

Paper:

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'I think what artists do is they invent strategies that allow themselves to see in a way they haven't seen before to extend their vision.

*[...] they constantly come up with ways of informing themselves by inventing tools or techniques or processes that allow them to see into a material manifestation in the way that you would not if you dealt with standardised or academic ways of thinking.'*¹

- Richard Serra

Demonstration:

'The Dramaturgy of Lime'

Lime (calcium compounds) infiltrates our everyday life. Its presence spans from an underground geological dimension to a vital bodily component. As a building material, it is deeply embedded within architectural culture and history. It assumes different forms and conditions, spanning from solid blocks - burned pieces - liquid - paste - thin layers and surfaces - stains of limescale - to dust particles. Moreover, the material serves as an intriguing subject of investigation in relation to forces, instability and change.

The exhibited work consists of a set of material experiments, investigating aesthetical and performative potentials - *the dramaturgy* - of lime. The central artefact - a large steel pool (black, d: 80 cm) containing 35 litres of lime water ($\text{Ca}(\text{OH})_2$) - is the spatial framework for the set of experiments represented in the exhibited video and photographs. Prior to the opening of the Biennale, the pool has been filled with lime water. Throughout the exhibition period, the artefact will change its appearance - making visible hidden forces and time, through processes of crystallisation, evaporation, and interference with the space and visitors, creating a work which constantly changes its material form.

weakness, instability

The work is part of the on-going PhD project *'Form(s) of Instability; Demonstrations in the Architectural Potential of Weakness'* (2017-). The project addresses the issue that architecture has become increasingly image-based, where the ideal state of a building is often conceived as immediately after being built and it appears as on the drawing. Considerable resources are used to counteract wear and tear - working against external forces and processes (entropy). Opposing the idea of maintaining the building as this ideal and static entity, the PhD project investigates *weakness* and *instability* as architectural potentials. This approach involves a dynamic relationship and exchange between materials, forces and processes.

The research project makes use of the French philosopher Georges Bataille's notions of 'formless' and 'base materialism.' The concepts were first introduced in his *Critical Dictionary*, which served as a critique of dictionaries attempt to define and freeze all the significant words in a language into stable meanings and fixed classifications.ⁱⁱ Through the concept of a base matter, Bataille promoted materiality in a non-idealised form, disturbing the hierarchy between high and low.ⁱⁱⁱ In this research project, these concepts are operative for their destabilising capacities which shake up preconceived ideas and notions, and evoke alternative possibilities.

The research is conducted as artistic architectural research and developed as a set of *Demonstrations* - consisting of interrelated research elements of *theory*, *found examples* (with an intentional weakness and utilisation of unstable properties) and *artistic architectural investigations*. Two of these examples are lime-based parge coat and lime mortar.

Due to its chemical composition and physical porosity, lime is a material which is relatively unstable and vulnerable to moisture. These properties are utilised in the weak sacrificial parge coat layer, which protects the masonry wall from rising capillary water. The water is directed upwards and outwards to the exterior lime layer, through a capillary effect in the pore structure. Salt accumulates in this layer instead of causing damage to the foundation masonry wall,^{iv} and over time, lime degenerates in favour of the bricks. The material instability and change of lime are embraced, as the damage is limited to the sacrificial layer, which is easily replaced. The changes occur slowly over an extended period.

Similarly, the properties of the open pore structure in lime are utilised as mortar. The porosity makes the lime mortar weaker than the bricks, allowing minor movements between the individual stone, which enables the masonry wall to adjust to temperature changes and subsidence caused by the instability of the ground. Minor cracks are self-healing due to the continuous crystallisation process of lime, while more serious damage is limited to the joint which is easy to repair. Subversively, the (stronger) cement mortar, favoured in recent decades, causes the bricks to break instead.^v

performative potentials

Moving from a practical perspective, the unstable properties of lime could be perceived poetically as a material which makes visible the hidden underground forces of moisture and unstable soil conditions. This way of looking draws parallels with examples from *process art* that takes advantage of material instability as aesthetic and performative drivers of change.

In his early works, Richard Serra intentionally worked with materials that possess a potential loss. *'Gutter Corner Splash: Night Shift' (1963/2018)* uses the gallery space as a container to cast lead. The work utilises the fact that the lead is more unstable than the corner gutter in contact with high temperatures. When heated, the lead undergoes a material transformation from solid to liquid and embodies a simultaneity of scatter and containment – two material extremes.^{vi} The lead is formed by the spatial delimitation, converting the juncture into a kind of mould. The casts are then pried from the wall, and displayed in the room where they were made. As lead is weak and fails to hold a static form over time, the artwork continues to develop and change after the act of creation.

Joseph Beuys' artwork *'Fat Battery' (1963)* is composed of a collection of sculptural units of various materials with degenerating potentials. A cardboard box acts as a spatial demarcation for several tin casings containing fat. Each casing is linked with strips of felt. Over time, the work has undergone significant changes. The fat has transformed from semi-solid to liquid form, flowing from its initial position and soaking into the surrounding elements of felt and corroded the metal. The most intriguing change is of the cardboard box. The material is a paper product which over time becomes increasingly acidic and brittle, and eventually loses its structural stability. However, the infiltration of fat has sealed the structure of the card – fortuitously preventing it from degrading and collapsing over time.^{vii}

These artistic examples operate as a kind of lens to look upon a common known building material as lime and approach the material changes from a more performative perspective. The most unstable material affects the other more stable material, but at the same time, the latter sets some physical restrictions or framework for the first. In Beuys' *'Fat Battery'*, it is particularly visible how the delay in time between the instability of materials is productive. Both fat and cardboard are unstable to temperature changes, but as fat is the most unstable of the two and the changes happen faster - it allows the fat to act on the cardboard before it becomes brittle.

the dramaturgy of the work

Overall, the artistic architectural production acts as thinking-devices, investigating actual materials, forces and relationships. Materials are taken out of their original spatial situation – an act of *defamiliarisation*. This artistic technique - what the Constructivists called "*Ostranenie*" – presents common things in an unfamiliar or strange way (from an exterior point of view), enhancing the perception of something which is not normally considered aesthetic^{viii} - and thereby challenging the comprehension of the material from a merely practical point of view.

The exhibited work aims to create a set-up where the instability of lime becomes exposed. Similar to Serra's *'Corner Gutter Splash'*, where the orthogonal corner gutter frames and directs the more unstable material of lead, the circular geometry of the steel pool acts as a measuring device. To be able to perceive the material instability, it needs to be measured against something which does not undergo the same rapid change and is less unstable in contact with the forces. The artist and theorist Allan Kaprow, describes how the rectangular exhibition spaces and photographic representations act relational, telling *'us how far, how big, how soft, how atmospheric, [...] how "amorphous" an art work is within these lines and corners.'*^{ix}

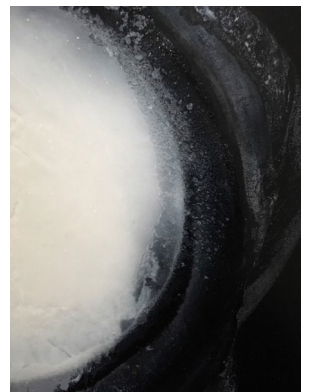
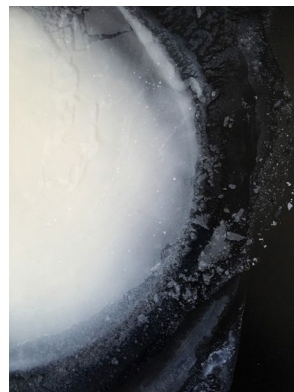
The dramaturgy of the exhibited video makes visible the relationship between material forms of lime, forces (of water and air) and actions applied upon the set-up:

First, **(1) filling** a metal container with pieces of quicklime (CaO). Then, the act of **(2) pouring** water (H₂O). As quick lime is incredibly unstable in contact with water, this serves as an act of provocation. The reaction is instant. Starting as an aggressive hissing, emission of heat is immediately materialised as mist on the camera lens. **(3) Stirring** the liquid of lime milk. Gravity settling the particles. **(4) Ladling** limewater (Ca(OH)₂) into the empty pool. The crystallisation process immediately starts when exposed to air (CO₂). First as minor disturbances on the clear surface, then materialised as (what appear to be) a solid crust. **(5) Dripping** onto and breaking the surface. Followed by **(6) rocking** the pool. Instantly the lime water re-crystallises and heals its surface – while leaving visible traces of the previous events.

The exhibited video and photos make use of an intentional confusion of scale, which might suggest that potentials of instability can be further transferred to other scales and situations.

architectural dramaturgy

The work makes visible the poetics and the multitude dimensions of an ordinary material such as lime and encourages attentiveness to the minor changes around us. Examples of parge coat, lime mortar, R. Serra and J. Beuys have demonstrated how working actively with relations between forces and degrees of instability can act as aesthetical and performative drivers of change, as well as being beneficial from a practical perspective. This suggests an alternative architectural approach which challenges the idea of architecture as a static image and instead embraces change as a visible sign of time passing - and where intentional, embedded *weakness* enables ways of acting in the uncertain.



'view from an aeroplane'

ⁱ Jonathan Munar, "Richard Serra: Tools & Strategies," Interview, *Art in the Twenty-First Century*, January 2013, <https://www.youtube.com/watch?v=G-mBR26bAzA>. (Accessed 27-09-19)

ⁱⁱ Benjamin Noys, "The Subversive Image," in *Georges Bataille: A Critical Introduction, Modern European Thinkers* (London; Sterling, Va: Pluto Press, 2000), 18–19.

ⁱⁱⁱ Benjamin Noys, "Georges Bataille's Base Materialism," *Cultural Values* 2, no. 4 (October 1998): 499–517, <https://doi.org/10.1080/14797589809359312>.

^{iv} Joseph W. Lstiburek, "Capillarity: Small Sacrifices," *Insight*, no. 11 (rev. 2014 2009): 1–6.

^v Anders Nielsen, "Længe Leve Kalkmørtlen," *Tidsskriftet Tegl*, no. 1 (2013): 30–33.

^{vi} Jeffrey Weiss, "Due Process: Richard Serra's Early Splash / Cast Works," *Artforum*, November 2015.

^{vii} Rachel Barker and Alison Bracker, "Beuys Is Dead: Long Live Beuys! Characterising Volition, Longevity, and Decision-Making in the Work of Joseph Beuys," *Tate Papers*, no. 4 (Autumn 2005), <https://www.tate.org.uk/research/publications/tate-papers/04/beuys-is-dead-long-live-beuys-characterising-volition-longevity-and-decision-making-in-the-work-of-joseph-beuys>. (Accessed 27-09-19)

^{viii} Thorsten Botz-Bornstein, "Tarkovsky's 'Logic of Dreams'," in *Films and Dreams: Tarkovsky, Bergman, Sokurov, Kubrick, and Wong Kar-Wai*, 1. ed (Lanham, MD: Rowman & Littlefield, 2008), 6–7.

^{ix} Allan Kaprow, "The Shape of the Art Environment: How Anti Form Is 'Anti Form'?", *Artforum*, 1968.