High-Vis: Imi Giese’s Sculptures with Luminescent Paint at the Kunsthalle Düsseldorf in 1978

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Abstract

In this thesis, I focus on the exhibition of a series of five sculptures in ‘Rainer Giese: Selected Works’, the solo exhibition of postwar German artist Imi Giese at the Kunsthalle Düsseldorf in 1978. Giese had painted these wood and pressboard constructions of angles and geometric shapes with green and orange phosphorescent paint, a type of luminescent paint that emits light as an afterglow. At the Kunsthalle in 1978, these five sculptures were exhibited in the dark. As one critic described, the sculptures seemed to dematerialise. At the same time, another critic recognised that Giese’s works of art were made of everyday materials, which reasserted their materiality. In this thesis, I ask what the meaning of this simultaneous immateriality and materiality of the works was at the Kunsthalle in 1978. To answer this question, I draw on Alexander Kluge and Oskar Negt’s strategy of counterpolitics in their political economy of labour power in History and Obstinacy. I argue that on the one hand, the phosphorescent colour of the works in the dark caused the effect of the sculptures’ dematerialisation. This abstraction of the works from three-dimensional painted wood and pressboard sculptures to two-dimensional geometrical notations reproduced capital’s logic of abstraction. On the other hand, the materiality of the works, which was based on the paint’s applications, one of which was its safety application, was also dialectical. It was safety technology and at the same time was a potential workplace health and safety hazard, and this opened onto another dialectic. As Marx showed in Capital, workplace health and safety regulations were the product of class struggle. The paint had the potential to be resistant to the same forces it reproduced in the seeming dematerialisation of the works, instantiating the counterpolitics of obstinacy that Kluge and Negt were writing about at the same time as the exhibition.
Declaration

I declare that the thesis comprises only my original work towards the 102FC Master of Arts (Art History); that due acknowledgement has been made in the text to all other material used; and that the thesis is fewer than the maximum word limit in length, exclusive of tables, maps, bibliographies and appendices.

Signed: 

Date: 
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Introduction

In July 1978, Katharina Schmidt, Assistant Director of the Kunsthalle Düsseldorf, wrote a letter to the public health department.¹ The Kunsthalle was planning to restore sculptures painted with luminescent paint for a posthumous exhibition of the work of the artist Imi Giese (1942-1974) in September. As the trade of some luminescent paints had been discontinued because they were potential health and safety hazards, Schmidt was writing to the public health department to ask whether the paints with which Giese had originally painted the sculptures, which he had started work on in 1966, could be used to restore and exhibit the works. In the letter, she described the works of art the Kunsthalle planned to restore: several Stäbe or beams, and a cube. Giese had painted the beams and the cube with three different green phosphorescent lacquers, a white luminescent paint ground, and a colourless luminescent paint topcoat from the Wiedolux line of paints from the company Wiederhold. He had also used another green luminescent colour from the company Leuchtstoffwerk. Eight days later, Schmidt was written a reply from the department enforcing workplace health and safety regulations.²

In this letter, the Kunsthalle was given the green light to use the five Wiedolux luminescent paints that Giese had used to restore the sculptures along with a set of safety instructions for the use of the paint. However, while in 1978 the Kunsthalle was given permission to restore the works using the Wiedolux paints Giese had used, recent restoration work on two beams painted by Giese with phosphorescent paint has shown that production of the pigment he had used on these beams has since been discontinued because of health and safety regulations.³ These luminous sculptures therefore had a

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¹ SD, Akte der Kunsthalle Düsseldorf, 0-1-4-40970.
² SD, Akte der Kunsthalle Düsseldorf, 0-1-4-40970.
³ Ellen Jansen’s recent research on the restoration of two beams painted by Giese with phosphorescent paint in the collection of the Rijksmuseum Twenthe in Enschede, The
dark side, and as I argue in this thesis, the politics of workplace health and safety regulation were part of the meaning of the works in 1978.

In the history of postwar German art, Giese has been understood as “the other Imi” to Imi Knoebel. While students at the Werkkunstschule in Darmstadt, Rainer Giese and Wolf Knoebel in a Dada-like gesture changed their first names to “Imi” (Fig. 1). After seeing a newspaper article and photograph of Joseph Beuys’ happening at the Festival der neuen Kunst (Festival of New Art) at the Technische Hochschule in Aachen in 1964 in which Beuys was assaulted by a spectator, the two Imis went in 1964 to the Kunstkademie Düsseldorf, where Beuys taught. On being admitted to the Kunstkademie, the Imis first enrolled in Walter Breker’s commercial art class. Thinking that their work would “never be good enough for sculpture”, the Imis cooked up a plan to get into Beuys’ class: “And then we figured that we would get to him

Netherlands has shown that the production of the pigment in the phosphorescent paint layer of this work has since been discontinued. “For this artwork, Giese used a commercial paint called Wiedolux. FTIR analysis showed that the zinc sulphide pigments in this paint are doped with cadmium, which has great influence on its properties. Because of health regulations this type of pigment cannot be produced anymore.” Jansen, 2014, p. 14. See also Jansen, ‘Go with the Glow’, URL: http://www.conservation-restoration-training.nl/about/objects-projects/treatment-results/go-with-the-glow/ Neither the reply to Schmidt’s letter to the public health department in 1978 nor Jansen in these sources discuss the colour from the company Leuchtstoffwerk included in Schmidt’s letter. It is possible that the work in the collection of the Rijksmuseum Twenthe was not included in the work group Sculptures with Luminescent in the catalogue ‘Rainer Giese: Selected Works’ nor exhibited at the Kunsthalle in 1978. They nonetheless have the potential to illuminate the works that were.

5 While it has often been claimed that Imi Knoebel and his friend borrowed the name from IMI laundry detergent, Knoebel himself says this story was invented. ‘We created the word in Darmstadt; when we said goodbye to each other, the term emerged somehow, it was more of a noise—an onomatopoeia in keeping with the coinages of Dadaism’. Richter, 2009, p. 20.
without showing him our work, he wouldn’t get to see anything. In fact, we were going
to do the asking, like: we need a room!” To their amazement, Beuys said yes.9

Enrolling in his class, the Imis moved into Room 19 at the Kunstakademie, the studio
next door to Beuys’ class in Room 20, where they worked with Beuys’ students Jörg
Immendorff, Blinky Palermo, and Katharina Sieverding.10 As Christine Mehring has
written, “Starting probably around the time of Palermo and Immendorff’s departure
from the academy, Giese and Knoebel began to keep the room locked and inaccessible
to other students—even to Beuys.”11 Imi Knoebel recollected a time when Beuys was
admitted to the studio to critique their work,

I had made some rectangular stretchers with bits cut out and then covered with
linen. Where the linen touched, it was lighter than where the cardboard was
missing underneath. I had made about ten of these things, and a work on tall
stilts with a white square at the top. (laughter) Very high up there was this white
square (laughter) and he said, did I want to end up like the Zero people?

(laughter) Of course I did not! Even then, they were a thorn in my hide and
much hated! It was actually a deadly insult. (laughter) After such criticism we
really had to start all over again after drinking for three days straight. Yes, that
was the beginning. Later, he just let us be. We once asked him what he thought
of our work. And he said he thought it was quite good, but he couldn’t really say
anything about it! As if he wanted to say it’s not my business but your funeral.
So we no longer went to him. This was a strategic move of ours, IMI’s and
mine, to shut ourselves in. There was no contact with Room No. 20, only from

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9 Stüttgen, 1987, p. 27.
10 On the Room 19 artists, see Küper, 1999.
time to time. We were part of Room No. 20, an appendage of the class, but separated from them all the same. From time to time we went to see what they were up to—and they were painting nudes, Anatol was painting, Tadeusz was painting—and that wasn’t our thing at all!¹²

The Imis’ “thing” was geometric abstract work. In Room 19 in 1968, Knoebel produced the work Raum 19 (Room 19) (Figs. 2 and 3). In this work, he stacked fibreboard plates, stretcher frames, arches, and blocks in piles or hung them on the wall.¹³ The works of art that Giese worked on while a student in Beuys’ class included a group of three-dimensional wood and pressboard constructions of angles and geometric shapes. Giese had painted these sculptures with green and orange phosphorescent paint, a type of luminescent paint that emitted light as an afterglow. This group of sculptures included the beams and cube Schmidt described in her letter to the public health department.¹⁴

This was not the first time that an abstract artist had used potentially unsafe materials. In 1959, the American artist Frank Stella had made two works of art with asbestos tape.¹⁵ In The First Post Cubist Collage (Fig. 4), Stella stuck pieces of the tape, which had a red line printed on it, on an almost-square board, arranging the red lines on

¹² Knoebel cited by Stüttgen, 1987, p. 27. “The Zero people” who Knoebel talked about would have been the group of artists, Zero. In Düsseldorf, this group included Heinz Mack, Otto Piene, and Günther Uecker.
¹⁴ Schmidt’s description of the Stäbe in her letter differed in part from the description in the exhibition catalogue of ‘Rainer Giese: Selected Works’ of the Leuchtstäbe, as the beams painted with luminescent paint were called in the catalogue. However, as she called the works Stäbe in the letter and her description of them was closest to the description of the Leuchtstäbe out of the sculptures painted with luminescent paint described in the catalogue, it is likely that she was referring to the Leuchtstäbe, five of which—three green and two orange—were included in the exhibition at the Kunsthalle Düsseldorf in 1978. SD, Akte der Kunsthalle Düsseldorf, 0-1-4-40970; Düsseldorf, 1978, p. 7.
¹⁵ Frank Stella, The First Post Cubist Collage, 1959. 51.8 x 51.4 x 2.2 cm, printed asbestos tape on board. Yale University Art Gallery, 1984.43.1. The Last Cubist Collage is lost.
the pieces of tape to form a structure of concentric diamonds. Caroline Jones has suggested that the tape Stella used was a housing construction material.\textsuperscript{16} Asbestos has fire resistant properties, however five years after Stella made \textit{The First Post Cubist Collage}, with the New York Academy of Sciences conference on asbestos, the mineral became a public health issue in the United States.\textsuperscript{17} When the solo exhibition of Giese opened at the Kunsthalle Düsseldorf on 2 September 1978, the works of art on view included five sculptures that Giese had painted with paint that, like the asbestos tape in Stella's work, had health or safety applications and at the same time was a potential workplace health and safety hazard, as Schmidt’s letter to the public health department showed.

\textsuperscript{16} Jones, 1996, p. 143.
\textsuperscript{17} Maines, 2005, p. 20; McCulloch and Tweedale, 2008, pp. 15, 70. In \textit{Asbestos and Fire: Technological Trade-offs and the Body at Risk}, Rachel Maines has argued that asbestos minimised the risk of fire in the United States, which changed perception of fire risk. With this change in risk perception, the health and safety risk of asbestos became an issue. See Maines, 2005. However, in \textit{Defending the Indefensible: The Global Asbestos Industry and its Fight for Survival}, Jock McCulloch and Geoffrey Tweedale argued, “The industry’s defence has recently been resurrected and elaborated by Rachel Maines in her book \textit{Asbestos and Fire}, which emphasises the historic merits of asbestos in fire protection and the trade-offs between asbestos health hazards and fire risks. Like the industry’s propaganda in the 1970s, these safety aspects of asbestos are overdrawn. Asbestos had proved remarkably utilitarian and it had provided fire protection: but drawing a connection between asbestos use and the thousands of lives supposedly lost (or saved) from fires or other accidents is simplistic. Multiple factors are involved in fire mortality, as in other aspects of industrial hazard. These include building code changes, fire alarms, sprinklers, occupancy limits, and improved design of buildings for rapid exit. As regards fire protection in buildings, concrete encasement and man-made fibres have proved as reliable as asbestos in preventing conflagrations, which is why it has been relatively easy for modern skyscraper builders to dispense with the mineral. Historically, the majority of asbestos used has been in a/c building panels, roof sheets, and water pipes in which the fibre is used as a non-corrodible and tough reinforcer rather than as a fire protector. To be sure, technical problems sometimes arose in the introduction of substitutes in some products (e.g. in brake linings), but these were not insurmountable. The main reason that the companies were reluctant to abandon asbestos was cost and profits: concrete encasement was calculated to be at least two-and-a-half times more expensive than asbestos, and ceramic fibres twenty times more expensive. No one factored in the associated health costs or the fact that asbestos had often been mined under appalling labour conditions.” McCulloch and Tweedale, 2008, p. 91.
In one room in the Kunsthalle, a sculpture in the shape of a right angle leant against the wall. Giese had joined two 110 cm-long wood beams with 5 x 5 cm cross sections at an angle of ninety degrees to form this shape.\(^{18}\) Against the same wall, five *Leuchtstäbe*, wood beams the same dimensions as the beams in the right angle, leant parallel to one another.\(^{19}\) A 110 x 110 cm wood square frame leant against the opposite wall.\(^{20}\) From another wood right angle, this time flat on the floor, a beam projected upwards at an angle of sixty degrees.\(^{21}\) On the floor was the pressboard cube with an open top from Schmidt’s letter to the public health department.\(^{22}\) At the Kunsthalle in 1978, these sculptures were exhibited in the dark. Painted with phosphorescent paint, the sculptures glowed (Fig. 5).

Critics saw these works of art differently. As one review of the exhibition showed, the Giese’s luminous sculptures looked to some viewers as if they had dematerialised.\(^{23}\) At the same time, another critic recognised that Giese had made his works of art with everyday materials.\(^{24}\) In this thesis, I aim to answer the question of what this simultaneous dematerialisation and insistent (or, as I argue, resistant) materiality of the five luminous sculptures meant in the solo exhibition of Giese at the Kunsthalle Düsseldorf in 1978.

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\(^{18}\) Imi Giese, *Rechter Winkel (Right Angle)*, c. 1966. 110 x 110 cm, wood and Wiedolux phosphorescent paint.

\(^{19}\) Imi Giese, *4 Leuchtstäbe*, c. 1966. 5 x 5 x 110 cm, wood and Wiedolux phosphorescent paint.

\(^{20}\) Imi Giese, *Quadratischer Rahmen (Square Frame)*, c. 1966. 110 x 110 cm, wood and Wiedolux phosphorescent paint.

\(^{21}\) Imi Giese, *Rechter Winkel mit im Winkel von 60° hochstehender Diagonale (Right Angle with Upright Diagonal at an Angle of 60°)*, c. 1966. 60 x 110 x 100 cm, wood and Wiedolux phosphorescent paint.

\(^{22}\) Imi Giese, *Würfel (oben offen) (Cube (Open Top)),* c. 1966. 52 x 52 x 52 cm, pressboard and Wiedolux phosphorescent paint.

\(^{23}\) Haase, 1978.

\(^{24}\) AKD, Akte Giese, Imi.
The problem of the dematerialisation and materiality of the sculptures Giese painted with luminescent paint has arisen in the literature on the sculptures. In an essay published in the catalogue of ‘IMI Giese’, the solo exhibition of the artist that toured the Kunstverein Munich, Kunsthalle Zurich, and Neue Galerie am Landesmuseum Joanneum in Graz in 1993/94, Johannes Meinhardt wrote of Giese’s early sculptures, including the luminous sculptures,

The first of these sculptures or room markers were beige or yellow, the majority are however painted with yellow phosphorescent paint: when they are seen in darkness, they represent a line figure, which spatially can no longer be located, which can be perceived equally as a flat as a spatial construction.25

In this essay, Meinhardt writes of Giese’s works in the context of the phenomenological discourse on American Minimalism.26 “Perception itself, which mediates connection to the object, became problematic … the process of perception itself became the key object of analysis for art.”27 Meinhardt argued that the sculptures Giese had painted with luminescent paint were perceptible as both two- and three-dimensional in the

25 „Die ersten dieser Skulpturen oder Raummarkierungen waren beige oder gelb, die meisten aber sind mit gelber Leuchtlackfarbe gestrichen: wenn sie bei Dunkelheit gesehen werden, zeigen sie eine Linienfigur, die sich räumlich nicht mehr orten lässt, die genausogut als flächige wie als räumliche Konstruktion wahrgenommen werden kann.” Meinhardt, 1993, p. 44.
26 Meinhardt had published an essay on the work of Giese in the catalogue of the 1987 group exhibition ‘Brennpunkt Düsseldorf’ in which three of Giese’s sculptures with luminescent paint were exhibited. The essay had opened, “IMI Giese, who together with his friend Imi Knoebel was in Beuys’ class, left behind a very pure, very conceptual oeuvre, which however outreaches every Minimal or Conceptual context”. “Rainer Giese, der zusammen mit seinem Freund Imi Knoebel bei Beuys in der Klasse war, hat ein sehr pures, sehr konzeptuelles Oeuvre hinterlassen, das aber entscheidend über jeden Minimal- oder Concept-Zusammenhang hinausreicht”. See Meinhardt, 1987, p. 205.
context of his argument that “The interleaving and fusing together of surface and space in preobjective perception transpires more and more clearly as Giese’s central problem: something to see as a two-dimensional surface is in the same way a *Gestaltbildung*, the construction of an object of consciousness, as something to perceive as a three-dimensional body.”

In a review of the Graz installation of ‘IMI Giese’ published in *Artforum*, Christian Kravagna writes of Giese’s luminous sculptures,

As early as 1966, his light sculptures reveal his fundamental intentions: the construction of elementary plastic forms to create perceptual situations with the goal of questioning the relationship between object and space, viewer and object, including the conditioning of perception. In a darkened space, yellow- or orange-coloured geometric shapes seem to float. They are made from wood pieces that have been painted with a reflective paint. Perception is also a game of the body’s movements in its search for spatial orientation and a temporally structured act of producing a relationship between the subject and his surroundings.

Like Meinhardt, Kravagna gives a phenomenological reading of the luminous sculptures which “seem to float” in the dark. Writing for an American audience, he described the

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28 “Als zentrales Problem Gieses stellte sich immer deutlicher die Verwicklung und Ineinanderwicklung von Fläche und Raum in der vorobjektiven Wahrnehmung heraus: etwas als zweidimensionale Fläche zu sehen, ist genauso eine Gestaltbildung, die Konstruktion eines Bewusstseinsgegenstandes, wie etwas als dreidimensionalen Körper wahrzunehmen.” Meinhardt, 1993, p. 43. Rosalind Krauss has written of preobjective experience, “For it is the immersion of the body in the world, the fact that it has a front and a back, a left and a right side, that establishes at what Merleau-Ponty calls a level of ‘preobjective experience’ a kind of internal horizon which serves as the precondition of the meaningfulness of the perceptual world.” Krauss, 1990, p. 9.

works as handmade Dan Flavins: “If one is reminded of Dan Flavin’s works here, Giese’s European attitudes become apparent; he did not use industrial products but, rather, produced the individual pieces himself.”

In *Minimalism in Germany: The Sixties*, the catalogue of two group exhibitions at Daimler Contemporary in Berlin in 2010 and 2012, David Riedel describes Giese’s sculpture *Fünf Leuchtstäbe*, one of the five luminous sculptures on view in ‘Rainer Giese: Selected Works’, as follows:

The sculptures produced from 1966 onwards, finished in Wiedolux lacquer, represent an extraordinary series of works in this context. *Fünf Leuchtstäbe* (Five Neon Tubes), wooden beams measuring 110 x 5 x 5 cm and painted bright yellow and orange, are alternated and seem as though they could be extended into infinity. Giese stipulates how the *Leuchtstäbe* are to be presented, either at an angle of 60° to the wall or arranged on the floor as rectangles, squares or at right angles, so that the three-dimensional forms look light and *as though drawn* in a dark space.

Like Meinhardt who described the works as perceptible as both two- and three-dimensional, and Kravagna who described the sculptures made of wood as ‘seeming to float’ in the dark, Riedel wrote of the sculptures as looking like drawings in a dark space. This description was published in a catalogue in which the editor, Renate Wiehager, argued for a “home-grown German Minimalism”.

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32 Wiehager, 2012, p. 16.
In this literature, the simultaneous dematerialisation and materiality of the sculptures Giese had painted with luminescent paint when exhibited in the dark—perceptible as both two- and three-dimensional, wood sculptures that “seem to float”, and sculptures that look like drawings—has been written of in the context of Minimalist Art. What is missing in this literature, which focuses primarily on transatlantic debates relating to postwar art movements, is the broader significance of the dialectic between materiality and immateriality in the works, an issue which this thesis seeks to address.³³

In tackling this question, I have chosen to write about these works as they were presented and received in a particular exhibition which took place after the artist’s death. Significantly, the technological, radiant, and radioactive-looking colour of the works as they were displayed in the dark at the Kunsthalle differed from their colour in light, which was pastel-hued (Fig. 6). This difference between the daylight colour of the works and their luminosity in the dark demonstrates that the apparent colour of the works was dependent upon their particular display conditions. As this thesis is about the exhibition and consumption of these works of art in 1978, the focus will be primarily upon how the works related to the artistic, political and economic context of 1970s West Germany, rather than the artist’s original intention in making the works. In my analysis, which relies on a close visual reading of the sculptures, as well as the reception of the works by contemporary critics, I argue that the relationship of these works of art in ‘Rainer Giese: Selected Works’ at the Kunsthalle Düsseldorf in 1978 to this context was mediated by their phosphorescent colour: the interlacement of the colour of the works

with their presentation, the meaning of this colour to critics reviewing the exhibition, the application possibilities of the paint in West Germany in the 1970s, and the politics of the health and safety regulations of the work of restoring the works for the exhibition.

In the first two chapters, I analyse the visual effects of the works, and in the third chapter, I analyse how these relate to the political economic context of the exhibition. In chapter 1, I investigate the cause of what one critic described as the works’ seeming loss of materiality. As I argue, this dematerialisation of the works was brought about by their green and orange phosphorescent colour and their display in a darkened room under conditions of limited visibility. In chapter 2, I argue that the same paint that in the dark at the Kunsthalle caused the effect of the seeming dematerialisation of the sculptures simultaneously had the opposite effect. As another critic recognised, Giese had made his works of art out of everyday materials. As I show, the Wiedolux phosphorescent paint that Giese had painted the sculptures with had health or safety applications that likely arose in part out of the same phosphorescent properties that had caused the effect of the sculptures’ dematerialisation. That this luminous colour of the works caused both their seeming dissolution and reasserted their materiality produced a dialectic in the solo exhibition of Giese at the Kunsthalle Düsseldorf in 1978.

In chapter 3, I pose the question of what this dialectic meant in the Federal Republic of Germany in the late 1970s. In response, I draw on Alexander Kluge and Oskar Negt’s political economy of labour power in *History and Obstinacy*. First published in Germany in 1981, this book arose out of the same context as the exhibition ‘Rainer Giese: Selected Works’. As Kluge and Negt write, the question Marx

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34 *History and Obstinacy* is a revised edition and English-language translation of *Geschichte und Eigensinn*. In this thesis, I work from *History and Obstinacy*, and reproduce the formatting of the text when quoting.
had asked in *Capital* was, “*If capital could speak, how would it explain itself? Can capital say ‘I’?*”35 The subject of *History and Obstinacy* is the “polar opposite” of Marx’s political economy of capital—a political economy of labour power.36 As I argue, the phosphorescent paint with which Giese had painted the sculptures brought about a dialectic of immateriality and materiality in the works. The works’ materiality, which was based on the paint’s safety applications, was also dialectical. It was both a safety technology and at the same time a potential workplace health and safety hazard, and this in turn opened onto yet another dialectic. As Marx showed in *Capital*, workplace health and safety regulations were the product of class struggle.37 Like Kluge and Negt’s political economy of labour power in *History and Obstinacy* and workplace health and safety regulation, Giese’s sculptures were related to labour power—“the soft tissue of capitalism”—and therefore, as I will argue, were about resistance.38

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35 Kluge and Negt, 2014, p. 120. Emphasis original.
36 Kluge and Negt, 2014, p. 120.
38 Fore, 2014, p. 22.
Chapter 1: Immaterial

Visitors to the Kunsthalle Düsseldorf in September 1978 would have seen an exhibition of works by the artist Imi Giese. On view in ‘Rainer Giese: Selected Works’ was a selection of works from the estate of the artist, who had died four years earlier. Curated by Katharina Schmidt, the exhibition included drawings, photo works, projections, and sculptures, and was the first solo exhibition of Giese of its scale. Three years earlier, in the 1975 edition of a calendar issued by the municipal savings bank in Düsseldorf and titled Düsseldorfer Künstler Heute (Düsseldorfer Artists Today), the director of the Kunsthalle, Jürgen Harten, had written that the institution ‘had been planning a solo exhibition of Giese before the death of the artist’ in 1974. A photograph by Giese of a yellow-coloured angle made up of the numbers 1 to 9 on a black background had been

39 The exhibition travelled to the Kunstraum Munich, where it was on view from 23 January to 10 March, 1979.  
40 Giese’s work had been shown in other solo exhibitions before the Kunsthalle Düsseldorf in 1978. In 1969, Giese had shown a work at the gallery art & project in Amsterdam in which he placed black plastic numbers from 1 to 72 on the floor of the gallery at the intersections of an invisible line that, drawn from the corner of the room at an angle of sixty degrees, bounced off the walls of the gallery at right angles. See Art & Project Bulletin, 1969; Kravagna, 1994; Meinhardt, 1993, pp. 45-46; Düsseldorf, 1978, p. 12. In 1974, the year Giese died, art & project mailed out a bulletin with a work by Giese. The Museum of Modern Art, New York has described these bulletins as an exhibition site. See Art & Project Bulletin, 1974; ‘In & Out of Amsterdam’, URL: http://www.moma.org/visit/calendar/exhibitions/982 In July 1974, an untitled work of eight pencil drawings on transparent paper Giese had made with a compass the year before was shown at Galerie Konrad Fischer at 12 Neurückstrasse in Düsseldorf, the gallery opened by Capitalist Realism artist Konrad Lueg in 1967. See Fischer, 1993, p. 108. ‘Rainer Giese: Selected Works’ was however the first solo exhibition of Giese of its scale. In her letter to the public health department, Schmidt described the upcoming exhibition at the Kunsthalle as “the first exhibition” of Giese, and wrote of Giese’s works in the exhibition catalogue, “When they are seen now for the first time and are shown in a selection from the estate, which only here found consideration and which contains the majority of the works”. SD, Akte der Kunsthalle Düsseldorf, 0-1-4-40970; Schmidt cited by Düsseldorf, 1978, p. 6. Amine Haase wrote in her review of the exhibition, “It is to the credit of the Düsseldorf Kunsthalle, in particular Katharina Schmidt, that now a first view of the whole work of Giese can be cast.” Haase, 1978.  
chosen as the calendar image for the month of November. Three years later when the solo exhibition of Giese finally opened at the Kunsthalle, a group of five sculptures included in the exhibition—in spite of their three-dimensionality—may have evoked for viewers a flat image similar to the angle of yellow numbers on a black ground reproduced in the calendar.

Giese had painted these wood and pressboard constructions of angles and geometric shapes with green and orange phosphorescent paint, and at the Kunsthalle in 1978 they were exhibited in the dark. As the accounts of contemporary critics demonstrate, to some viewers, the sculptures seemed to dematerialise and become luminous notations of angles and geometric shapes. Hence, the seeming dematerialisation of the wood and pressboard sculptures painted with luminescent paint on view in the 1978 exhibition had been foreshadowed by the calendar published by the Düsseldorf municipal savings bank. What could this similarity between a publication issued by a financial institution and the five sculptures painted with luminescent paint presented in the 1978 exhibition of the artist at the Kunsthalle Düsseldorf have meant? As I argue later in this thesis, the two were closely interrelated. In this chapter, I begin by investigating how this effect of the works’ seeming immateriality was caused by their phosphorescent colour in the darkened room at the Kunsthalle.

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In one of the Kunsthalle’s rooms were five wood and pressboard sculptures that Giese had worked on since 1966. Leaning against one of the walls was a sculpture in the shape of a right angle. Giese had joined two 110 cm-long wood beams with cross sections of 5 x 5 cm at an angle of ninety degrees to form this right angle-shaped sculpture. An inverted V-shape, the right angle itself leant against the wall at an angle.

Against the same wall, five Leuchtstäbe, wood beams of the same dimensions as the

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45 Imi Giese, Rechter Winkel (Right Angle), c. 1966. 110 x 110 cm, wood and Wiedolux phosphorescent paint.

46 In the exhibition catalogue Minimalism in Germany: The Sixties, the title of this artwork, Fünf Leuchtstäbe, was translated into English as Five Neon Tubes. Renate Wiehager, the editor of the catalogue, argued for a “home-grown German Minimalism”, and this translation alluded to the fluorescent tubes of American artist Dan Flavin, works associated with Minimalism. See Wiehager, 2012, p. 16. In Christine Mehring’s monograph on Blinky Palermo, who shared the studio Room 19 at the Kunstakademie Düsseldorf with Giese, Palermo’s 1968 work Blaue Scheibe und Stab was translated into English as Blue Disc and Staff. Mehring discussed this work in a chapter on Palermo’s objects, which she argued challenged Romanticism, expressionism, and “spiritual” art, which were associated with Beuys, whose “signature motif” was the staff. Mehring, 2008, pp. ix, 18-19. These different translations of the word “Stab” show the different valences of the word. In this thesis, I translate Leuchtstäbe as Light Beams because, like “Stab” in German, the word “beam”—one possible translation of Stab—has different valences in English, and these allude to the contradiction in the works of art in 1978. On the one hand, a beam is a construction material, and this allusion to the wood beams’ construction application asserts the materiality of the works. On the other hand, these wood beams were painted with luminous paint and “beam” could also mean beam of light, thus alluding to the effect of the immateriality of the works, which, as I argue was caused by the phosphorescent paint. On the materiality of light, see Meinhardt, 1993, p. 43: “Light is, in so far as it is itself visible as marking and as spatial projection, at the same time however makes things visible, linear, flat, and
beams in the right angle, leant parallel to one another. The exhibition catalogue described three possible installations of the beams. “They can be laid parallel at a distance of 5 cm, as a square at a distance of 30 cm or diagonally in the space at an angle of 45 degrees from the corner” (Figs. 7 and 8). A 110 x 110 cm wood square frame leant against the opposite wall to the right angle and Stäbe. As the catalogue described, this square frame “can be placed lying flat on the floor in the middle of the room or upright in the corner of the room such that its bottom edge represents the hypotenuse of an isosceles right angle triangle composed of the two walls of the room.” From another wood right angle, this time flat on the floor, a beam projected upwards at an angle of sixty degrees. Also on the floor was a 52 x 52 x 52 cm spatial at once; phenomenally, however it is dimensionless, deep and dense.” “Licht ist, insoweit es selbst als Markierung und als räumliche Projektion sichtbar ist, zugleich aber die Dinge sichtbar macht, linear, flächig und räumlich in einem; phänomenal aber ist es dimensionlös, tief und dicht.”

Imi Giese, 4 Leuchtstäbe (4 Light Beams), c. 1966. 5 x 5 x 110 cm, wood and Wiedolux phosphorescent paint.

„Sie können parallel im Abstand von 5 cm, als Quadrat im Abstand von 30 cm oder in einem Winkel von 45° aus der Ecke diagonal in den Raum gelegt werden.” Düsseldorf, 1978, p. 7. In ‘Rainer Giese: Selected Works’, five beams were exhibited, however in the exhibition catalogue, the title of the work was 4 Light Beams, and not five. The square formation described in the catalogue would have been impossible with five beams. In a photograph, four of the beams were placed on the floor with their long sides parallel to one another. As the cross section of each beam was 5 x 5 cm, the four beams and the 30 cm distances between each beam added up to 110 cm. Given that this equalled the length of each beam, a square was formed. It seems that Light Beams and Square Frame were installed differently in 1978 to the descriptions of their installation possibilities in the exhibition catalogue.

Imi Giese, Quadratischer Rahmen (Square Frame), c. 1966. 110 x 110 cm, wood and Wiedolux phosphorescent paint.


Imi Giese, Rechter Winkel mit im Winkel von 60° hochstehender Diagonale (Right Angle with Upright Diagonal at an Angle of 60°), c. 1966. 60 x 110 x 100 cm, wood and Wiedolux phosphorescent paint.
pressboard cube with an open top. If the foregoing description of the works sounds technical and repetitive, it reproduces the precision and repetition of the works themselves and their installation in the exhibition at the Kunsthalle. However, in spite of the precision of these objects and their placement in the gallery, the boundaries of the objects—and that they were in fact objects—were not clear to viewers.

In her review of the exhibition, the critic Amine Haase wrote of these sculptures, “The angle constructions (since 1966) painted with luminescent paint then seem to lose their materiality.” Haase saw the different works by Giese in the

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52 Imi Giese, Würfel (oben offen) (Cube (Open Top)), c. 1966. 52 x 52 x 52 cm, pressboard and Wiedolux phosphorescent paint.
53 A copy of this article found in Giese’s file in the Archiv der Kunstakademie Düsseldorf is annotated “R.P”. Haase had written two articles about an exhibition of Palermo in Krefeld the year before for Rheinische Post, and it is possible that this review was published in Rheinische Post. See Mehring, 2008, p. 278.
54 “Die mit Leuchtfarben gestrichenen Winkelkonstruktionen (ab 1966) scheinen sich dann aus jeder Materialität zu lösen.” Haase, 1978. Giese had produced other works with luminescent paint, however the date of the works Haase described, “since 1966”, matched the date of the group of works Sculptures with Luminescent Paint in the catalogue of the 1978 exhibition at the Kunsthalle Düsseldorf, and her description of their seeming dematerialisation resounded in later descriptions of the works. In 1993, Johannes Meinhardt wrote, “Die ersten dieser Skulpturen oder Raummarkierung waren beige oder gelb, die meisten aber sind mit gelber Leuchtlackfarbe gestrichen: wenn sie bei Dunkelheit gesehen werden, zeigen sie eine Linienfigur, die sich räumlich nicht mehr orten lässt, die genausogut als flächige wie als räumliche Konstruktion wahrgenommen werden kann.” “The first of these sculptures or room markers were beige or yellow, the majority are however painted with yellow phosphorescent paint: when they are seen in darkness, they represent a line figure, which spatially can no longer be located, which can be perceived equally as a flat as a spatial construction.” Meinhardt, 1993, p. 44. In 1994, Christian Kravagna wrote of Giese’s light sculptures in a review of the Graz installation of the touring exhibition ‘IMI Giese’, “In a darkened space yellow- or orange-coloured geometric shapes seem to float. They are made from wood pieces that have been painted with a reflective paint.” Kravagna, 1994. In Minimalism in Germany: The Sixties, “Giese stipulates how the Leuchstäbe are to be presented, either at an angle of 60° to the wall or arranged on the floor as rectangles, squares or at right angles, so that the three-dimensional forms look light and as though drawn in a dark space.” My emphasis. Riedel, 2012, p. 258.
exhibition as indivisible from one another, their unity “based on a number cosmos, which Giese extended to his artistic universe.”

The early paper works from 1963 to 1971 signed with “Giese IMI” are already based on triangle forms, parallelograms, diagonal crosses. The angle constructions (since 1966) painted with luminescent paint then seem to lose their materiality. The pressboards and hardboards painted with graphite are so rigorously mathematically constructed that the angles at which the boards are related to one another seem almost more important than the stereometric bodies themselves. There are also the number-filled pages, in which the sequence of numbers is the picture, the strokes from number to number the form.

Like the hardboard and pressboard elements painted with graphite also on view in the exhibition that seemed less important than the angles between the boards, the materiality of the luminous sculptures was eclipsed by their geometry. This review showed that to one visitor to the solo exhibition of Giese at the Kunsthalle Düsseldorf in 1978, the sculptures looked as if they were immaterial. However, the three-dimensional wood and pressboard sculptures painted with luminescent paint would not have seemed to dematerialise simply by the force of Haase’s argument that Giese’s works were a

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unity based on a “number cosmos”. The luminous sculptures themselves and the way they were displayed had something to do with it. As Haase mentioned in her review, Giese had painted the sculptures with luminescent paint, and I argue that it was this luminous colour of Giese’s works that was the primary cause of the effect of the works’ dematerialisation. Another reviewer saw Giese’s works differently to Haase, and as I will argue later in this thesis, the phosphorescent colour of the sculptures reasserted their materiality. As I will argue, this dialectic of immateriality and materiality in the works intersected with political economy in the Federal Republic of Germany in the late 1970s. In this chapter, however, the focus remains upon what caused the works’ seeming loss of materiality.

Giese had painted the sculptures with green and orange phosphorescent paint, a type of luminescent paint. To show how this paint caused the effect of the dematerialisation of the sculptures described by Haase, it helps to understand its properties. As M. G. Martindill has described, “A conventional orange pigment, for instance, will reflect orange wavelengths while absorbing most of the others. A luminescent orange pigment will not only reflect orange light while absorbing most of the rest but will also reemit some of that absorbed energy as orange light.” With fluorescent paints, another type of luminescent paint, light is emitted after absorption almost always instantaneously. Phosphorescent paints, however, emit light as an afterglow because the process of absorbing and reemitting light is longer. Giese had painted some of the wood beams and the cube with three different green phosphorescent lacquers, a white luminescent paint ground, and a colourless luminescent paint topcoat.

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57 Martindill, 1988, p. 187. I am grateful to Ellen Jansen for recommending this article.  
from the Wiedolux line of luminescent paints by the company Wiederhold. He had also used another green luminescent colour from the company Leuchtstoffwerk. What Haase had not mentioned in her review was that at the Kunsthalle Düsseldorf in 1978, the five sculptures that Giese had painted with green and orange Wiedolux phosphorescent paint were exhibited in the dark (Fig. 5). Because phosphorescent paints emit light as an afterglow—due to the time they take to absorb and reemit light—the luminosity of the paint Giese had used was visible because the works were shown in the dark. The five beams on view at the Kunsthalle were included in the group exhibition ‘Minimalism Germany 1960s’ at Daimler Contemporary in Berlin in 2010. In an illustration of the work in the catalogue Minimalism in Germany: The Sixties, the sculpture was installed in the same way as in 1978—five beams painted alternately green or orange, leaning vertically against the wall parallel to one another. However, in this image the work was exhibited in a lit space and not in the dark. In contrast to the green and orange afterglow of the sculpture in the darkened room at the Kunsthalle—technological, radiant, and radioactive-looking—the colour of the same sculpture was pastel-hued when exhibited under illumination (Fig. 6). Significantly, the particular phosphorescent colour of Giese’s works was only visible in the dark, and this

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60 SD, Akte der Kunsthallo Düsseldorf, 0-1-4-40970. Schmidt detailed the paints with which Giese had painted several Stäbe and a cube in a letter to the public health department on 5 July 1978. Her description of the Stäbe in her letter differed in part from the description in the exhibition catalogue of ‘Rainer Giese: Selected Works’ of the Leuchtstäbe, as the beams painted with luminescent paint were called in the catalogue. However, as she called the works Stäbe in the letter and her description of them was closest to the description of the Leuchtstäbe out of the sculptures with luminescent paint described in the catalogue, it is likely that she was referring to the Leuchtstäbe, five of which—three green and two orange—were included in the exhibition at the Kunsthalle Düsseldorf in 1978. Düsseldorf, 1978, p. 7.

61 Jansen, conversation.
darkness had a history to which the exhibition at the Kunsthalle Düsseldorf in 1978 was closely related.  

In his history of artificial darkness in the nineteenth and early twentieth centuries, Noam Elcott has argued that the dispositif of artificial darkness developed at two sites that were dialectical opposites: the black screen and the dark theatre. The first site was the Physiological Station, French physiologist Étienne-Jules Marey’s physiological laboratory in Paris in the 1880s. Elcott describes this laboratory as a shed on the Parc des Princes in the Bois de Boulogne (Fig. 9). One side of this construction was open, and Marey photographed human bodies in front of it, exposing the photographic plate multiple times, the shed’s black-painted and black velvet-lined interior trapping light. In one experiment, human models dressed in black bodysuits with metal buttons affixed to their joints and pieces of metal to their limbs were photographed running in front of the black screen (Fig. 10). In the “chronophotograph” Marey developed, the black bodysuited-human bodies were invisible against the two-dimensional black screen, the bodies visible only as dots and lines (Fig. 11). As Elcott writes, “Before the black screen, humans were transposed into graphic notations.” If Marey’s Physiological Station was a black screen in a sunlit field, the stage in Richard Wagner’s Festival Theatre at Bayreuth was its dialectical opposite: a luminous screen in a dark theatre.

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62 Elcott, 2016, p. 4.  
63 Elcott, 2016, pp. 1-17. Elcott draws on Foucault’s definition of dispositif as a “thoroughly heterogeneous ensemble consisting of discourses, institutions architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions – in short, the said as much as the unsaid. Such are the elements of the apparatus (dispositif). The dispositif itself is the system of relations that can be established between these elements.” Foucault cited by Elcott, 2016, p. 11.  
65 Elcott, 2016, p. 27.  
As Elcott has argued, Wagner’s Festival Theatre was not the first dark theatre, “Instead, he assembled its elements properly” and persuaded European bourgeois and aristocratic audiences, who were used to frequenting illuminated theatre auditoriums “to see and be seen”. The elements of the dark theatre that Wagner ‘assembled properly’ at Bayreuth were, darkening the auditorium; hiding the orchestra and edge of the stage (Fig. 12); lighting special effects; fan-shaped, amphitheatre seating; and a double proscenium, which created “the singular illusion of an apparent throwing-back of the scene itself, making the spectator imagine it quite far away, though he still beholds it in all the clearness of its actual proximity; while this in turn gives rise to the illusion that the persons figuring upon the stage are of larger, superhuman stature” (Fig. 13). The final element was “The space above the invisible orchestra and between the proscenia, that space which separated “reality” from “ideality”, called “the mystical abyss”. In this “spaceless darkness” the spectators themselves ‘disappeared’, and were ‘transplanted upon the stage’, in Wagner’s words. As Elcott writes, “Finally, just as modernism asserted the materiality of the sign, artificial darkness enabled the spectral virtuality of the body. Whether in Wagner’s dark theatre or before Marey’s black screen, spacelessness was the condition through which the physical space of bodies fused with the virtual space of images.” The disembodiment of human beings in front of the black screen of the Physiological Station or as operagoers sitting in the dark theatre of Wagner’s Festspielhaus in Bayreuth arose in postwar installation art. Elcott has written, “The sense of disembodiment and spatial dislocation familiar in the cinema—and equally pronounced before the black screen—is completely reversed when

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67 Elcott, 2016, pp. 47, 51.
68 Elcott, 2016, pp. 52-59.
69 Elcott, 2016, p. 54.
70 Elcott, 2016, pp. 55-56.
71 Elcott, 2016, pp. 55-56.
72 Elcott, 2016, pp. 51-52.
one is forced to grope in pitch blackness.”73 Furthermore, he argues, “If as Eugène Minkowski asserted and Maurice Merleau-Ponty echoed, night ‘is pure depth without foreground or background,’ artificial darkness is pure surface without space.”74 However, as Claire Bishop has shown in her 2005 history of installation art, the disembodiment and spatial dislocation in the artificial darkness Elcott describes does in fact transpire in pitch-black installations.75

Bishop opposes “dark installations” to Minimalism and Postminimalist installation art.76 She quotes Minimalist artist Robert Morris, who wrote in 1966 in ‘Notes on Sculpture, Part 2’,

The better new work takes relationships out of the work and makes them a function of space, light, and the viewer’s field of vision. The object is but one of the terms in the newer aesthetic. It is in some way more reflexive, because one’s awareness of oneself existing in the same space of the work is stronger than in previous work, with its many internal relationships. One is more aware than before that he himself is establishing relationships as he apprehends the work from various positions and under varying conditions of light and spatial context.77

This was expanded by some Postminimalist works, including feminist artworks in which the phenomenological subject of Minimalism became gendered, and in works of institutional critique the power relations of the neutral architectural container of

73 Elcott, 2016, p. 8.
74 Elcott, 2016, p. 8.
75 Bishop, 2005, pp. 82-84.
76 Bishop, 2005, pp. 82-84.
77 Morris cited by Bishop, 2005, p. 56. Bishop’s emphasis.
Minimalist works were exposed. Bishop writes of Minimalist and Postminimalist works as “heightening awareness of our perceiving body”. Postminimalist installations are invariably spaces of light, where the body’s physical limits are established and affirmed by their relationship to the sensible coordinates of a given space. In contrast, Bishop contends that in dark installations, “I have no sense of where ‘I’ am because there is no perceptible space between external objects and myself.” In her history of dark installations, Bishop focuses on the dissolution of the body of the viewer. However, her critique can be extended to include the viewer’s perception of external objects. If, as Bishop writes, viewers are dislocated in dark installations because they are unable to perceive the space between themselves and external objects, they would equally have been unable to precisely locate external objects.

Giese’s luminous sculptures, like the black-bodysuited, living human bodies that were transposed into “graphic ‘human skeletons’” in front of the black screen in Marey’s cinematic analysis of running, produced an effect of disembodiment. Although the phosphorescent paint was a different light technology to the buttons and lines of metal that reflected the camera flash in Marey’s experiment, the same dematerialisation of a three-dimensional body to two-dimensional luminous notations in the dark arose at the Kunsthalle. Similarly, although painted wood and pressboard sculptures are not the same as human bodies, as I argue in more detail in subsequent chapters, the health or safety applications of the paint and its potential health and safety risk meant that the human body was very much a part of the meaning of these works of

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78 Foster, 1996, pp. 53-60.
79 Bishop, 2005, p. 82.
80 Bishop, 2005, p. 82.
81 Bishop, 2005, p. 82.
82 Elcott, 2016, pp. 5, 24, 83.
art in the exhibition at the Kunsthalle Düsseldorf in 1978. At the same time, like the spectators who disappeared in the spaceless darkness of Wagner’s Festival Theatre, or viewers whose bodies dissolved in dark installations of the postwar period, viewers were themselves immersed in this darkened space. They would have been less able to perceive in the darkened room in the Kunsthalle where they were in the space, and, as I argue, precisely where the sculptures were in the space and what their boundaries were. Although the afterglow emitted by the works in the dark did to a degree illuminate the darkened room in which they were exhibited, as Ellen Jansen’s research on the conservation of two beams painted by Giese with phosphorescent paint has shown, the luminosity of the phosphorescent paint Giese used to paint these beams had a specific duration and intensity, which meant that the afterglow may not have been bright enough to show where they were in the room nor what the boundaries of the objects were. In any case, in the dark, the luminous sculptures cast onto the walls of the gallery what could be read as the inversion of a shadow—the luminous negation of a normal shadow cast by an object in light (Fig. 5). In this sense, the works functioned as the complete opposite of objects in normal lighting conditions. Similar to the disembodiment of viewers Bishop described, the sculptures lacked one of the principal

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84 Without knowing whether the works were exhibited under ultraviolet spotlights, or, if they were, whether the lights were constant or were turned on to ‘charge up’ the phosphorescent paint from time to time, this is a good guess. Smit, conversation; Martindill, 1988, p. 188; Jansen, ‘Go with the Glow’, URL: http://www.conservation-restoration-training.nl/about/objects-projects/treatment-results/go-with-the-glow/; Jansen, 2014, p. 14. It is possible that the work in the collection of the Rijksmuseum Twenthe was not included in the work group Sculptures with Luminescent in the catalogue ‘Rainer Giese: Selected Works’ nor exhibited at the Kunsthalle in 1978. They nonetheless have the potential to illuminate the works that were. Haase was not the only critic to describe the seeming dematerialisation of these sculptures. In 1994, Christian Kravagna wrote in a review of the Graz installation of the touring exhibition ‘IMI Giese’, “In a darkened space, yellow- or orange-coloured geometric shapes seem to float. They are made from wood pieces that have been painted with a reflective paint.” See Kravagna, 1994.
85 I am grateful to Anthony White for pointing this out.
visual indications of the mass and volume of objects and therefore appeared dematerialised.

As I have argued in this chapter, the five three-dimensional wood and pressboard constructions of angles and geometric shapes on view in the solo exhibition of Imi Giese at the Kunsthalle Düsseldorf in 1978 seemed to some viewers to dematerialise, as Amine Haase’s review showed. Giese had painted these sculptures with green and orange Wiedolux phosphorescent paint, and as I have shown, the effect of the works’ immateriality described by Haase was caused by this phosphorescent colour, which in the darkened room in which the works of art were exhibited, emitted an afterglow. However, while some viewers saw the works as immaterial, as I show in the next chapter, other visitors to the Kunsthalle Düsseldorf in September 1978 saw the works differently. The methods of the physiologist Étienne-Jules Marey and his “collaborator” Georges Demeny in their experiments in the science of motion at the Physiological Station—which I compared above with the dematerialisation of Giese’s luminous sculptures in the darkened room at the Kunsthalle Düsseldorf in 1978—had specific practical applications.86 As Elcott wrote in his history of artificial darkness,

They worked—with the financial and logistical support of the French military—to maximise the efficiency of citizen soldiers. Their methods were developed by the engineer Charles Fremont and, later, by Frank B. Gilbreth, the founder of Scientific Management, to optimise the productivity of workers. Albert Londe, a follower of Marey’s, would use similar techniques to discipline mental patients at Charcot’s Salpêtrière. As Anson Rabinbach argues, “Marey’s accomplishment, to establish a science of the human motion […] was also a

86 Elcott, 2016, pp. 24-27.
modernist politics, the politics of a state devoted to maximising the economy of the body.” That black-screen technologies could be deployed on a range of docile bodies was recognised immediately by state, military, and industry.”

As I will show, one of the applications of Marey’s black screen in particular was interrelated with the politics of the simultaneous dematerialisation and materiality of Giese’s sculptures in the exhibition at the Kunsthalle Düsseldorf in 1978.

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87 Elcott, 2016, p. 27.
Chapter 2: Material

The luminous sculptures seemed to some viewers to dematerialise. Giese had painted these wood and pressboard geometric sculptures with green and orange phosphorescent paint, and at the Kunsthalle in 1978 the works were installed in a darkened room. In the dark, the paint emitted an afterglow. Viewers would have been able to see this phosphorescent colour because of the darkness—the green and orange light that radiated from the paint was visible in the dark. However, at the same time visibility would have been limited in the darkened room at the Kunsthalle. Therefore, as I showed in chapter 1, the effect of the dematerialisation of the works described by the critic Amine Haase was caused by this luminous colour of the works in the dark. Viewers would have had a hard time making out precisely where in the room the sculptures were, and thereby that they were sculptures, because of the darkness of the room and the paint, which though luminous, had a particular duration and intensity.

However, as I argue in this chapter, the phosphorescent paint that caused the effect of the sculptures’ dissolution when it glowed in the dark at the same time highlighted the opposite: the materiality of the works. In this chapter I give a reading first of the exhibition catalogue of ‘Rainer Giese: Selected Works’, and then of ‘Two spröde Exhibitions’, a review written by a critic who saw the works differently to Haase. Although the dematerialisation of the sculptures that Haase described was reproduced in technical descriptions of Giese’s works in the exhibition catalogue and in the catalogue’s design, the author of the review ‘Two spröde Exhibitions’ showed in a revealing misquotation of Katharina Schmidt’s foreword to this catalogue that the word “technical” could also have the opposite valence to its meaning in the catalogue. As I argue, this double meaning of “technical” showed that Giese’s luminous sculptures had two meanings in the solo exhibition of the artist at the Kunsthalle Düsseldorf in 1978. In
what follows, I begin with a reading of the exhibition catalogue because, as I show, a critic would later misquote the catalogue in a review of the exhibition, and this mistake would reveal that at the same time as the works seemed to some viewers to dematerialise, their materiality was insistent (or, as I will argue, resistant).

The foreword to the exhibition catalogue of ‘Rainer Giese: Selected Works’ opened with the curator of the exhibition, Katharina Schmidt’s, intention for the catalogue,

Rainer Giese’s notes reveal his unfulfilled, or only every now and then fulfilled, intention to describe his works in a detailed catalogue. They were produced from 1963/64 to 1974 predominantly in Düsseldorf. When they are seen now for the first time and are shown in a selection from the estate, which only here found consideration and which contains the majority of the works, it seems reasonable that the accompanying catalogue tries for an overview of the different, extant work groups independently of the exhibition.88

To fulfil Giese’s intention to describe his works, in the catalogue Schmidt classified Giese’s works into groups and subgroups, and described the date of his production of the works, their dimensions, materials, shape, and gave instructions for their installation. Her entry for the Sculptures with Luminescent Paint, which had been classified as Group II of the Sculptures, was as follows:

Wood or pressboard, painted with Wiedolux phosphorescent luminescent lacquer. These sculptures take up forms of the first sculptural works (Group I) again. Wooden beams with a square cross section of 5 x 5 cm were fitted together to different geometric figures such as squares, right angles, sides of a rectangle, over which the diagonal looms at an angle of 60°. 89

In this group were seven extant sculptures, five of which were exhibited in ‘Rainer Giese: Selected Works’, as an asterisk in the catalogue denoted. 90 However, the foreword to the catalogue had included a disclaimer. Schmidt had continued, “to review the work groups in detail is left up to further engagement with the material—especially in regard to the complexity of the drawings. No one would therefore assume that the meaning of an artistic work does not go beyond its technical description.” 91 Schmidt had called her descriptions of Giese’s works in the exhibition catalogue ‘technical descriptions’, and this disclaimer revealed something significant about the meaning of these technical descriptions, and in turn about the meaning of the works of art themselves.


90 Not on view were a pressboard and luminescent paint sculpture, Skulptur aus vier Elementen (2 Quadraten und 2 Vierecken) (Sculpture of Four Elements (2 Squares and 2 Quadrilaterals)), and a 60 x 60 cm pane of glass painted with luminescent paint. Düsseldorf, 1978, p. 7.

Schmidt had continued after her disclaimer, “Although Rainer Giese resisted restrictive stylistic classifications as Minimal and Conceptual Art, his works are understandable in the context of these tendencies in art, but at the same time they set themselves apart more and more as independent and idiosyncratic.”

Here, she compared and contrasted Giese’s works with American Minimalist and Conceptual Art. This was revealing because Rosalind Krauss’ critique of the work of Minimalist artist Donald Judd in the 1966 essay ‘Allusion and Illusion in Donald Judd’ resounded strongly in Schmidt’s disclaimer that the meaning of Giese’s works of art went beyond the technical descriptions in the catalogue. As Christine Mehring has described, West Germans had access to American Minimalism from the 1960s onwards. Galerie Konrad Fischer—opened by Capitalist Realism artist Konrad Lueg at 12 Neubrückstrasse, Düsseldorf—exhibited Carl Andre’s grid of 100 square hot-rolled steel plates, 5 x 20 Altstadt Rectangle, in 1967 (Fig. 14). At ‘Documenta 4’ in Kassel in 1968, works by Flavin, Judd, and Morris were on view, including Morris’ 1965 L-Beams (Fig. 15). At the Kunsthalle Düsseldorf itself in January and February 1969, Düsseldorferers would have been able to see works by American artists in the touring group exhibition ‘Minimal Art’. American art magazines were accessible in Düsseldorf as was shown by the Kunstakademie Düsseldorf’s subscriptions from 1967 to Art in America and to Artforum, where Krauss’ 1966 essay on Judd had been published.

This was not the first time that Giese’s work had been compared with Minimalism. In Information No. 4, a publication published by the Kunstakademie Düsseldorf chapter of the national student organisation Allgemeiner

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93 Krauss, 2010, pp. 91-100.
Studierendausschuss (ASTA) in 1968, Hans Strelow published an article on the work of the two Imis, who were then students in Beuys’ class at the Kunstakademie. In ‘IMI and IMI’, Strelow argued that the sculpture of Giese and Knoebel was related to Minimal Art. “Giese’s and Knoebel’s sculptures are reality in the found reality surrounding them. As with all “New Monuments”, they have no other content and no other meaning.” One critic reviewing the exhibition of Giese’s works in Düsseldorf in 1978 described work by Giese in the exhibition as “minimal”. Helga Meister wrote, “The minimal sequences concentrate on prime numbers, those figures which are indivisible. The secret building blocks of a minimal art.” Because of this presence of American Minimalism in Düsseldorf, and because Schmidt herself brought Minimalism up in her foreword to the catalogue, I now turn to discuss Minimalism and its relation to the Sculptures with Luminescent Paint on view in ‘Rainer Giese: Selected Works’ in order to illuminate the meaning of the technical descriptions in the catalogue.

In response to a work of Judd’s she had seen hanging on the wall at Castelli Gallery, a horizontal brushed aluminium bar supported by shorter bars of different

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96 Strelow, 1992.
98 The critic, Helga Meister, may have been talking about works by Giese using prime number sequences, and not the sculptures painted with luminescent paint. Meister, 1978. The copy of Meister’s review in Giese’s file in the Kunstakademie Düsseldorf is annotated “D.N.” Meister had written an article about an exhibition of Palermo’s work in Krefeld the year before for Düsseldorfer Nachrichten, and it is possible her review of Giese’s exhibition was published in Düsseldorfer Nachrichten. See Mehring, 2008, p. 279.
lengths painted with purple enamel (Fig. 16), Rosalind Krauss had written the following in 1966:

To get at meaning in Donald Judd’s recent works necessarily involves brute description of the objects themselves, but significantly such a description cannot simply rest at an inventory of characteristics, even though many of the sculptors persuaded by object art maintain that such an inventory does indeed describe all that the works contain. Rose reports that the artists she deals with ask that their sculpture be taken as “nothing more than the total of the series of assertions that it is this or that shape and takes up so much space and is painted with such a colour and made of such a material.” But it would seem that in Judd’s case the strength of the sculptures derives from the fact that grasping the works by means of a list of their physical properties, no matter how complete, is both possible and impossible. They both insist upon and deny the adequacy of such a definition of themselves, because they are not developed from “assertions” about materials or shapes, assertions, that is, which are given a priori and convert the objects into examples of a theorem or a more general case, but are obviously meant as objects of perception, objects that are to be grasped in the experience of looking at them.\(^\text{100}\)

Krauss’ essay was a critique of what she called the “theoretical line” of Judd.\(^\text{101}\) As this critique helps to illuminate the meaning of the technical descriptions of Giese’s works in the exhibition catalogue of ‘Rainer Giese: Selected Works’, I now lay out this theoretical line of Judd’s.

\(^{100}\text{Krauss, 2010, pp. 92-93.}\)
\(^{101}\text{Krauss, 2010, p. 92.}\)
The year before Krauss’ *Artforum* essay, Judd had published in *Arts Yearbook* the essay ‘Specific Objects’. The essay had opened, “Half or more of the best new work in the last few years has been neither painting nor sculpture.” Judd had objected to the illusion of space on the rectangular plane of the painting. “In work before 1946,” he wrote, “the edges of a rectangle are a boundary, the end of the picture. The composition must react to the edges and the rectangle must be unified, but the shape of the rectangle is not stressed; the parts are more important, and the relationships of colour and form occur among them.” The illusion of space on the rectangular plane of the painting was produced by composition, by relating the parts of the painting to one another. In a relational work of art, there was an underlying order. Judd had objected to meaning as a priori, that is, “an idea or intention that exists prior to the making of the work in such a way so that it seems to lie inside the object like its motivating kernel or core.” Painting after 1946, including work by Pollock, Rothko, Still, Newman, Reinhardt, and Nolan emphasised the rectangular shape and plane of the painting. With these works, Judd continued, “A painting is nearly an entity, one thing, and not the indefinable sum of a group of entities and references”, as in the relational earlier work. However, “The simplicity required to emphasise the rectangle limits the arrangements possible within it. The sense of singleness also has a duration, but it is

103 Judd, 1975, p. 181.
104 Judd, 1975, p. 182.
107 Foster, Krauss, Bois, and Buchloh, 2004, p. 493. About Frank Stella’s shaped paintings in which the lines inside the edge of the painting lined up with the edge, Judd wrote, “The order is not rationalistic and underlying but is simply order, like that of continuity, one thing after another.” Judd, 1975, p. 184.
108 Judd, 1975, p. 182.
only a beginning and has a better future outside painting.”\textsuperscript{109} Painting had, in Judd’s view, ‘become a set form’.\textsuperscript{110} And in any case,

Anything on a surface has space behind it. Two colours on the same surface almost always lie on different depths. An even colour, especially in oil paint, covering all or much of a painting is almost always both flat and infinitely spatial. The space is shallow in almost all of the work in which the rectangular plane is stressed.\textsuperscript{111}

Like painting before 1946, “Most sculpture is made part by part, by addition, composed”,\textsuperscript{112} and therefore its meaning was a priori. The new work that Judd advocated for in ‘Specific Objects’ that was neither painting nor sculpture was work in three dimensions. “Three dimensions are real space. That gets rid of the problem of illusionism and of literal space, space in and around marks and colours—which is riddance of one of the salient and most objectionable relics of European art.”\textsuperscript{113} “In the new work the shape, image, colour and surface are single and not partial and scattered. There aren’t any neutral or moderate areas or parts, any connections or transitional areas.”\textsuperscript{114} As Judd’s critique showed, the meaning of works of art in the past had been a priori. A specific object had no parts that were related to one another according to an idea that had existed before its production, it was simply “this or that shape and takes up so much space and is painted with such a colour and made of such a material”, as

\textsuperscript{109} Judd, 1975, p. 182.
\textsuperscript{110} Judd, 1975, p. 184.
\textsuperscript{111} Judd, 1975, p. 182.
\textsuperscript{112} Judd, 1975, p. 183.
\textsuperscript{113} Judd, 1975, p. 184.
\textsuperscript{114} Judd, 1975, p. 187.
Barbara Rose wrote. However, as Krauss showed, assertions about the shape, size, colour, and materials of the work were themselves a priori. If the meaning of the work were this list of its physical properties, then the object itself would become simply an example of the list, the properties on which were given before the object. In this sense, the technical descriptions of Giese’s works in the catalogue of ‘Rainer Giese: Selected Works’—descriptions of the materials, production date, shape, size, and possible installations—were, like the list of physical properties that Judd had argued was the total meaning of his works of art, a priori assertions.

These technical descriptions in the catalogue had an aesthetic. As I described above, Schmidt had separated Giese’s works into work groups in the catalogue, and described the date of production, dimensions, materials, shape, and gave instructions for the installation of the works. These work groups, and the works of art within each of

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116 Krauss had similarly argued that the meaning of Judd’s works was in the viewer’s experience of them. As the American critic described, when she saw his work hanging on the wall at Leo Castelli’s from the front, she perceived that the long horizontal brushed aluminium bar of Judd’s sculpture supported the shorter purple bars hanging off it. However, when she looked at the work from the side, she saw that the purple bars were in fact affixed to the wall and were supporting the longer brushed aluminium bar. Looking at the work from the side, Krauss felt tempted to read the work as in perspective. Both the assumption that the longer bar supported the shorter bars and the temptation to read the work as in perspective were assumptions based on prior knowledge of architecture. “Yet,” as Krauss wrote, “the work confounds that perspective reading which will guarantee a sense of absolute measurement through proportion, because of the obviously unequal lengths of the violet bars and the unequal distances which separate them (Krauss, 2010, p. 97).” She continued, “The work cannot be seen rationally, in terms of a given sense of geometrical laws or theorems evolved prior to the experience of the object (Krauss, 2010, p. 97).” Krauss hence saw the sculpture as an “irritant” for the viewer’s perception that the meaning of the work of art is in their experience of it. “In the case of the sculpture described above, the work plays of the illusory quality of the thing itself as it presents itself to vision alone—which it does persuasively from a front view, in seeming to be a series of flat, luminous shapes; and from a raking view, in the optical disappearance created by its orthogonal recession—as against the sensation of being able to grasp it and therefore to know it through touch. The sculpture becomes, then, an irritant for, and a heightening of, the awareness in the viewer that he approaches objects to make meaning of them, that when he grasps real structures, he does so as meaningful, whole presences (Krauss, 2010, p. 98).”
these groups were numbered. The descriptions of the works of art were then laid out on
the pages of the catalogue in two columns. The numbering of the works of art, the page
layout, and the sans serif font caused the works of art to look like problems in a
mathematics textbook. In the technical descriptions of some of the works, sensuous
sculptural objects with colour, facture, and mass were condensed into what looked like
pronumerals, letters that represented numbers in algebraic equations. In one example,
the sculptural elements in the work *Skulptur aus 25 Elementen* (*Sculpture of 25
Elements*), twenty-five hardboard and pressboard flat rectangular elements painted with
graphite that were installed lying on the floor or standing in a specified relationship to
one another and to the room in which the work was exhibited, were transposed in the
catalogue as the letters A to Y (Fig. 17). The description of the dimensions of the
object transposed as “A” looked like an equation to be solved to find the value of A, “A
= 5.5 x 256 x 176 cm”. If, as Krauss had said of Judd’s work, a priori assertions about
colour, materials, shape, or size “convert the objects into examples of a theorem”, the
technical descriptions of Giese’s works in the catalogue themselves at times looked like
mathematical equations. Therefore the catalogue of the exhibition ‘Rainer Giese:
Selected Works’ represented, in its technical descriptions of Giese’s works of art and in
its design, the experience of the works that Amine Haase had described in her review of
the exhibition. As a priori, ideal assertions about the works, the technical descriptions
reproduced the dematerialisation of the sculptures that Haase saw.

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117 Basic Algebra, URL: [http://www.utas.edu.au/mathematics-pathways/pathway-to-
education/basic-algebra](http://www.utas.edu.au/mathematics-pathways/pathway-to-
education/basic-algebra)


121 Yve-Alain Bois has written of Fred Sandback, “In order to avoid the sense of
referring to an absent object that plagued his first cord and metal pieces and tied them to
an aesthetic of transcendence, Sandback then opted for two solutions that, he hoped,
would signal the immanence of his work, its being there, in the real space. The first,
In the final sentence of the foreword to the exhibition catalogue, Schmidt wrote,

The different work groups allow it to be recognised that the selected media: sculpture, drawing, photography, projection cross over into one another and that they at the same time are secondary to the attempt to achieve an objectification of the finite and infinite possibilities of relationships and relationship systems with simple pictorial means.\(^{122}\)

As I argue below, the last phrase of this passage was misquoted by a critic reviewing the exhibition, a mistake that revealed that the word “technical” had a different meaning in the review than it had in the a priori assertions about Giese’s works in the catalogue. And this double meaning of “technical”—not only a priori, but also material—showed that the luminous sculptures had two meanings in the exhibition of Giese at the Kunsthalle Düsseldorf in 1978.

which has been exploited by Judd to demonstrate the autonomous existence of his pieces, was the use of mathematical progressions: solipsistic, such arbitrary systems wear their arbitrariness on their sleeve: no need to look further for a causal justification. But this immediately backfired (as it had done for Judd, whose works based on the Fibonacci series have been and still are perennially misunderstood as a hymn to rationality, no matter how often or loudly he lambasted this interpretation). The reference that one imagined and called forth was no longer to an absent object but to an a priori diagram. The actuality and factuality of the work, and above all the rich and unstable relation between the two, Sandback’s main concern right from the start, were subsumed by the dematerialised language of geometry. And so it was out of the frying pan, into the fire: rather than summoning the unwanted allusion to the essence of an object, the sculptures now looked as if they were illustrating some neo-platonic discussion about universal shapes. It was not the real, phenomenal space that they inhabited, but some mental world, scaleless, immaterial.” See Bois, 2005, pp. 29-30.

‘Two spröde Exhibitions’—a review of both ‘Rainer Giese: Selected Works’ and an exhibition of work by the artist Maurizio Mochetti at the Kunsthalle—is preserved in Giese’s file in the archive of the Kunstkademie Düsseldorf but without author or publication details. The article opened as follows: “Whoever had expected during the dismal September variety through a visit to the double exhibition MOCHETTI/GIESE was surely disappointed.” The reviewer went on, “Even in the opinion of Kunsthalle Director Jürgen Harten it was ‘spröde’, however, as he finds it, at least ‘rich in content’.” The critic however had a hard time making out this content.

In a wholly different way to Mochetti’s work, the subject matter “space proportions, relationships in space” again reflects with Rainer Giese. The author of the catalogue of the Giese exhibition, Dr Katharina Schmidt, describes then this subject matter as “the attempt to achieve an objectification of the finite and infinite possibilities of relationships and relationship systems with simple technical means”. The public could hardly have assumed that such a complicatedly worded subject matter stands behind the rather simple seeming work of Giese. Engage with his sculptures, and it seems more than difficult to read in the works the above quoted intention as the intention of the artist.

123 AKD, Akte Giese, Imi. There is no equivalent in English of the German word “spröde”. One possible translation that matches the critic’s review of the exhibition is “austere”.
125 „Selbst nach Auffassung von Kunsthallenchef Jürgen Harten war sie ‘spröde’, aber, so findet er, zumindest ‘gehaltvoll’”. AKD, Akte Giese, Imi.
126 „Es fiel jedoch schwer, den Gehalt dieser beiden Ausstellungen zu erkennen.” AKD, Akte Giese, Imi.
127 „Auf eine völlig andere Weise, als bei den Werken Mochettis, speigt sich bei Rainer Giese die Thematik “Raumproportionen, Verhältnisse im Raum” wieder. Die Verfasserin des Kataloges zur Giese-Ausstellung, Dr. Katharina Schmidt, bezeichnet
The author of the review was unable to see in Giese’s sculptures the meaning that the curator of the exhibition had ascribed to them. However, the line of Schmidt’s from the exhibition catalogue that the critic had quoted was in fact misquoted. What Schmidt had actually written was, “the attempt to achieve an objectification of the finite and infinite possibilities of relationships and relationship systems with simple *pictorial* means.”

This may sound like a simple transcription error, however I read it as a slip that revealed what the critic saw when they looked at Giese’s sculptures. And what this critic saw was also the opposite of what Amine Haase, the critic from chapter 1, had seen.

The word *technisch* appeared three times in the review. On the first occasion, it was used to describe Mochetti’s exhibition. The critic wrote, “a glowing light bulb hanging from the ceiling … was supposed to represent the ‘visualisation of the middle
point of the space.”\textsuperscript{130} (The critic’s cynical tone was loud and clear.) Of “A television remote control lying on a white pedestal, with whose help viewers could let out a quacking noise somewhere in the space” the critic wrote, “This was, according to Mochetti, the attempt to connect two points spatially independent of one another.”\textsuperscript{131} If the light bulb and quacking remote control were supposed to have visualised the middle point of the space and connected two spatially independent points, in the opinion of the critic, “The objects had, so as they were presented to the public, no other meaning. One had the impression that it was nothing but a technological (technische) exhibition.”\textsuperscript{132} Technisch here meant technological: Mochetti’s use of a light bulb and remote control had transformed his art exhibition into something approaching an exhibit of electrical appliances at a trade fair.\textsuperscript{133} The second use of the term technisch in the review described Giese’s works of art: “The exhibition, which was restored and based on the specifications he left behind, is made up of series of technically (technisch) very different works. His drawings and photography can be described with the term ‘mathematical number pictures’. The other objects are sculptures made from wood slats and boards.”\textsuperscript{134} Here, technisch could have also meant artistic technique. The works on

\textsuperscript{130} “Die absoluteste Platzierung eines Objektes fiel den meisten Besuchern wohl am wenigsten auf: Gemeint ist eine von der Decke herabhängende, grell leuchtend Glühbirne, die ‘die Visualisierung, die Sichtbarmachung des Mittelpunktes dieses Raumes’ darstellen sollte.” AKD, Akte Giese, Imi.

\textsuperscript{131} “Als Gegenpol bediente er sich einer auf einem weissen Podest liegenden Fernbedienung, mit deren Hilfe der Besucher einen quakenden Ton irgendwo im Raum auslösen konnte. Dies war, laut Mochetti, der Versuch zwei räumlich voneinander unabhängiger Punkte zu verbinden.” AKD, Akte Giese, Imi.

\textsuperscript{132} “Die Objekte hatten, so wie sie die Publikum dargeboten wurden, keine eigene Aussagekraft. Man hatte den Eindruck, als handelte es sich einzig und allein um eine technische Ausstellung.” AKD, Akte Giese, Imi.

\textsuperscript{133} I am grateful to Anthony White for this association.

\textsuperscript{134} “Die Ausstellung die nach seinen hinterlassenen Angaben restauriert und aufgebaut worden war, setzt sich aus Serien technisch sehr unterschiedlicher Werke zusammen. Seine Zeichnungen und Fotografien lassen sich mit dem Begriff ‘Mathematische Zahlenbilder’ umschreiben. Bei den anderen Objekten handelt es sich um aus Holzlatten und Holzplatten geschaffene Skulpturen.” AKD, Akte Giese, Imi.
view in the exhibition ‘Rainer Giese: Selected Works’ were produced not only with
different technologies, but also with different artistic techniques. The last technisch was
the reviewer’s slip, “simple technical (technischen) means” when they should have
written “simple pictorial means”. Therefore, in the context of this exhibition review, the
technical in “simple technical means” could have meant technological device or artistic
technique, or both.¹³⁵

When the author of ‘Two spröde Exhibitions’ looked at Giese’s sculptures, they
could not see in them the meaning that Schmidt had ascribed to them in the exhibition
catalogue—“the attempt to achieve an objectification of the finite and infinite
possibilities of relationships and relationship systems with simple pictorial means.”¹³⁶
So, when quoting this line in their review of Giese’s exhibition, they slipped. And this
slip revealed what they saw instead. The critic had continued,

Rather, one feels oneself pushed into the role of the superficial viewer when one
for example stands before the “progressively differing” cuboid-elements. Still
more than with this object, the intellectual aspect seems to move into the
background with the other wood sculptures. These objects are several wood slats
painted with luminescent paint, which together produce a composition. Giese
definitely achieved a high optical effect with these luminous sculptures in the
darkened exhibition space. The claims to intellectual content, which were
claimed with the preceding subject (see above), seem here to be unjustified.¹³⁷

¹³⁵ I’m grateful to Anne Dehne for explaining the nuances of this to me.
¹³⁷ ‘Man fühlt sich eher in die Rolle des oberflächlichen Betrachters gedrängt, wenn
man beispielsweise vor den sich ‘progressiv verändernden’ Quader-elementen steht.
Noch mehr als bei diesem Objekt, scheint der intellektuelle Aspekt bei den anderen
Holzskulpturen in den Hintergrund zu treten. Bei diesen Objekten handelt es sich um
einige mit Leuchtfarbe gestrichenen Holzlatten, die zusammengefügt eine Komposition
Looking at Giese’s Sculptures with Luminescent Paint, the critic saw a composition made from wood slats and luminescent paint. Revealingly, the critic described the sculptures as made of wood slats (*Holzlatten*), a technical term that alluded to the uses of the material. Like the light bulb and remote control in the exhibition of work by Mochetti, Giese’s works of art were made of everyday materials. The critic slipped and wrote “simple technical means” when they should have written “simple pictorial means” because when they looked at Giese’s works of art, they perceived an ambivalence in the works. As they had written, they saw a composition—an artistic term—made from wood slats—an everyday material. The word “technical”, as I showed, connoted both artistic technique and technological device. Furthermore, the word it displaced when the critic slipped—“pictorial”—was similarly ambivalent. On the one hand, “pictorial” is a particular artistic technique, and on the other hand a picture is not always a work of art.

Like the wood slats, the luminescent paint with which Giese had painted them had everyday applications. Paints by Wiederhold, the company that produced the
Wiedolux line of luminescent paints, had been exhibited at the Hannover Trade Fair.\textsuperscript{139}

In the August 1971 issue of the monthly journal \textit{Werkstoffe und Korrosion (Materials and Corrosion)}, a short report on Wiederhold lacquers, including their Wiedolux line, had been published. As the journal informed its readers—scientists, engineers, and equipment manufacturers—Wiedolux paints had safety application possibilities.\textsuperscript{140}

Wiederhold gives special attention to the safety sector. The Wiederhold-Safety-Set, found in trade for some months, finds great attention. It includes WIEDOLUX-luminescent paint including white special-base coat in aerosol can. With it, spraying a warning triangle on the boot lid is easily possible for every automobile owner.

For the fluorescent WIEDOLUX-day luminescent lacquers new application possibilities always arise: fire brigade and ambulance vehicles for example are recognisable from a 5 times larger distance than normal painted. School buses are sprayed in day yellow-orange luminescent paint. Tests on leather—for satchels—were successful. Under the phosphorescent luminescent lacquers are embossable special qualities, which are being used advantageously for the production of luminescent license plates (for the time being only with special permit and not to be mistaken with the already licensed retroreflectant plates) or of \textit{Schutzraumschildern}.\textsuperscript{141}


\textsuperscript{140} \textit{Werkstoffe und Korrosion} Overview, URL: \url{http://onlinelibrary.wiley.com.ezp.lib.unimelb.edu.au/journal/10.1002/(ISSN)1521-4176/homepage/ProductInformation.html}

\textsuperscript{141} “Dem Sektor Sicherheit schenkt man bei Wiederhold erhöhte Aufmerksamkeit. Grosse Beachtung findet das seit einigen Monaten im Handel befindliche Widerhold-
As I described in chapter 1, M. G. Martindill has described that “A conventional orange pigment, for instance, will reflect orange wavelengths while absorbing most of the others. A luminescent orange pigment will not only reflect orange light while absorbing most of the rest but will also reemit some of that absorbed energy as orange light.”

With fluorescent paints, another type of luminescent paint, light is emitted after absorption almost always instantaneously. Phosphorescent paints emit light as an afterglow because the process of absorbing and reemitting light is longer. These different properties meant that Wiedolux phosphorescent paints would have had different application possibilities to Wiederhold’s fluorescent paints. In *Materials and Corrosion*, the fluorescent paints were referred to as day luminescent lacquers, and could be applied to emergency services vehicles, school buses, and school bags. Giese had painted the series of Sculptures with Luminescent Paint with phosphorescent Wiedolux paints, the applications of which included the production of *Schutzraumschildern*, one possible translation of which is air raid shelter signs. Another example of *Schutzraumschildern* are signs in x-ray suites. The white luminescent

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143 Martindill, 1988, p. 187.
145 I am grateful to Anne Dehne for pointing this out. In his discussion of Lucio Fontana’s 1949 work *Spatial Environment in Black Light*, which was painted with
paint base coat Giese had painted on the beams and cube could have been the same white special basecoat in the aerosol can in the Wiederhold Safety Set, used for spraying warning triangles on car boot lids. The Wiedolux phosphorescent paints with which Giese had painted his Sculptures with Luminescent Paint thus had health or safety application possibilities.  

The application possibilities of the Wiedolux phosphorescent paints in the report in *Materials and Corrosion* showed that the paints with which Giese had painted with fluorescent paint and exhibited in the dark under ultraviolet light, Anthony White quoted one reviewer who wrote, “the first impression is of finding oneself in one of those mysterious and macabre booths at the carnival or in the consulting rooms of the radiologist.” See White, 2011, p. 155.

Like the paint with which Giese had painted the five Sculptures with Luminescent Paint in the exhibition, the luminescent paint with which Lucio Fontana had painted papier-mâché forms in *Spatial Environment in Black Light* had a desublimating effect because of its cultural references, as Anthony White has argued (White, 2011, pp. 151-55). Fontana had exhibited the forms under ultraviolet light in a darkened room at the Galleria del Naviglio in Milan in 1949, and as White has described, the work evoked for critics nightclub interiors, theatrical reviews, and advertising (White, 2011, pp. 151-55). White argued, “Exploiting the wondrous modern devices of nightclub decoration and advertising spectacle, Fontana constructed a fairytale space of magical splendour, an otherworldly atmosphere in which the distinction between the material object and the surrounding space was blurred. At the same time, though, this dream is cheapened by its association with the dubious arts of commodity spectacle (White, 2011, p. 156).” While there was a similar tension between immateriality and materiality in Fontana’s *Spatial Environment in Black Light* in Milan in 1949 in Giese’s five Sculptures with Luminescent Paint in Düsseldorf in 1978 (White, 2011, pp. 151-157), the relationship of the spectacle to this latter context has been contested. Michel Foucault argued in *The Birth of Biopolitics*, a series of lectures he gave at the Collège de France in 1979, that neoliberalism in the Federal Republic of Germany in the late 1970s differed from the spectacle. “Quite simply, those who denounce a “Sombartian” society, in inverted commas, I mean that standardising, mass society of consumption and spectacle, etcetera, are mistaken when they think they are criticising the current objective of governmental policy. They are criticising something else. They are criticising something that was certainly on the explicit or implicit horizon, willed or not, of the arts of government [from the twenties to the sixties]. But we have gone beyond that stage. We are no longer there. The art of government programmed by the ordoliberals around the 1930s, and which has now become the program of most governments in capitalist countries, absolutely does not seek the constitution of that type of society. It involves, on the contrary, obtaining a society that is not orientated towards the commodity and the uniformity of the commodity, but towards the multiplicity and differentiation of enterprises (Foucault, 2008, p. 149).” I discuss the conditions Foucault described in chapter 3.
the sculptures were a form of health or safety technology. The green and orange afterglow emitted by the sculptures in the dark in the Kunsthalle would have evoked the colour of glow-in-the-dark objects that Düsseldorfer engaged with in their daily lives. The word “technical” therefore had a different meaning in the review of the exhibition to the meaning it had in the catalogue. On the one hand, the technical descriptions of Giese’s works in the catalogue were, as I have shown, a priori assertions about the works. On the other hand, the review showed that the word “technical” could also mean material. And these two different meanings of “technical” showed that the sculptures had two different meanings in the exhibition at the Kunsthalle Düsseldorf in 1978. As an everyday material, the phosphorescent colour of the sculptures highlighted the materiality of the works. The application possibilities of the paints that were evidence of the materiality of the artworks likely arose in part from the paints’ phosphorescent property. And this was the same phosphorescent colour that had, in chapter 1, caused the effect of the immateriality of the sculptures. Therefore, when the sculptures seemed to Amine Haase to dematerialise, their materiality was in fact insistent because the phosphorescence of the paint that caused the effect of the sculptures’ dematerialisation at the same time reasserted their materiality. The sculptures Giese had painted with luminescent paint were therefore immaterial and material at the same time.147

147 In her monograph on Blinky Palermo, who shared the studio Room 19 at the Kunstkademy with the two Imis, Christine Mehring wrote, “In a review of Palermo’s first solo exhibition six months later, the critic Peter Bode, in a probable illusion to Palermo’s inclusion in the Weiss-Weiss show, argued that Palermo’s works had abandoned the interplay between materiality and immateriality that had emerged there, moving too far toward the former without being able to transcend their materials. Palermo’s materials, in Bode’s opinion, referred merely to themselves: “These childishly painted woods (läppisch bemalten Hölzchen), like the rhombus pictures, which are sewn from silk and appear insensitive, telling us nothing but that they are made of silk, conclude the foolish work of a beginner. … The white Palermo desires is not white, but now only grey”. ‘Weiss-Weiss’ at Galerie Schmela in Düsseldorf in
Chapter 3: Materialist

The five Sculptures with Luminescent Paint on view in the solo exhibition of Imi Giese at the Kunsthalle Düsseldorf in September 1978 were exhibited in the dark. Giese had painted these wood and pressboard sculptures with green and orange Wiedolux phosphorescent paint. In the darkened room in the Kunsthalle, the paint emitted an afterglow. As the critic Amine Haase’s review showed, to some viewers the sculptures seemed to dematerialise. As I argued in chapter 1, this seeming immateriality was the combined effect of the phosphorescent colour of the works and the darkened room in the Kunsthalle in which they were exhibited. While the green and orange afterglow emitted by the sculptures was visible only in the dark, at the same time there would have been limited visibility in the darkened room in the Kunsthalle. Viewers’ ability to perceive where in the space the sculptures were—and that they were in fact three-dimensional objects—would have been limited by the darkness of the room.

However, at the same time as some viewers saw the works as immaterial, other visitors to the Kunsthalle Düsseldorf in September 1978 recognised that Giese’s works of art were made of everyday materials. As I showed in chapter 2, the Wiedolux phosphorescent paint with which Giese had painted the sculptures had everyday applications. Used in the production of air raid shelter signs or signs in x-ray suites, the paint was a form of health or safety technology, and its application possibilities likely arose in part out of its phosphorescent property. An everyday material, the phosphorescent paint asserted the materiality of the works. Therefore, the same phosphorescent paint that initiated the works’ loss of materiality highlighted the

materiality of the works. In this chapter I explain what this dialectic of immateriality and materiality in the Sculptures with Luminescent Paint meant in the solo exhibition of Giese at the Kunsthalle Düsseldorf in 1978. In so doing, I draw on Alexander Kluge and Oskar Negt’s political economy of labour power in History and Obstinacy.

*History and Obstinacy* is a particularly visual book.\(^{148}\) Frederic Jameson has described, “an extraordinary collection of hundreds of images drawn from medieval manuscripts, films, workers’ newspapers, ads, graphs, scientific models, newsreel photographs, pictures of old furniture, science fiction illustrations, penmanship exercises, and the reconstruction of Roman roads or Renaissance battles” in *Geschichte und Eigensinn*, the original 1981 German publication.\(^{149}\) As Jameson went on to argue “The various chapters, sections, paragraphs, notes, and digressions (themselves following a variety of numeration systems) are reclassified typographically, by means of alternate typefaces, frames and blocks, and, most dramatically, black pages with white type that interleaf the more “normal” experiments”.\(^{150}\) Furthermore, “the form of presentation is no longer that of the philosophical treatise or discursive essay. Rather, we might describe the book as a kind of conceptual film (if by “film” we have in mind one of Kluge’s own).”\(^{151}\) *History and Obstinacy* is a revised edition and English-language translation of *Geschichte und Eigensinn*, however it includes images, changes in typeface, text boxes, and black pages with white type, as in Jameson’s description of *Geschichte und Eigensinn*. As *History and Obstinacy*’s design is part of its meaning, in what follows I reproduce the idiosyncratic formatting of the book when quoting from it, including passages which are italicised, capitalised or in bold type. What these quotations cannot fully convey, however, are the visual transitions in the text of *History

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\(^{148}\) I’m grateful to Giles Fielke for pointing this out.
\(^{149}\) Jameson, 1988, p. 152.
\(^{150}\) Jameson, 1988, p. 152.
\(^{151}\) Jameson, 1988, p. 160.
and Obstinacy between black type on bleached pages and pages of white text on black backgrounds which evoke the very same simultaneous dematerialisation and materiality in Giese’s luminous sculptures in the dark in the Kunsthalle Düsseldorf in 1978.

Both History and Obstinacy and workplace health and safety regulation focus on the “soft tissue of capitalism”, labour power. As I argue, work and the safety of the body at work were part of the meaning of Giese’s luminous sculptures in the solo exhibition of the artist at the Kunsthalle Düsseldorf in 1978. Therefore, I draw on Kluge and Negt’s political economy of labour power in History and Obstinacy to answer the question of the meaning of the dialectic of immateriality and materiality in Giese’s luminous sculptures in the exhibition ‘Rainer Giese: Selected Works’ at the Kunsthalle Düsseldorf in 1978.

In History and Obstinacy, Kluge and Negt write that the question Marx had asked in Capital was, “If capital could speak, how would it explain itself? Can capital say ‘I’?” The subject of History and Obstinacy is the “polar opposite” of Marx’s political economy of capital—a political economy of labour power. In History and Obstinacy, labour power is also called “labour capacities”, labour capacity, characteristics, traits, and “humankind’s essential powers”. A characteristic may at the same time be a

152 Fore, 2014, p. 22.
153 Kluge and Negt, 2014, p. 120. Emphasis original.
154 Kluge and Negt, 2014, p. 120.
155 Kluge and Negt wrote, “this book is about the POLITICAL ECONOMY OF LABOUR POWER” and “The subject of our book, the political economy of labour capacities”. Kluge and Negt, 2014, pp. 73, 88. Fredric Jameson wrote of labour capacities in Geschichte und Eigensinn, “It is not, therefore, some primal “self” that has Eigensinn, but rather a whole range of historically acquired and developed skills, drives, capacities, each of which makes its own “stubborn” demands and has its own distinct “meaning”. Such forces, however, can be residual or emergent; they often fail to be used to capacity; and their unemployment generates specific pathologies, as does their repression, alienation, or diversion. What also generates social pathology is their multiplicity, which is to say the permanent possibility for contradiction or for harmful
combination of different characteristics. Labour capacities were precipitated by primitive accumulation, Marx’s term for the expropriation of land from peasants with the privatisation of the commons in the Enclosure Acts in England in the late eighteenth century. This was the start of capitalism. In *History and Obstinacy*, Kluge and Negt write of primitive accumulation as a permanent process in which capital expropriates labour capacities from within the human subject. As Devin Fore has argued, “Today, the properties that capitalism targets for appropriation are not spatial territories found out there in the world, but the personal assets located within us, properties such as ‘the capacity for learning, discipline, the capacity for abstraction, punctuality.’” With the separation of workers from the means of production, labour becomes alienated. Kluge and Negt write,

> The time during which a female punch operator stands at her machine is virtually struck from her lived time; it is not she—a living person—who stands there before the machine, but rather her abstraction. If she makes extraneous coordination among them. This is, for example, what explains the circumstance … in which a “capacity,” which is a splendid natural force in its own right, may, in the historical accident of combination with other equally valuable forces, have deathly or indeed deadly effects.” Jameson, 1988, p. 159.

156 Take, for example, Kluge and Negt’s example of the feeling of responsibility, more on which below, “the group of labour capacities that combine to form the feeling of responsibility. This feeling is composed essentially of the ability to produce a reserve of attention. Its product is called reliability. It is a characteristic that presupposes a freedom of disposition, a subjective autonomy contrary to the unadulterated implementation of reality. The fact that this applies not to one elemental characteristic, but rather to a composite in which elemental characteristics operate, is obvious. Reliability also cannot appear in the form of such a composite alone. Rather, it exists within a gravitational field connected to numerous other capacities responsible for keeping this field alive.” Kluge and Negt, 2014, pp. 247-248.

157 Kluge and Negt, 2014, pp. 81-88; Fore, 2014, p. 34.
158 Fore, 2014, p. 34.
160 Fore, 2014, p. 34.
movements that rationalisation experts advise her to avoid, she infringes—as something real—upon the unreality of labour’s time frame. An important question for the political economy of labour power lies in the way this punch operator is able to prepare herself for this abstraction by using her own powers. She does not have to exert herself in order to operate the machine; it is strenuous and consumes her powers, but the machine dictates her will. She must exert herself in order to **endure this abstraction**.\(^{162}\)

In Kluge and Negt’s political economy of labour power, labour power is subject to “a basic law of self-regulation”.\(^{163}\) It therefore compensates for abstract labour by expending labour power in a “balance economy”:

Frau Heinrich has arrived. She takes out her yoghurt and places it on the machine, starts up the machine, and empties onto it the first box of materials. She sits in a row behind Frau Winterfeld and Frau Bartz. Frau Heinrich’s work goes in short cycles. You can tell that by the boxes stacked up in front of her which make up her day’s task. She almost disappears behind them. Her work-cycle lasts for nine seconds. She picks up a base with her hand and a support with a pair of tweezers and welds the support to the base. She does the same with the second support and puts the finished base in the box. To be able to go on like this Frau Heinrich has extended her movements over the years, within the limits of piecework. She has invented a few additional movements, but still manages to get through the required amount of work. She doesn’t simply pick up the materials and weld them together beneath the electrode. If you watch her

\(^{162}\) Kluge and Negt, 2014, pp. 133-134. Emphasis original.

you see that she spreads out her arms as if she were flying, draws them together and picks up the materials with both hands as if she had come upon them by pure chance. As she does this she rocks back and forwards, treads on the foot pedal three or four times, and only then welds the first part. Then out go the arms again. Frau Heinrich uses all of this to help her get through her piecework, otherwise it would be superfluous movement and she couldn’t afford it. She does exactly the same thing with her feet. She has to weld two spots on every unit, while the other women have to do from twelve to sixteen. But here again Frau Heinrich adds a few movements. While she picks up the pieces and before she puts them under the electrode she treads three or four times on the foot pedal, and only then does the real welding. Frau Heinrich has developed these movements in resistance to the inhuman piecework.164

Frau Heinrich added the winglike movements and the extra treading on the foot pedal as a counter manoeuvre to balance the abstraction of her piecework.165

The political economy of labour power in History and Obstinacy intersected with contemporary political economy in the Federal Republic of Germany.166 Four

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165 Kluge and Negt, 2014, pp. 120-147. Negt wrote of this welder, “she is not working precisely when the Taylorist would say that she is working. She solders her small parts as an extended arm of dead labour, as an appendage of a mechanised operation. At that moment, she does almost nothing. Unless she is thinking something to herself or listening to music in order to endure it. When the capitalist purchases the labour force of this woman, his job is already over. In his mind, he already sees the completed work. For the woman, the labour with herself is just beginning. She is a life-form that must first integrate itself into the operation. To do that, she has to transform herself, to accomplish an act of balance. This is not simple. She could also refuse. She has to carry out an entire sequence of labours to bring herself to go into a factory that does not conform to her nature.” Negt in Fore, 2014, pp. 450-451n36.
166 Fore writes of Foucault’s 1979 lectures at the Collège de France in his introduction to History and Obstinacy. See Fore, 2014, p. 20.
months after the solo exhibition of Giese opened at the Kunsthalle Düsseldorf in September 1978, the first of a series of twelve lectures was given on a Wednesday night in January at the Collège de France in Paris. The course, which was open to the public, filled two lecture theatres.\textsuperscript{167} Given by Michel Foucault, these lectures have become known as \textit{The Birth of Biopolitics}. At the Collège de France, professors taught their original research,\textsuperscript{168} and in the course Foucault taught in 1979, he presented his research of 1978, the same year as the solo exhibition of Giese at the Kunsthalle Düsseldorf.\textsuperscript{169}

The course was supposed to have been about biopolitics, which Foucault defined as “the attempt, starting from the eighteenth century, to rationalise the problems posed to governmental practice by phenomena characteristic of a set of living beings forming a population: health, hygiene, birthrate, life expectancy, race …”\textsuperscript{170} However, what Foucault had intended to be the introduction to this filled the whole course.\textsuperscript{171}

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\textsuperscript{167} Ewald and Fontana, 2008, p. xiii.
\textsuperscript{168} Ewald and Fontana, 2008, p. xiii.
\textsuperscript{169} Gérard Petitjean wrote of Foucault’s lectures in 1975 in \textit{Le Nouvel Observateur}, “When Foucault enters the amphitheatre, brisk and dynamic like someone who plunges into the water, he steps over bodies to reach his chair, pushes away the cassette recorders so he can put down his papers, removes his jacket, lights a lamp and sets off at full speed. His voice is strong and effective, amplified by loudspeakers that are the only concession to modernism in a hall that is barely lit by light spread from stucco bowls. The hall has three hundred places and there are five hundred people packed together, filling the smallest free space … There is no oratorical effect. It is clear and terribly effective. There is absolutely no concession to improvisation. Foucault has twelve hours each year to explain in a public course the direction taken by his research in the year just ended. So everything is concentrated and he fills the margins like correspondents who have too much to say for the space available to them. At 19.15 Foucault stops. The students rush towards his desk; not to speak to him, but to stop their cassette recorders. There are no questions. In the pushing and shoving Foucault is alone. Foucault remarks: ‘It should be possible to discuss what I have put forward. Sometimes, when it has not been a good lecture, it would need very little, just one question, to put everything straight. However, this question never comes. The group effect in France makes any genuine discussion impossible. And as there is no feedback, the course is theatricalised. My relationship with the people there is like that of an actor or an acrobat. And when I have finished speaking, a sensation of total solitude …’” Petitjean cited by Ewald and Fontana, 2008, p. xiv.
\textsuperscript{170} Foucault, 2008, p. 317.
\textsuperscript{171} Foucault, 2008, p. 317.
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subject of the lectures became liberalism in the sense of “a principle and method of the rationalisation of the exercise of government”.\textsuperscript{172} And one example of this was contemporary German liberalism.

In the economic program of the ordoliberals, developed in the 1930s in Freiburg, Germany, Foucault saw a break with eighteenth and nineteenth century liberalism.\textsuperscript{173} In liberalism in the eighteenth and nineteenth centuries, laissez-faire was the governmental practice of the market economy—leaving the market to its own devices. The ordoliberals, however, argued that competition as the principle of the market was not a “natural given”—its conditions had to be produced.\textsuperscript{174} Therefore, in the ordoliberals’ program, “One must govern for the market, rather than because of the market.”\textsuperscript{175} One example of this governing for the market was, as Foucault wrote, “Basically, it has to intervene on society so that competitive mechanisms can play a regulatory role at every moment and every point in society and by intervening in this way its objective will become possible, that is to say, a general regulation of society by the market.”\textsuperscript{176} The ordoliberals’ program, which was a form of neoliberalism, was implemented postwar in the Federal Republic.\textsuperscript{177} As Fore has written, Kluge and Negt’s formulation of primitive accumulation as the permanent expropriation of labour capacities within the human subject therefore intersected with neoliberal economics in the Federal Republic.

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\item[172] Foucault, 2008, p. 318. “It seemed to me that these problems were inseparable from the framework of political rationality within which they appeared and took on their intensity. This means “liberalism,” since it was in relation to liberalism that they assumed the form of a challenge. How can the phenomena of “population,” with its specific effects and problems, be taken into account in a system concerned about respect for legal subjects and individual free enterprise? In the same of what and according to what rules can it be managed?” Foucault, 2008, p. 317.
\item[173] On ordoliberalism, see Ptak, 2009.
\item[174] Foucault, 2008, pp. 119-121.
\item[175] Foucault, 2008, p. 121.
\item[176] Foucault, 2008, pp. 129, 145.
\item[177] With some differences, see Foucault, 2008, pp. 144-145.
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in the late 1970s.\textsuperscript{178} As he writes, “Using sociological and behaviourist approaches for managing ‘human capital,’ neoliberal economics territorialised realms of existence that, although located beyond the formal bounds of the workplace and therefore previously ignored by classical quantitative economists, were now deemed essential for the efficient husbandry of the workforce.”\textsuperscript{179} As I show in what follows, the political economy of labour power in \textit{History and Obstinacy} illuminated the dialectic of immateriality and materiality in the luminous sculptures exhibited at the Kunsthalle Düsseldorf in September 1978.

With the emission of an afterglow by the phosphorescent paint Giese had used to paint the sculptures in the darkened room in the Kunsthalle, the sculptures were transformed from three-dimensional objects into notations of angles and geometric shapes. In chapter 1, I compared this dematerialisation of Giese’s sculptures with physiologist Étienne-Jules Marey’s cinematic analysis in which models in black bodysuits were photographed running in front of the black screen (Fig. 11). “Before the black screen, humans were transposed into graphic notations.”\textsuperscript{180} Although motionless, Giese’s sculptures were analogous to the human bodies in front of the black screen in Marey’s physiological experiment in the sense that they dematerialised into luminous notations in the dark. Marey’s methods, which in this experiment resulted in the abstraction of the human body, had applications. One of these applications produced another type of abstraction. As Elcott wrote, “Their methods were developed by the engineer Charles Fremont and, later, by Frank B. Gilbreth, the founder of Scientific Management, to optimise the productivity of workers.”\textsuperscript{181} The dematerialisation of Giese’s Sculptures with Luminescent Paint at the Kunsthalle Düsseldorf in 1978 bore

\textsuperscript{178} Fore, 2014.
\textsuperscript{179} Fore, 2014, p. 19.
\textsuperscript{180} Elcott, 2016, p. 27.
\textsuperscript{181} Elcott, 2016, p. 27.
significant visual similarities to the aesthetic representation of the abstraction of labour in Frank and Lillian Gilbreths' time-motion studies.182

Developed in the early twentieth century, Scientific Management involved measuring the way workers undertook tasks to determine the most efficient way to perform them.183 Sharon Corwin has described the method of the Gilbreths’ time-motion studies,

These experiments, drawing on Etienne-Jules Marey’s innovations in chronophotography, were carried out by placing small lights on the hands of workers. The workers were then instructed to repeat a task while their movements, which registered photographically as lines of light, were recorded through the time exposure of the camera. These photographic motion studies—or “cyclegraphs,” as they were called—were intended to provide visual data that could be used to establish the most efficient way of conducting a task. From these diagnostic studies, three-dimensional wire models were constructed by following the path of light patterns in the photographs. By visualising what the Gilbreths called the “paths of least waste,” these strange sculptural models were meant to instruct the workforce on the most efficient way of carrying out a task. The idea was that workers could imitate the path of motion illustrated by the cursive line of the wire model in order to increase their own efficiency (Fig. 18).184

183 Corwin, 2003, p. 139.
184 Corwin, 2003, pp. 141-142.
As Corwin argued, efficiency had an aesthetic in the Gilbreths’ time-motion studies.\textsuperscript{185} “The time exposure of the film reduces the labouring body to a blur of motion—a mere ghost of itself—while the act of work registers photographically as lines of light. In some cases, the worker is completely elided, leaving only light traces abstracted against a blank background” (Fig. 19).\textsuperscript{186} As Corwin argued about a sketch in white paint on black paper resembling the Gilbreths’ cyclegraphs that was found in their archive, “Once abstracted to white marks on a black background, the act of labour is fully detached from the worker; in this manner, the Gilbreths’ motion studies offer a particularly vivid articulation of Karl Marx’s notion of “alienated labour.”\textsuperscript{187} As I wrote above, in *History and Obstinacy*, Kluge and Negt view primitive accumulation as a permanent process in which labour capacities within the human subject are expropriated by capital. With this separation of labour capacities within labour power, labour becomes alienated.\textsuperscript{188} Although the lights affixed to the hands of workers in the Gilbreths’ time-motion studies involved a different light technology to the phosphorescent paint with which Giese had painted his sculptures, the transformation of work and the body of the worker into lines of light against a dark background in the Gilbreths’ cyclegraphs was similar to the dematerialisation of Giese’s luminous sculptures in the dark at the Kunsthalle.

In an untitled cyclegraph from 1913 (Fig. 20), a time-motion study of picking up photographs, the operator who picked up the photographs and their work picking them up were invisible, the operator’s hand movements visible as lines of light against a dark background. Like this transformation of the body of the operator and their labour into lines of light on a dark ground, Giese’s sculptures were visible to viewers as

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\textsuperscript{185} Corwin, 2003, pp. 139-147.
\textsuperscript{186} Corwin, 2003, p. 144.
\textsuperscript{187} Corwin, 2003, p. 144.
\textsuperscript{188} Corwin, 2003, p. 144-146; Kluge and Negt, 2014, pp.120-136.
\end{flushleft}
dematerialised glowing angles and geometric shapes in the dark, as Amine Haase’s
review showed. The dematerialisation of Giese’s sculptures therefore resembled one
visualisation of the abstraction of labour in the history of management, reproducing
capital’s logic of abstraction.\textsuperscript{189} Although this connection between Giese’s sculptures
and human bodies in both Marey’s cinematic analysis of running and the Gilbreth’s
cyclegraphs may seem a distant one, as I show below, the meaning of Giese’s works in
1978 was in fact closely interrelated with the working human body through Kluge and
Negt’s political economy of labour power, and workplace health and safety regulation.

As Kluge and Negt argue in \textit{History and Obstinacy}, at the same time as capital
expropriates labour capacities, it also precipitates obstinacy. “\textit{Every act of fettering,
plundering, and exploitation inflicted on a human characteristic entails, on the one
hand, a loss. Every adversity elicits, on the other hand, resistance, invention, a possible
way out.}”\textsuperscript{190} Labour capacities were produced out of primitive accumulation, the
separation of peasants from the commons in the Enclosure Acts. In \textit{History and
Obstinacy}, primitive accumulation meant the permanent expropriation by capital of

\begin{footnotesize}
\textsuperscript{189} Corwin, 2003, pp. 139-147. On “the principle of abstraction”, Jameson writes, “for
Negt and Kluge, as for the Marxist tradition generally and Adorno in particular, a more
168. Fore writes of “capitalism’s principle of abstraction”, “Thus, for all of the
emancipatory power that the collaborations of Negt and Kluge have vested in the
category of “experience” (\textit{Erfahrung}) as the root of material particularity and as a
source of resistance to capitalism’s principle of abstraction, empirical experience, for
them, is neither primary nor pure. It is not given, but hard-won, assembled through acts
of labour.” Fore, 2014, p. 31. “While Marx evoked aesthetic abstraction in the intro of
\textit{The Grundrisse} only to bracket it off from concrete abstraction in the realm of
production, circulation, and consumption, Mansoor traces the ways in which aesthetic
abstraction symptomises dynamics in concrete abstraction across a spectrum of
responses, sometimes “transparent” to, sometimes in dialectical response to, and
occasionally in manifest resistance to capitalist abstraction understood as the extraction
of surplus labour to be realised on the market.” Jaleh Mansoor Biography, URL:
http://archive.is/WLZLM My argument about Giese’s luminous sculptures differs from
Mansoor’s focus in the sense that I analyse abstraction in the sense of the
dematerialisation of works of art and its relation to the abstraction of capitalism, and not
aesthetic abstraction in the sense of the opposite of figuration.

\textsuperscript{190} Kluge and Negt, 2014, p. 98.
\end{footnotesize}
these labour capacities. However, at the same time as labour capacities were separated within labour power—primitive accumulation—this separation produced its opposite, the need for association among capacities, which was a labour capacity in its own right. As Kluge and Negt write, “The need for the confederation and association of producers (as a subjective labour capacity and labour power) does not objectify itself because of the obstinacy of these needs.”¹⁹¹ Hence primitive accumulation at the same time as expropriating labour capacities also produces obstinacy. And if labour capacities were to associate, this would bring about a breach. Kluge and Negt write,

Our main investigatory interest focuses on the category of labour—among so many others—that investigates the ability of labour capacities to control the historical product, and not to be ruled by it. One might initially think that for such an emancipatory intention, the material aggregation of capacities and forces [Kräfte] must be much larger than is the case for labour capacities established in alienation. In fact, the materiality of the object (of historical production) and the materiality of labour capacities compete with one another. But this comparison does not pertain just to quantities. In certain circumstances, the materiality of labour capacities that ensconce themselves in the existing conditions is even quantitatively higher than the labour capacities necessary for a breach. This is because high volumes of labour power must be expended in order to endure those conditions. The material difference—and therewith the central point of the comparison—lies in the different shape and in the quality of alliances that labour

capacities enter into among themselves. This depends not on any quantity, but rather on a phenomenal degree of cooperation.\textsuperscript{192}

Between the labour power expended in production and that used up in the balance economy to compensate for abstract labour, there is enough labour power for a breach, were capacities to associate.\textsuperscript{193}

As Jameson pointed out in his review of \textit{Geschichte und Eigensinn}, the first edition of \textit{History and Obstinacy}, the word “separation” in Kluge and Negt’s book referred not only to the separation of labour power from the means of production in primitive accumulation, but also to “all the catastrophes of history”.\textsuperscript{194} The example of reliability, the product of the “group of labour capacities that combine to form the feeling of responsibility”,\textsuperscript{195} shows the counterpolitics of separation described above. The feeling of responsibility was a composite of characteristics, and this combination of characteristics could produce different results. “The outcome of this is reliability, \textbf{whatever it is}”.\textsuperscript{196} Fore described reliability as “a psychological characteristic cultivated in modern bureaucratic regimes: this particular combination of dependability, technical precision, blind credulity, and submission to authority is a trait that made the industrial genocide of Auschwitz possible”.\textsuperscript{197} At the same time, reliability exposed the Nixon administration’s incursion into Cambodia during the war in Vietnam.\textsuperscript{198} Kluge and Negt write of a technical officer in the United States Air Force who realised that a revised set of bombing coordinates given at late notice were located in Cambodia and

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\textsuperscript{192} Kluge and Negt, 2014, pp. 146-147. Emphasis original.  \\
\textsuperscript{193} Kluge and Negt, 2014, pp. 146-147.  \\
\textsuperscript{194} Jameson, 1988, p. 160.  \\
\textsuperscript{195} Kluge and Negt, 2014, p. 247.  \\
\textsuperscript{196} Kluge and Negt, 2014, p. 247.  \\
\textsuperscript{197} Fore, 2014, p. 53.  \\
\textsuperscript{198} Kluge and Negt, 2014, pp. 247-249; Fore, 2014, p. 53.
\end{flushright}
not Vietnam, and were different to the coordinates recorded on the computer. The technical officer reported this inconsistency to Congress out of a feeling of responsibility. Therefore, both Auschwitz and the exposure of the American incursion into Cambodia were instantiations of reliability. In one case, reliability was oppressive, and in another, it was emancipatory.

I argue that these counterpolitics of reliability were visible in the five phosphorescent sculptures in ‘Rainer Giese: Selected Works’. On the one hand, in the dematerialisation of the sculptures to abstracted notations, the phosphorescent colour of Giese’s Sculptures with Luminescent Paint reproduced the logic of capital. On the other hand, like reliability, the phosphorescent colour had different results. One of the everyday applications of the Wiedolux phosphorescent paint that asserted the materiality of the works because it had everyday uses was its health or safety application. As the monthly journal read by scientists, engineers and equipment manufacturers working with corrosion, *Materials and Corrosion*, had reported in 1971, road safety was a possible application of Wiedolux fluorescent paints.\(^\text{199}\) Giese had painted the sculptures with phosphorescent Wiedolux paints, which had health or safety applications. As *Materials and Corrosion* had reported, Wiedolux phosphorescent paints were used in the production of Schutzraumschildern, one translation of which was air raid shelter signs, another signs x-ray suites. However, at the same time as the paint that Giese had used was a form of health or safety technology, it was itself a potential workplace health and safety hazard in 1978.

On 5 July 1978, Katharina Schmidt wrote of the Kunsthalle’s plan to exhibit the work of Giese in September to, of all places, the public health department.\(^\text{200}\) For the upcoming exhibition, the Kunsthalle intended to restore some of Giese’s Sculptures

\(^{199}\) *Werkstoffe und Korrosion*, 1971, p. 724.
\(^{200}\) SD, Akte der Kunsthalle Düsseldorf, 0-1-4-40970.
with Luminescent Paint. The trade of some luminescent paints had been discontinued because they were potential health and safety risks, and Schmidt was writing to ask if the Kunsthalle were able to use the luminescent paints Giese had painted the sculptures with to restore and exhibit them.

We ask you for information about this soon, whether the intention to restore and exhibit the works of Rainer Giese at the Kunsthalle is met with any objections, as we would have to change the concept of the first exhibition of this highly talented artist, an important part of whose work would fall under a possible verdict if the luminescent material works were not allowed to be exhibited. I would be very grateful to you for a quick answer.

On 13 July, Schmidt was written a reply from the Staatliches Gewerbeaufsichtsamt Düsseldorf, the department enforcing workplace health and safety regulations. In this letter, the Kunsthalle was given the green light to use the five Wiedolux luminescent

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201 Schmidt described the sculptures the Kunsthalle planned to restore as several Stäbe, or beams, and a cube. The cube and five Stäbe were exhibited in ‘Rainer Giese: Selected Works’ when it opened on 2 September 1978. In an installation view of the works, three of the five Stäbe on view looked as if they had been painted with green phosphorescent paint. However, Schmidt’s description of the Stäbe in her letter to the public health department differed in part from the description in the catalogue of ‘Rainer Giese: Selected Works’ of the Leuchtstäbe, as the beams painted with luminescent paint were called in the catalogue. However, as she called the works Stäbe in the letter and her description of them was closest to the description of the Leuchtstäbe out of the sculptures with luminescent paint described in the catalogue, it is likely that the Stäbe she wrote of were the Leuchtstäbe. SD, Akte der Kunsthalle Düsseldorf, 0-1-4-40970; Düsseldorf, 1978, p. 7.


203 SD, Akte der Kunsthalle Düsseldorf, 0-1-4-40970.
paints that Giese had used to restore the sculptures.\textsuperscript{204} The letter also included instructions for the handling of the paints,

It is to be seen to that the aforementioned paints cannot be absorbed with saliva into the body.

Certainly these paints, as with the majority of paints and lacquers, are easily flammable. The painting is therefore allowed to be undertaken only in well-ventilated spaces, best outside. Such works are prohibited in carpenters’ workshops.\textsuperscript{205}

At the time of the exhibition, the department enforcing workplace health and safety regulations permitted the Kunsthalle to use the Wiedolux paints to restore the relevant

\textsuperscript{204} Giese had painted the beams and the cube with three different green phosphorescent lacquers, a white luminescent paint ground, and a colourless luminescent paint topcoat from the Wiedolux line of luminescent paints by the company Wiederhold. He had also used another green luminescent colour from the company Leuchtstoffwerk. See SD, Akte der Kunsthalle Düsseldorf, 0-1-4-40970. Ellen Jansen’s recent research on the restoration of two beams painted by Giese with phosphorescent paint in the collection of the Rijksmuseum Twenthe in Enschede, The Netherlands has shown that the production of the pigment in the phosphorescent paint layer of this work has since been discontinued. “For this artwork, Giese used a commercial paint called Wiedolux. FTIR analysis showed that the zinc sulphide pigments in this paint are doped with cadmium, which has great influence on its properties. Because of health regulations this type of pigment cannot be produced anymore.” Jansen, 2014, p. 14. See also Jansen, ‘Go with the Glow’, URL: \texturl{http://www.conservation-restoration-training.nl/about/projects/projects/treatment-results/go-with-the-glow/} Neither the reply to Schmidt’s letter to the public health department in 1978 nor Jansen in these sources discussed the colour from the company Leuchtstoffwerk included in Schmidt’s letter. It is possible that the work in the collection of the Rijksmuseum Twenthe was not included in the work group Sculptures with Luminescent in the catalogue ‘Rainer Giese: Selected Works’ nor exhibited at the Kunsthalle in 1978. They nonetheless have the potential to illuminate the works that were.

\textsuperscript{205} “Es ist darauf zu achten, dass die vorgenannten Farben nicht mit dem Speichel in den Körper aufgenommen werden können.

Allerdings sind diese Farben, so wie auch die meisten Farben und Lacke leicht brennbar. Das Lackieren darf daher nur in gut durchlüfteten Räumen, am besten im Freien, durchgeführt werden. In Schreinereien sind solche Arbeiten unzulässig.” SD, Akte der Kunsthalle Düsseldorf, 0-1-4-40970.
works. However, the letter still included instructions for managing the risk of the paint as a fire hazard and hazardous substance. Like many other paints, the paints Giese had used were flammable, and as the *Staatliches Gewerbeaufsichtsamt* advised, they could not be ingested. These letters between the Kunsthalle Düsseldorf, the public health department, and the department enforcing workplace health and safety regulation showed that the exhibition of the five sculptures Giese had painted with luminescent paint in the solo exhibition of the artist at the Kunsthalle Düsseldorf in 1978 was subject to workplace health and safety regulations.\(^{206}\) What this showed was that at the same time as the paint was a form of health or safety technology, in order to restore some of the sculptures for the exhibition, the health and safety hazards of the paint itself had to be managed.

As we have seen, the phosphorescent colour of Giese’s works was immaterial and material at the same time in the sense that on the one hand, the afterglow emitted by the works in the dark caused the effect of the dematerialisation of the works described by the critic Amine Haase. On the other hand, the paint that caused this effect had health or safety applications, which reasserted the materiality of the works. As both a form of health or safety technology and a potential workplace health and safety hazard, like Giese’s luminous sculptures in 1978, as Colin Lang has written, Imi Knoebel’s work *Room 19* represents the work of exhibiting it. Of the exhibition of the work in the 1969 *Winterrundgang*, the exhibition of student work at the Kunstakademie Düsseldorf, Lang writes, “To those who witnessed *Room 19* in this state, the work must have seemed as though it were in the process of being unpacked from a shipping container or other storage unit, with the workgroups awaiting some impending arrangement in the hallway. This has been a recurring feature of *Room 19* in all of its various manifestations, where some works appear to be intentionally installed or positioned, while other parts linger in a form of curatorial limbo.

*Room 19*, in the case of the version presented at the *Winterrundgang*, staged a process of its own coming into being as an object taken from one site and made to confirm to the space of another. The various states of the respective typological groups mapped the transformation that so many artworks undergo as they are housed, transported, unpacked, and finally installed in a given exhibition space.” Lang, 2010, pp. 65-66; On the *Akademierundgang*, see Mehring, 2008, p. 12.
the materiality of the works was itself also dialectical. And this opened onto another dialectic.

In his history of the working day in England in *Capital*, Marx wrote of workplace health and safety regulations as a struggle between capital and labour. “The establishment of a normal working day is the result of centuries of struggle between the capitalist and the worker. But the history of this struggle displays two opposite tendencies.” On the one hand, from the middle of the 1300s to the end of the 1600s, capital tried to lengthen the working day. As Marx wrote, “capital has one sole driving force, the drive to valorise itself, to create surplus-value, to make its constant part, the means of production, absorb the greatest possible amount of surplus labour.” Therefore, in answer to Marx’s question “What is the working day?” capital’s reply was “24 hours, with the deduction of the few hours of rest without which labour-power is absolutely incapable of renewing its services.” On the other hand, the working class resisted, and in 1833 a normal working day was legislated by the Factory Act in cotton, wool, flax and silk factories. The Factory Acts that legislated a normal working day also included clauses on workplace health and safety. “What could be more characteristic of the capitalist mode of production than the fact that it is necessary, by Act of Parliament, to force upon the capitalists the simplest appliances for maintaining cleanliness and health?” One of these provisions was for safety devices on horizontal shafts in factories, and the history of this provision showed that the normal working day and the regulation of workplace health and safety were the product of class struggle.

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207 Marx, 1990, p. 382.
210 Marx, 1990, p. 375.
212 Marx, 1990, p. 611.
As factory inspector Leonard Horner, one of the stars of Capital, reported in 1855, “a very large number” of factory owners resisted this provision.\textsuperscript{214} Factory owners started the National Association for the Amendment of the Factory Laws in 1855, and as Marx described,

The factory-owners did not rest until they had obtained a judgement from the Queen’s Bench Division to the effect that the Act of 1844 did not prescribe any safety-guards for horizontal shafts if these were more than seven feet above ground level, and they finally managed in 1856 … to put through a new Act of Parliament which was sufficiently to their satisfaction. The Act actually withdrew from the workers all special protection and referred them to the ordinary courts if they wished to seek compensation for injuries caused by machine accidents – sheer mockery given English legal costs. It also made it almost impossible for factory-owners to lose a case, by a very neatly worded clause providing for expert testimony.\textsuperscript{215}

As this history of English factory legislation showed, in the capitalist mode of production, workplace health and safety regulations were a struggle between labour and capital. In the production of the solo exhibition of Giese at the Kunsthalle Düsseldorf in 1978, the phosphorescent paint was a potential health and safety hazard, and the restoration of some of the sculptures for the exhibition was subject to workplace health

\textsuperscript{214} Marx, 1981, p. 183.
and safety regulations, which as Marx showed, were a form of labour’s resistance to capital.  

The phosphorescent colour of the sculptures in ‘Rainer Giese: Selected Works’ therefore was at the same time not only material, but also materialist. In *History and Obstinacy*, Kluge and Negt write of primitive accumulation as a permanent process in which labour capacities within the human subject are expropriated by capital. With this separation of labour capacities within labour power, labour becomes alienated. As Corwin has shown, this abstraction had an aesthetic. The transformation of work and the body of the worker into lines of light against a dark background in the Gilbreths’ cyclegraphs was similar to the way Giese’s luminous sculptures would have looked to viewers in the darkened room in the Kunsthalle Düsseldorf in 1978. The dematerialisation of Giese’s sculptures therefore worked in a similar fashion to one visualisation of the abstraction of labour in the history of management, reproducing capital’s logic of abstraction. At the same time, the Wiedolux phosphorescent paint with which Giese had painted the sculptures had everyday applications. A material with health or safety applications, the phosphorescent paint asserted the materiality of the works.

And yet, the paint was also a potential health and safety hazard as became clear in the restoration of the some of the sculptures for the exhibition at the Kunsthalle in 1978. The paint therefore showed that the exhibition was subject to workplace health and safety regulations, which as Marx argued, were a form of labour’s resistance to capital. The materiality of the works was therefore itself dialectical: it was a form of health or safety technology as well as a potential health and safety hazard, which in turn

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216 For a profile of workplace health and safety in Germany, see WHO, 2002. On the politics of accident insurance and protective legislation under Bismarck, see Steinmetz, 1993.

217 Corwin, 2003, pp. 139-147.
unfolded onto yet another dialectic: as a potential hazard, the use of the paints in the restoration of the sculptures for the 1978 exhibition was regulated by workplace health and safety regulations, which were produced by the struggle between labour and capital. Hence, the phosphorescent colour of Giese’s works was like reliability in Kluge and Negt’s political economy of labour power: both the immateriality of the works and their materiality were the result of the paint’s emission of an afterglow in the darkened room at the Kunsthalle, and like the greatly differing outcomes that were nevertheless still instances of reliability, the politics of the immateriality and materiality of the works were different. The (counter)politics of the phosphorescent colour of the sculptures was on the one hand oppressive, and on the other hand, emancipatory.

Giese had started work on the luminous sculptures in 1966, when he was a student in Beuys’ class at the Kunstakademie Düsseldorf. In 1967, the Imis’ classmate Johannes Stüttgen and Beuys founded the Deutsche Studentpartei (German Student Party, DSP). In 1968/69, Jörg Immendorff, who worked in Room 19 with the Imis, and Chris Reinecke produced the LIDL-Akademie, “a mock Kunstakademie organisation complete with shoddy buildings, sporting events, and staged performances.” These politicised works of art at the Kunstakademie coincided with the Ausserparlamentarische Opposition (Extraparliamentary Opposition, APO) in the Federal Republic of Germany in the 1960s in which students were active. As Jeremy Varon has written, “Early on, the APO opposed West German rearmament, the basing of nuclear weapons in West Germany, and the proposed “Emergency Laws” (Notstandgesetze), which would permit the curtailment of democratic rights in times of

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218 In an interview in 1982, Knoebel said to Stüttgen of Beuys, “After all, it wasn’t for nothing when he founded his German Student Party with you.” Knoebel cited by Stüttgen, 1987, p. 28.
220 Varon, 2004, pp. 31-35.
Students critiqued continuities between the Nazi past and the Federal Republic, including personnel in the judiciary and military, and opposed the Vietnam War. Benjamin Buchloh has written of Beuys,

No other artist succeeded so systematically in aligning himself at a given time with artistic and political currents, absorbing them into his myth and work and thereby neutralising and aestheticising them. Everybody who was seriously involved in radical student politics during the 1960s in Germany, for example, and who worked on the development of an adequate political analysis and practice, laughed at or derided Beuys’ public relations move of founding his International Student Party.

Colin Lang has written of the Imis as

refusing to join the party as official members, objecting to what they understood as a false dichotomy between political engagement and socially-resonant artistic production. Nonetheless, as they had with previous actions for Immendorff’s and Reinecke’s LIDL projects, the Imis were intimately involved with constructing many of the makeshift structures that were used in the related performances, including the frame for the famous LIDL Akademie tent that was

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  \item \textsuperscript{221} Varon, 2004, p. 31.
  \item \textsuperscript{222} Varon, 2004, pp. 31-35.
  \item \textsuperscript{223} Buchloh, 2000, p. 43. In a review of H. P. Riegel’s biography of Beuys, Sven Lüttilken described Riegel’s discussion of Beuys’ “attempt to hijack the student movement and the APO (extra-parliamentary opposition) of the late 1960s with the \textit{Deutsche Studentpartei} (German Student Party).” Lüttilken, 2013, p. 146.
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propped directly in front of the Kunstkademie during the almost week-long closure in May, 1969.¹²²⁴

The signature “IMI/S” is visible on a petition against the American war in Vietnam made by Immendorff (Fig. 21). Artistic debates at the Kunstkademie intersected with politics,²²⁵ and the autonomous, abstract geometric sculptures that Giese produced in this context, including the sculptures he painted with luminescent paint, should be read not only as an aesthetic strategy, but as part of an oppositional political strategy.²²⁶ Similarly, in the late 1970s when the sculptures were exhibited at the Kunsthalle Düsseldorf, they instantiated the counterpolitics of obstinacy.

However, the safety applications of the paint with which Giese had painted the sculptures were not its only application possibilities. As the journal Materials and Corrosion had informed its readers in August 1971, another application of Wiedolux phosphorescent paints was car licence plates, “Under the phosphorescent luminescent lacquers are drawable, embossable special qualities, which are being used advantageously for the production of luminescent license plates (for the time being only with special permit and not to be mistaken with the already licensed retroreflectant plates) or of Schutzraum [air raid shelter] signs.”²²⁷ Used to produce luminescent licence plates, the paint had surveillance application possibilities.²²⁸ Luminescent licence plates would have been visible at night, therefore making vehicle owners more easily identifiable.

¹²²⁵ Lang, 2010.
¹²²⁶ Lang, 2010.
¹²²⁸ I am grateful to Anthony White for this connection.
Surveillance of West Germans was an issue in the late 1970s. ‘Rainer Giese: Selected Works’ opened at the Kunsthalle Düsseldorf only one year after the German Autumn in September and October 1977, which started with the kidnapping of Hans Martin Schleyer, Director of Daimler Benz and former SS Hauptsturmführer, by the Rote Armee Fraktion (Red Army Faction).\textsuperscript{229} When the Red Army Faction’s demand that its members imprisoned in Stammheim be released was refused, the Popular Front for the Liberation of Palestine (PLFP) hijacked a Lufthansa flight on 13 October. After a West German counterterrorism unit, and special task forces from Interpol, and Somalia, where the plane had landed, raided the plane four days later, freeing the hostages, Red Army Faction members Andreas Baader, Gudrun Ensslin, and Jan Karl Raspe died in custody, and the RAF claimed responsibility for Schleyer’s death. As Fore writes, the film Deutschland im Herbst (Germany in Autumn),\textsuperscript{230} released in the same year as the exhibition of Giese at the Kunsthalle, “provides a succinct record of the national imaginary at this historical moment, an imaginary dominated by a crepuscular iconography of funereal scenes and collective acts of mourning.”\textsuperscript{231} The film was a series of episodes by different directors, one of whom was Alexander Kluge. As Thomas Elsaesser wrote, “Almost all the episodes in Germany in Autumn, for instance, convey a climate of paranoia: anyone might be a terrorist, or worse still, anyone might take one for a terrorist.”\textsuperscript{232} Of the episode directed by, and starring, Rainer Werner Fassbinder, Elsaesser wrote,

The episode shows Fassbinder, alternately naked and wrapped in an untidy bathrobe, restless and sweating, in his sombre Munich apartment, frantic about

\textsuperscript{229} Varon, 2004, pp. 197-198; Scribner, 2015, pp. 30-31.
\textsuperscript{230} United States, 2010.
\textsuperscript{231} Fore, 2014, p. 18.
\textsuperscript{232} Elsaesser, 1999, p. 270.
the news blackout, cynically incredulous about the Stammheim suicides, in fear of possible police raids and house searches, on the verge of a nervous breakdown, finally collapsing on the floor in a fit of uncontrollable, hysterical weeping.\textsuperscript{233}

The paranoia in \textit{Germany in Autumn} described by Elsaesser is illuminated by the “fixation” in the Federal Republic on the Sympathisant (sympathiser).\textsuperscript{234} As Varon has described, “The ‘sympathisers’ were an imprecise category of alleged helpers and fellow travellers whom security forces, politicians, and the media considered an integral part of the terrorist threat.”\textsuperscript{235} As Varon has described, in the opinion of Bernhard Vogel, CDU Ministerpräsident of Nordrhein-Westfalen—the federal state of which Düsseldorf was capital—“a sympathiser ‘could be anyone who says Baader-Meinhof group (\textit{Gruppe}), instead of Baader-Meinhof gang (\textit{Bande}).’”\textsuperscript{236} Varon writes,

The intense concern with terrorism’s alleged supporters had far-reaching consequences. First and foremost, it dictated that police cast their net of suspicion widely. The security forces paid closest attention to those groups considered most likely to produce new terrorists and their helpers: students, intellectuals, and disaffected youths. More generally, focus on Sympathisanten created a climate of suspicion and accusation.\textsuperscript{237}

Elsaesser wrote of Fassbinder’s episode in \textit{Germany in Autumn},

\textsuperscript{233} Elsaesser, 1999, p. 280.
\textsuperscript{234} Varon, 2004, p. 257.
\textsuperscript{235} Varon, 2004, p. 257.
\textsuperscript{236} Varon, 2004, p. 259.
\textsuperscript{237} Varon, 2004, p. 259.
What seems an unselfconscious display of shameless vulnerability is in fact a form of exhibitionism that tries to turn the machinery of surveillance – in *Germany in Autumn* the state is present through patrol-car sirens wailing at night and mounted policemen wielding camcorders filming the mourners at the Ensslin funeral – into ‘showing itself’ and thus allowing Fassbinder to manifest a kind of defiant compliance in which the spectator is necessarily implicated as much as s/he is excluded.\(^{238}\)

In this context, the use of the phosphorescent paint in the production of licence plates had disturbing implications. Phosphorescent licence plates would have been visible at night, therefore making vehicle owners more easily identifiable, and with this increase in visibility, more easily tracked. As I argued above, on the one hand, the safety applications of the phosphorescent paint embodied a materialist politics that resisted the abstraction of capitalism. The materiality of the works was dialectical: at the same time as the paint was a form of health or safety technology, it was itself a potential workplace health and safety hazard. As a potential hazard, it was the object of workplace health

\(^{238}\) Elsaesser, 1999, p. 282. Charity Scribner’s description of Red Army Faction leader Ulrike Meinhof’s experience of solitary confinement in the Women’s Psychiatric Section of the Cologne-Ossendorf Prison in 1972/73 evokes the dematerialisation of Giese’s luminous angle constructions from three-dimensional sculptures to two-dimensional notations in the dark at the Kunsthalle Düsseldorf in 1978, “Constantly exposed to fluorescent light, separated from other inmates in a soundproofed cell, she lost her sense of location and began to detach from the material world. As Margrit Schiller, another RAF member, recounted in her memoir *Es war ein harter Kampf um meine Erinnerung* (It Was a Real Struggle to Remember, 1999), the voids of the dead section depleted prisoners’ abilities to ‘distinguish internal perceptions from external reality.’ The austerity of internment delivered Meinhof into an altered state: the silence, the stillness seemed to cordon off a space outside of history, and she began to see the confines of her cell dissolve into a surreal figment. As Meinhof’s distorted perceptions transubstantiated the prison architecture, reducing cubic space to two dimensions, her life shifted down to the horizontal and vertical of a celluloid filmstrip, and then slowed to a still frame.” Scribner, 2015, pp. 97-99.
and safety regulations, which, as Marx showed, were a form of resistance to capital. On the other hand, the application possibilities of the paint had an authoritarian side with the use of the paint in the production of luminescent vehicle licence plates. The surveillance application possibility of the paint was therefore another instantiation of the counterpolitics of the phosphorescent colour of Giese’s works. The paint’s potential applications could have been resistant or oppressive.

As I have argued in this chapter, in the solo exhibition of Giese at the Kunsthalle Düsseldorf in 1978, the five Sculptures with Luminescent Paint on view emitted an afterglow in the dark. This luminosity in the dark on the one hand caused the effect of the works’ seeming dematerialisation. The works were transformed into notations of angles and geometric shapes. On the other hand, the applications of the paint reasserted the materiality of the sculptures. Like the characteristic of reliability in Kluge and Negt’s political economy of labour power, the phosphorescent colour of Giese’s works had different results. In ‘Rainer Giese: Selected Works’, the solo exhibition of Giese at the Kunsthalle Düsseldorf in 1978, the green and orange phosphorescent colour of these five sculptures was immaterial and material at the same time. And like reliability, these different results had differing politics in 1978. On the one hand, in the effect of the dematerialisation of the sculptures caused by the colour of the works in the darkened room in the Kunsthalle, the colour of the works reproduced capital’s logic of abstraction, which was expanding into new territories, including the expropriation of labour capacities within the human subject in the Federal Republic of Germany in the late 1970s. On the other hand, the materiality of the works unfolded dialectically onto materialist politics. The paint therefore had the potential to be resistant to the same forces it reproduced in the seeming dematerialisation of the works. However, as the
surveillance application of the phosphorescent paint showed, that same materiality of the paint had its own counterpolitics.
Conclusion

This thesis focused on five sculptures by Imi Giese included in the solo exhibition of the artist at the Kunsthalle Düsseldorf in September 1978. Giese had painted these wood and pressboard constructions of angles and geometric shapes with green and orange phosphorescent paint, a type of luminescent paint that emitted light as an afterglow. In ‘Rainer Giese: Selected Works’, the sculptures were exhibited in a darkened room in the Kunsthalle, and in the dark, the sculptures glowed. Viewers saw these works differently. One critic wrote of the sculptures, “The angle constructions (since 1966) painted with luminescent paint then seem to lose their materiality.” Another critic recognised that Giese had made his works out of everyday materials. As these reviews of the exhibition showed, some visitors to the exhibition saw the luminous sculptures as immaterial and at the same time, other visitors saw them as material. The problem posed in this thesis was what this simultaneous dematerialisation and materiality of the sculptures meant in the solo exhibition of Giese at the Kunsthalle Düsseldorf in 1978.

To answer this question, I started by asking in chapter 1 what caused the effect of the dissolution of the sculptures that the critic Amine Haase described in her review. As I argued, the phosphorescent colour of the works in the dark caused what some viewers perceived as the dematerialisation of the works. In the darkened room in the Kunsthalle, the green and orange afterglow emitted by the paint was visible. Paradoxically, viewers would have been able to see this luminous colour because it was dark. However, as I argued, in this darkness, the luminous sculptures were analogous to the black-bodysuited, living human bodies that were “transposed into graphic notations” in front of the black screen in Marey’s cinematic analysis of running in the sense that

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240 AKD, Akte Giese, Imi.
they were transformed into immaterial geometrical notations.\textsuperscript{241} At the same time, as I showed, while viewers could see the colour of the works because it was dark, there was limited visibility in the darkened room in the Kunsthalle. This meant that viewers would have had little or no sense of where both they and the sculptures were in the darkened space in the Kunsthalle, or that the sculptures were three-dimensional, material objects.

In chapter 2, I argued that the same phosphorescent paint that in the dark caused the effect of the sculptures’ dematerialisation also had the opposite effect: it highlighted their materiality. At first, the catalogue accompanying the exhibition seemed to square with Haase’s description of the dematerialisation of the works in its design and its technical descriptions of Giese’s works.\textsuperscript{242} However, another review of the exhibition showed that the word “technical” could have a different valence to the a priori meaning of the works in the technical descriptions of them in the catalogue. This double meaning of “technical” showed that the sculptures themselves had two meanings in the solo exhibition of Giese at the Kunsthalle Düsseldorf in 1978. Misquoting the meaning that the curator had ascribed to Giese’s works in the exhibition catalogue, the critic wrote “technical means” when they should have written “pictorial means”.\textsuperscript{243} As I argued, this slip revealed that they saw Giese’s works as ambivalent, both art and non-art, having recognised that Giese had made his works of art out of everyday materials. One of these everyday materials was the Wiedolux phosphorescent paint. The phosphorescent colour of the sculptures therefore highlighted the materiality of the works, the same phosphorescent colour that had, as I argued in chapter 1, caused the effect of the immateriality of the sculptures. As I showed, this luminous colour of the works was

\begin{itemize}
\item \textsuperscript{241} Elcott, 2016, p. 83.
\item \textsuperscript{242} Düsseldorf, 1978.
\item \textsuperscript{243} AKD, Akte Giese, Imi.
\end{itemize}
interrelated with the meaning of the simultaneous immateriality and materiality of the works in the solo exhibition of Giese at the Kunsthalle Düsseldorf in 1978.

In chapter 3, I answered the question of what the simultaneous dematerialisation and materiality of the works meant in the Federal Republic of Germany in the late 1970s. To answer this question, I drew on Alexander Kluge and Oskar Negt’s political economy of labour power in *History and Obstinacy*. In *History and Obstinacy*, Kluge and Negt write of primitive accumulation as a permanent process in which labour capacities within the human subject were expropriated by capital. With this separation of labour capacities within labour power, labour became alienated. It became abstract. As Corwin has shown, this abstraction had an aesthetic. As she argues, in the time-motion studies of Frank and Lillian Gilbreth, which had been developed from the methods of Marey with the black screen at the Physiological Station, work and the body of the worker were transformed into lines of light on a dark ground. As I showed, the dematerialisation of Giese’s luminous sculptures in the dark in the Kunsthalle Düsseldorf in 1978 involved a similar process to the transposition of living human bodies into “graphic notations” in front of the black screen in Marey’s cinematic analysis of running as I argued in chapter 1, and to the abstraction of labour in the time-motion studies of the Gilbreths. The dematerialisation of Giese’s sculptures therefore reproduced one visualisation of the abstraction of labour in the history of management, reproducing capital’s logic of abstraction.

However, as Kluge and Negt argue, at the same time, primitive accumulation precipitated obstinacy. As I argued, the insistent materiality of Giese’s luminous sculptures was resistant, obstinate. One of the application possibilities of the Wiedolux

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244 Corwin, 2003, pp. 139-147.
245 Elcott, 2016, p. 27; Corwin, 2003, pp. 141-142.
246 Corwin, 2003, p. 144.
247 Elcott, 2016, p. 27.
phosphorescent paint that reasserted the materiality of the works was its health or safety application. And yet, as I argued, the Kunsthalle’s plan to restore some of the sculptures for the exhibition showed that the paint was at the same time a potential workplace health and safety hazard.\textsuperscript{248} As Marx showed in his history of English factory legislation in \textit{Capital}, in the capitalist mode of production, workplace health and safety regulation was the product of labour’s resistance to capital.\textsuperscript{249} Therefore, on the one hand, the phosphorescent colour of Giese’s sculptures caused the effect of their dematerialisation when they were shown in the dark at the Kunsthalle Düsseldorf in 1978, reproducing the logic of capital in which labour was an abstraction. On the other hand, the materiality of the works was itself dialectical: it was both a form of health or safety technology and a potential safety hazard, and this unfolded onto another dialectic: as a potential hazard, the use of the paints in the restoration of the sculptures for the 1978 exhibition was regulated by workplace health and safety regulations, which were produced by the struggle between labour and capital. The luminous colour of Giese’s sculptures was therefore an instantiation of the counterpolitics of primitive accumulation in Kluge and Negt’s political economy of labour power. Like the capacity of the feeling of responsibility, which could result in both Auschwitz and the exposure of the American incursion into Cambodia, the (counter)politics of the phosphorescent colour of Giese’s sculptures on view in Düsseldorf in 1978 was on the one hand oppressive, and on the other, emancipatory.\textsuperscript{250}

And yet, as I showed, the resistant materiality of the works had its own repressive counterpolitics. Another application of the paint was the production of

\textsuperscript{248} SD, Akte der Kunsthalle Düsseldorf, 0-1-4-40970.
\textsuperscript{250} Fore, 2014, p. 53.
luminescent car licence plates. Because of the glow-in-the-dark property of the paint, these number plates would have been visible at night. With these plates, vehicles would have been identifiable at night. Used to produce luminescent number plates, the paint was therefore surveillance technology. As I argued, surveillance was an issue in the Federal Republic in the late 1970s. The solo exhibition of Giese at the Kunsthalle Düsseldorf opened only one year after the German Autumn. Therefore, in ‘Rainer Giese: Selected Works’, the politics of the materiality of Giese’s sculptures, which was based on the everyday applications of the phosphorescent paint that the artist had painted the sculptures with, was not only resistant to capital, but also repressive in its surveillance application possibilities.

Both Kluge and Negt’s political economy of labour power and the five luminous sculptures in the solo exhibition of Giese at the Kunsthalle Düsseldorf intersected with political economy in the Federal Republic in the late 1970s. The conditions in which Kluge and Negt wrote the first edition of History and Obstinacy and in which Giese’s sculptures were exhibited at the Kunsthalle were the start of the conditions we find ourselves in today. As Wendy Brown has argued in her recent discussion of Foucault’s The Birth of Biopolitics, the series of lectures he gave at the Collège de France in 1979 and which I discussed in chapter 3, there are some differences between neoliberalism in the late 1970s and the conditions of the present. As it was to Foucault, neoliberalism is to Brown “an order of normative reason that, when it becomes ascendant, takes shape as a governing rationality extending a specific formulation of economic values, practices, and metrics to every dimension of human

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252 Fore, 2014.
253 Fore, 2014.
254 Brown, 2015, pp. 70-72.
life.” The changes she identifies in the interlude between the time of the solo exhibition of Giese and the present include among others: finance capital, “The crises precipitated by finance capital, not only episodic meltdowns and bankruptcies of firms, cities, and nations, but the permanent joblessness and recessionary conditions produced by the growing replacement of productive with financial activity across the economy”, and austerity in response to these crises. Brown does not only update Foucault, but also critiques problems in Foucault’s presentation of neoliberalism as a type of governmental rationality. In Undoing the Demos, Brown focused on the effects of neoliberalism on democracy, a subject with which Foucault did not engage. As she argues, neoliberalism is “de-democratising”, “neoliberal reason, ubiquitous today in statecraft and the workplace, in jurisprudence, education, culture, and a vast range of quotidian activity, is converting the distinctly political character, meaning, and operation of democracy’s constituent elements into economic ones.” Similarly, Foucault’s antagonism towards Marxism in the lectures meant that he “averted his glance from capital itself as a historical and social force”.

Foucault is clearly intrigued by the “freedom” that liberalism and neoliberalism promise. He knows we can be governed through such freedom, but refuses the Marxist point that what is being named as freedom elides and even discursively inverts crucial powers of domination. He rejects the early Marx’s thesis that bourgeois freedom, a “great progress,” is nevertheless compromised by alienation from and domination by humanly generated powers, powers we only

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256 Brown, 2015, pp. 70-71.
257 Brown, 2015, pp. 73-111.
258 Brown, 2015, p. 17.
259 Brown, 2015, p. 75.
navigate and do not control. He rejects the later Marx’s argument that freedom in the realm of exchange sits atop a basement of exploitation and domination in the realm of production.\(^{260}\)

What Brown’s critique of Foucault’s lectures shows are the oppressive effects of neoliberalism. And while there are differences between the neoliberalism of the late 1970s and that of the 2010s, the same “economisation” of all spheres of life that was developing in the Federal Republic in the late 1970s and with which *History and Obstinacy* intersected in Kluge and Negt’s formulation of primitive accumulation as capital’s permanent expropriation of capacities within the human subject, has continued into the present.\(^{261}\) Therefore, this thesis is more than an introduction to English language readers to the work of Imi Giese, who has been known in the history of postwar German art as the “other Imi” to the better-known Imi Knoebel, with whom he had studied first at the Werkkunsthochschule in Darmstadt and later in the studio Room 19 while students in Beuys’ class at the Kunstakademie Düsseldorf.\(^{262}\) It also gives a reading of Giese’s luminous sculptures that is relevant to readers living in the twenty-first century. In the solo exhibition of Giese at the Kunsthalle Düsseldorf in 1978, the five wood and pressboard sculptures the artist had painted with green and orange phosphorescent paint that were on view in a darkened room in the Kunsthalle instantiated the counterpolitics of obstinacy that Kluge and Negt were writing about at the same time, a luminous way out in dark times.\(^{263}\)

\(^{260}\) Brown, 2015, pp. 76-77.

\(^{261}\) Brown, 2015, p. 17; Fore, 2014.


\(^{263}\) Fore, 2014.
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SD: Düsseldorf, Stadtarchiv Düsseldorf


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