

ARTICLE

NODE "MATERIOLOGY AND VARIANTOLOGY: INVITATION TO DIALOGUE"

The materiology of junk and scrap

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Abstract

This essay explores the materiology of junk and scrap, focusing on their transformation through welding processes and conceptualizing trash as a time machine. Key elements include waste materials such as junk, wire, screws, locks, pipes, spare bike and machine parts and scrap, which are examined as valuable resources imbued with time through phenomena such as oxidation, rusting and corrosion. In my artistic and scientific work, through welding, pottery, poetry, digital and analogue filmmaking, theatrical productions, collages and writing, I analyse various creative practices as akin processes within materiology. Emphasizing hands-on engagement with materials, my research highlights the tactile aspects of moulding and transforming waste into new forms, in an alchemical process where mundane materials are transmuted into something of value. This interdisciplinary investigation sheds light on the profound connections between art, thought and the materiality of time and everyday detritus. This essay is informed by a year-long personal exploration during which I have engaged in welding and sculpture creation using scrap materials sourced from a neighbour's garden – a space previously inhabited by the late Michael Lachmund, a painter, sculptor, educator and philanthropist who was also a collector of scrap.

Keywords

alchemy; debris; junk; scrap; sublimation; time traces; transformation; waste

*La materiología de los desechos y la chatarra***Resumen**

Este ensayo explora la materiología de los desperdicios y la chatarra, centrándose en su transformación a través de los procesos de soldadura y conceptualizando la basura como una máquina del tiempo. Los elementos clave incluyen materiales de desecho como chatarra, alambre, tornillos, cerraduras, tuberías, piezas de repuesto para bicicletas y máquinas y desperdicios, que se examinan como valiosos recursos

imbuidos de tiempo a través de fenómenos como la oxidación y la corrosión. En mi trabajo artístico y científico, a través de la soldadura, la cerámica, la poesía, el cine digital y analógico, las producciones teatrales, los collages y la escritura, analizo varias prácticas creativas como procesos similares dentro de la materiología. Enfatizando el compromiso práctico con los materiales, mi investigación destaca los aspectos táctiles de moldear y transformar los residuos en nuevas formas, en un proceso alquímico en el que los materiales mundanos se transmutan en algo de valor. Esta investigación interdisciplinar arroja luz sobre las profundas conexiones entre el arte, el pensamiento y la materialidad del tiempo y el detrito diario. Este ensayo se basa en una exploración personal de un año de duración durante el cual he participado en la soldadura y creación de esculturas utilizando materiales de desecho procedentes del jardín de un vecino, un espacio habitado anteriormente por el difunto Michael Lachmund, pintor, escultor, educador y filántropo que también era un coleccionista de chatarra.

Palabras clave

alquimia; desechos; basura; desperdicios; sublimación; signos del tiempo; transformación; residuos

Introduction

In material culture, junk and scrap often occupy the margins as overlooked remnants of consumption and production processes. Yet, beneath their mundane veneer lies a rich tapestry of temporal narratives and creative potential. This essay embarks on an interdisciplinary journey to unravel the materiology of junk and scrap, delving into their transformation through welding processes. Central to my exploration are waste materials and scrap metal – junk, wire, screws, locks, pipes, spare bike and machine parts – recognized as reservoirs of latent value, bearing the imprints of time manifesting itself through phenomena such as oxidation, rusting and corrosion. Through a synthesis of artistic and scientific perspectives, I aim to elucidate the profound connections between the materiality of detritus, the passage of time and the transformative power of creative engagement.



Figure 1. At the garden of Michael Lachmund. Priort, Summer 2023

Source: photo by the artist

1. Personal exploration: recuperating scrap and transforming found objects

My creative inquiry of scrap is informed by a year-long personal exploration, during which I have engaged in welding and sculpture creation using scrap materials discovered serendipitously in a neighbour's garden – a space previously inhabited by an undiscovered artist, the late Michael Lachmund, a painter, sculptor, educator and philanthropist who was also a collector of scrap. During this artistic journey, I stumbled upon a treasure trove of objects. As a sculptor who delved into welding processes, Michael used his garden as a repository of discarded materials ripe for transformation. Inspired by his creative ethos and the alchemical potential of junk and scrap, I embarked on a journey of recuperation and reinvention, salvaging pieces of metal from his backyard to breathe new life into them. The act of grinding, sanding and polishing became a ritualistic endeavour – an intimate engagement with the materiality of time and decay. Amongst those old metal scrap objects discarded for various reasons, due to wear and tear, obsolescence or the end of their useful life, I found automobile parts; engines, transmissions, body panels, wheels, and exhaust systems, household appliances; parts of refrigerators, washing machines, stoves, microwaves, air conditioning units, tools and machinery; hammers, wrenches, drills, saws, lathes, milling machines, metal beams, pipes, rebar, and fixtures such as railings and doors, bicycles; frames, handlebars, wheels, garden tools; shovels, rakes. Objects that are usually collected by scrap metal recyclers, who process the metal for reuse in new products, reducing the need for virgin raw materials and minimizing environmental impact. That's how Michael Lachmund was perceived and what was going to happen to his scrap collection. It was going to end up in a rusty scrap metal depository. Exploring his fundus, I have recognized that each object bore the scars of its history, with traces of oxidation and rust attesting to its journey through time. Yet, within the patina of neglect, there was potential for renewal and regeneration. Through welding processes akin to those practised by Michael, I sought to transcend

the utilitarian origins of these discarded fragments, transforming them into vessels of time and artistic expression. This idea was tinged with a sense of urgency, as I learned of the impending liquidation of Michael's collection. Faced with the prospect of dispersal and dissolution, I felt compelled to seize the opportunity to salvage what I could, preserving fragments of his legacy while embarking on my own creative odyssey. In the act of reclaiming and repurposing these found objects, I found solace in the transformative power of artistic expression – a testament to the enduring legacy of Michael Lachmund and the boundless potential of junk and scrap to inspire new forms of creativity.



Figure 2. Michael Lachmund's House. Priort, Summer 2023

Source: photo by the artist



Figure 3. Collecting scrap from the garden of Michael Lachmund. Summer 2023

Source: photo by the artist

2. The essence of time in junk and scrap

In the realm of materiality, time leaves indelible marks on objects, transforming them from pristine artefacts into relics of temporality. Junk and scrap, repositories of discarded memories and forgotten histories bear witness to this inexorable passage of time. Through phenomena such as oxidation, rusting, corrosion, galvanization, mechanical wear and tarnishing, these materials acquire a patina, imbuing them with an essence that transcends their utilitarian function. By excavating the time traces inscribed within junk and scrap, we can unearth a narrative of decay and regeneration, where the passage of time becomes palpable through the material substrate.

3. Trash as a time machine: conceptualizing waste in materiology

In the discourse of materiology, trash emerges as a time machine – a conduit through which the flux of time is channelled and materialized. Rather than being seen as mere by-products of consumption, junk and scrap are reimagined as dynamic entities, perpetually oscillating between states of existence and oblivion. Drawing inspiration from philosophical inquiries into the nature of time, such as asymmetry, simultaneity and dilation, as well as our perception of it, the influence of memory and the possibility and consequences of traversing temporal boundaries, I interrogate the ontological status of trash, probing its capacity to encapsulate temporal narratives and existential dilemmas. Through a synthesis of art and philosophy, I endeavour to unravel the metaphysical underpinnings of waste, unveiling its hidden potential as a portal to deeper understandings of time and existence. Where does it take us? How does the attention towards discarded objects shift our perception of reality and time?

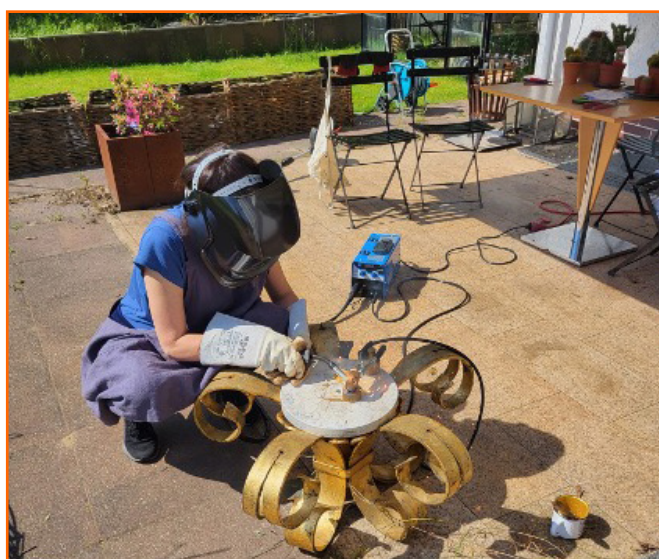


Figure 4. Welding scrap, Summer 2024

Source: photo by Andrzej Kusek



Figure 5. Unearthing, grinding, transforming. Autumn 2023

Source: photo by the artist



Figure 6. Unearthing, grinding, transforming. Autumn 2023

Source: photo by the artist

4. Creative practices as alchemical processes: sublimating waste. Chrisopoiesis

At the intersection of art and science lies the alchemical process of transmutation of the mundane into the extraordinary, or more precisely chrisopoiesis; the art of transforming a metal into gold. Through hands-on engagement with materials, artists and scientists alike harness the transformative power of creative expression, moulding junk and scrap into new forms of beauty and meaning. In my work, whether through welding, pottery, poetry, filmmaking or theatrical productions, these creative practices serve as crucibles of alchemical experimentation, where the raw materials of everyday detritus are transmuted into objects of aesthetic and philosophical significance. By embracing the ethos of alchemy, I illuminate the inherent potential of trash to undergo metamorphosis, shedding its former identity to emerge anew.

We can also draw parallels between welding, filmmaking and alchemy. Both welding and filmmaking involve a process of assembly and composition. In welding, individual pieces of metal are fused to create a unified structure, much like scenes and shots are combined in filmmaking to tell a cohesive story. Welding also requires careful planning and precision, akin to the meticulous attention to detail required in filmmaking, where every frame contributes to the overall narrative and visual impact. The manipulation and transformation of raw materials is another parallel. In welding, metal is shaped and moulded through heat and pressure, while in filmmaking, raw footage is edited and manipulated to convey specific emotions and messages.

Chrisopoiesis, traditionally associated with the transformation of base metals into gold, shares conceptual similarities with welding in its emphasis on transformation and transmutation. In both practices, there is a focus on harnessing the latent potential of materials and imbuing them with new meaning and value. Like alchemists searching for enlightenment and transformation, welders seek to unlock the hidden potential within the raw materials they work with. Furthermore, both welding and chrisopoiesis involve a degree of experimentation and improvisation. In welding, artists often embrace the unpredictability of the medium, allowing for spontaneous forms and compositions to emerge. Similarly, alchemists engage in a process of trial and error, seeking to discover the secrets of the universe through their experiments with materials and substances. Through chrisopoiesis, the mundane and overlooked are reimagined as striking and meaningful creations, proving that beauty and value can emerge from the humblest beginnings.

By drawing parallels between welding, filmmaking and alchemy, we can gain a deeper understanding of the creative processes involved in each practice, as well as the broader themes of transformation, experimentation and discovery that unite them.

5. Interdisciplinary investigations: bridging art, thought and materiality

In my interdisciplinary investigations, I traverse the boundaries between art, thought and materiality, forging connections that transcend disciplinary constraints. Through a synthesis of diverse methodologies – from empirical observation to speculative inquiry – I endeavour to illuminate the complex interplay between creativity, temporality and material culture. Drawing inspiration from the late Michael Lachmund, I pay homage to the transformative power of creative engagement, gathering people and engaging in dialogue. By embracing an interdisciplinary perspective, I seek to unravel the mysteries of junk and scrap, casting light on their latent potential as repositories of temporal wisdom and artistic inspiration.

Finding inspiration in the concept of bricolage – an approach to creation that emphasizes the use of diverse and often found materials—I embrace the ethos of Jean Dubuffet, who championed *art brut* (raw art), celebrating the creative potential of untrained artists and everyday materials. In Dubuffet's seminal work, the materiality of junk and scrap serves as a conduit for authentic expression, blurring the boundaries between high and low culture.

Furthermore, I am guided by the pioneering spirit of artists such as Jean Tinguely and Alexander Calder, who revolutionized the artistic landscape through their innovative use of industrial materials and kinetic sculptures. Tinguely's whimsical contraptions, composed of salvaged machine parts and discarded objects, epitomize the transformative power of bricolage, breathing new life into the detritus of modernity. Similarly, Calder's iconic mobiles, crafted from wire, sheet metal and other industrial remnants, evoke a sense of playful spontaneity, inviting viewers to contemplate the interconnectedness of form, movement and materiality. With the inclusion of references to bricolage and the works of Tinguely, Dubuffet and Calder, I strive to further contextualize interdisciplinary discourse on the materiology of junk and scrap within the realms of art history and aesthetic theory.

Numerous contemporary artists explore the use of scrap materials, old metals and welding in their artistic practice. Some of the most pertinent to my work are the following:

John Chamberlain, who was renowned for his sculptures made from crushed, twisted and welded automobile parts. He transformed discarded car bodies into dynamic and colourful abstract compositions, exploring the interplay between form, materiality and space.

David Smith, a pioneering figure in American modernist sculpture, who often worked with welded metal to create abstract and geometric forms. He was known for his use of industrial materials such as steel and iron, which he transformed into monumental sculptures that explored themes of industry, nature and the human condition.

Lee Bontecou, who is known for her innovative sculptures that combine welded metal with canvas, wire and found objects. Her works

often evoke organic forms and cosmic landscapes, blurring the boundaries between abstraction and representation.

Richard Serra, known for exploring the possibilities of welding and manipulating metal in his monumental sculptures. His works often play with scale, balance and gravity, inviting viewers to engage with the physicality of space and material.

Caledonia Curry (Swoon), a contemporary artist known for her intricate and ephemeral installations made from found materials such as wood, paper and metal. She often incorporates elements of street art and community engagement into her work, creating immersive environments that blur the lines between art and activism, similarly to Michael Lachmund who used to gather a community of villagers around him.

Tom Sachs, known for his bricolage-style sculptures and installations, which often incorporate found objects, consumer products and industrial materials. He frequently employs welding techniques to assemble his works, which range from large-scale installations to functional objects and *bric-à-brac*.

These artists, among others, demonstrate the diverse ways in which scrap materials, old metal and welding can be utilized as a means of artistic expression, pushing the boundaries of form, materiality and conceptual inquiry about time, decay and transience. Their creative experience in the field of material recuperation, transformation and wielding into new artistic forms is both epistemologically and methodologically elevated, offering profound insights into the nature of creativity and craftsmanship. This process involves an intricate interplay of inquiry and creation, where the artist engages deeply with the material's history and potential. By examining and reinterpreting discarded material, artists challenge conventional notions of waste and value, fostering a heightened awareness of resourcefulness and innovation. Methodologically, this practice demands a blend of technical skill and imaginative vision, as the transformation from scrap to art involves meticulous planning, precise execution and an openness to serendipitous discoveries. Epistemologically, it expands our understanding of art as a dynamic dialogue between creator, material and environment, underscoring the capacity of creative processes to transcend traditional boundaries and generate new forms of meaning and beauty from the overlooked and discarded.

Conclusions

As I contact and manipulate the materiality of junk and scrap metal, I find myself intricately reconnected with the spirit of Michael Lachmund. Although I never had the opportunity to meet him personally, his presence resonates profoundly through the very materials he once curated. With each weld and every stroke of the grinder, it feels as though I am communing with his essence – a spectral thread that binds past and present in a timeless dance of creation and renewal. Despite his passing in 2018 at the age of 77, Michael's legacy lives on, perpet-

uated through the tangible manifestations of his passion for art and the enduring resonance of his creative spirit. Through the materiality of junk and scrap from his collection, I find solace in the continuity of his presence – a testament to the transformative power of artistic engagement and the enduring legacy of those who came before us. The materiology of junk and scrap unveils a rich tapestry of temporal narratives and creative potential, transcending the boundaries between art, science and philosophy. By embracing the transformative power of creative engagement, we harness the alchemical potential of waste, transmuting the mundane into the extraordinary. In the hands of artists and scientists, junk and scrap become catalysts for exploration and discovery, serving as portals to deeper understandings of time, existence and the human condition. As we continue our interdisciplinary journey, we are reminded of the words of Michael, whose spirit of curiosity and innovation continues to inspire: “In the detritus of the everyday, there lies a universe waiting to be discovered – a universe of beauty, meaning and infinite possibility.”

This creative inquiry is, in a way, a continuation of my affirmation and exploration of transgression and subversion in arts and thought.

Hephaestus, the Greek god of blacksmiths, forging, metalworking and craftsmanship comes to mind. In the crucible of the welder's artistry, glowing, hot iron surrenders to the alchemy of transformation, melding and morphing into new forms with each dance of the flame, as captured in the little-known Swiss-German poem D'Alchimist (The Alchemist):

*Dr'funkeIndi Stäg vo däm Turm, wo yne schtolz,
wi Diamant, i's Himmelszilt na'zrucht.
Im Laberatorium, tüüf im Härz vom Turm,
do was düüster isch, omezaubreti Nachtschta.
Dr'chisligi Uflösig vom Sölber im Hitz,
verwandlet sich z'goldig im blaue Füür.
D'Alchimist, verbunde mit dr'gröschte Syg,
versuecht de Natur no'ze überzwiirra.*

*Welles Geheimnis in der'r Grueb vrdrecket?
Ist's d'kunstvoll Ignoriere vo dr'Dunkelheit?
Oder e wundersam Symphonie, s'tanzendis Licht,
verbringe'vom Dämmer e neui Sicht?
G'fange zwüsche d'Welt vom Härz und Wille,
suecht de Alchimist stillschweigend sini Erfüllige.*

*Mit kundigem Auge, er blinzlet zum Mond,
u'trachtet d'Sterne, wo sini Zeita un'zählt.
Wasserdampf steigt, d'Elixier beglänzt,
dr'Nachtwind flüstert ihm geheimnisvoll u'stil.
U'rtrotz allet Metalle, ihri glänzende Macht,
bleibt d'Seel vom Alchimist no'rungschlaag.*

*I'mächtig isch sini Kraft, e ewige Flamm,
d'Suchi nach Wisse, sini nie endende Bahn.
Zwüsche Himmel und Erde, u'triibem Gschicht,*

*dr'Alchimist wot e neui Wahrheit errichte.
Dr'Flüchtige Nebel, wo über'm Horizont schwebt,
erhell't dr'Weg vom Wunder, was d'Alchemie lebt.*

(The sparkling pillar of that tower, standing proud,
like a diamond, reaching for the celestial goal.
In the laboratory, deep in the heart of the tower,
where it's dark, enchanted by nocturnal whispers.
The murky solution of silver in the heat,
transforms to gold in the blue fire.
The alchemist, bound to the greatest quest,
tries to outwit nature once more.

What secret lies hidden in the abyss?
Is it the artful ignoring of darkness?
Or a wondrous symphony,
the dancing light, bringing a new perspective from twilight?
Caught between the world of heart and will,
the alchemist quietly seeks his fulfilment.
With knowledgeable eyes,
he squints at the moon, contemplates the stars,
whose time is untold.
Steam rises, the elixir gleams,
the night wind whispers to him mysteriously and silently.
Despite all metals, their shining power,
the soul of the alchemist remains untouched.

His power is mighty, an eternal flame,
the pursuit of knowledge, his never-ending path.
Between heaven and earth, amidst stories,
the alchemist seeks to establish a new truth.
The fleeting mist, hovering above the horizon,
illuminates the path of wonder where alchemy lives.)

CV

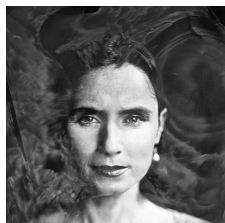


Photo by Pawel Sokolowski

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Aneta Panek is a Berlin-based researcher, filmmaker and performance artist working in the fields of theatre, opera and film. Recurrent themes in her work include alchemy, transmutation, subversion and rebellion as means of self-discovery. Based on other knowledge and performative research, she explores the necessity of visualization and associative speculation in formulating and deconstructing theories and questioning reality. She completed studies in art history and archaeology at the Sorbonne in Paris with MA and DEA diplomas, and earned her doctoral degree (Dr. Phil.) at the University of Arts Berlin, with a thesis on *Alchemy of Punk*. While her practice culminates in experimental film, she also stages performances and operas and writes analytical texts, poetry and compositions.