHY, BOOKS, EXHIBITION CATALOGUES**

- 2018 Obfusation, exhibition catalogue, designed by Buero Bum Bum
- 2016 B.Z.Z.T. II, published by Hidden Indexes
- 2016 B.Z.Z.T. I, published by Hidden Indexes
- 2015 Open House, Iaspis grant holders, puplished by Iaspis, The Swedish Arts Grants
- 2014 Our Idols are Dead, 32 Notes on Graffiti, published by Klick Klak Magazin
- 2014 B.Z.Z.T. Newspaper, published by Markus Butkereit
- 2013 Public Arena, catalogue, published by Artegiovane, Associazione Barriera
- 2013 Left hand pieces, book, published by Markus Butkereit
- 2012 Left hand pieces sketches, book, published by Markus Butkereit
- 2011 Arts multimedia, exhibition catalogue, published by Association M2F Creations
- 2011 Diamonds Supersentai, exhibition catalogue, published by Diamonds Press
- 2010 Diamonds Millionen Koerper, exhibition catalogue, published by Diamonds Press
- 2010 Himmelfahrt Nr. 1 53, book, published by Urban art info Verlag
- 2009 Galeria Autonomica, exhibition catalogue, published by Autonomica Press
- 2007 Urban Art Photography, documentation, published by Die Gestalten Verlag
- 2007 Translatae Stillae Pluviae, Writing the memory of the city, Dokument Voerlag
- 2005 Style writing, documentation, published by Publikat Verlag
- 2005 Black Book Silkscreenprints, book, published by Fleischerei
- 2004 Writing Urban calligraphy and beyond, book, published by Die Gestalten Verlag
- 2003 Haushalten Ein Kuenstlerprojekt, catalogue, published by Galerie Pankow
- 1997 Backjumps Sketch Book, published by Backjumps Adrian Nabi
- 1995 Backjumps Train Special Book, published by Backjumps Adrian Nabi

### ARTICLES, CRITICISM AND REVIEWS

- 2018 Obfuscation, Artribune, Roma, Italy, Text: Simona Scopelliti
- 2018 Exhibitionists, Juxtapoz, Art culture, San Francisco, USA
- 2018 Exhibitionists, tgcom24, cultura Rome, Italy
- 2016 Urban Explorers, Arte Creative, video, Strasbourg, Frankreich
- 2016 Artist in residence report, Kultur i Vaest, Video, Goeteborg, Sweden
- 2015 Rockets on the Battlefield, 99 % Urban, Berlin, Germany
- 2015 To connect sign up today, Sveriges Radio, Goeteborg Sweden
- 2015 Purple Rain, Der Faktor Regen, Westfaelische Nachrichten, Germany
- 2015 Rockets on the Battlefield, Rabarnes, Madrid, Spain
- 2015 Rockets on the Battlefield, Radio Eins, Berlin, Germany
- 2015 Christmas Card, Kraftfuttermischwerk, Potsdam, Germany
- 2014 Christmas Card, Interweb 3000, Germany
- 2014 Christmas Card, Ideenzentrale, Berlin, Germany
- 2014 Galeria Autonomica, Fluctibus Magazine, Munic, Germany
- 2014 Galerie Nomades Archist 3. Goethe Institut. Marseille. France
- 2013 Public Arena, review, La Stampa, Torino, Italy
- 2013 Public Arena, critique, La Republica, Italy

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