

STATE OF FLUX

AESTHETICS OF FLUID MATERIALS

EDITED BY MARCEL FINKE & FRIEDRICH WELTZIEN

REIMER

This volume has been published with kind support from the Hannover University of Applied Sciences and Arts (Faculty III) as well as the University of Tübingen (Zukunftskonzept, ZUK 63).



Bibliographic information published by the Deutsche Nationalbibliothek
The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie;
detailed bibliographic data are available on the Internet at <http://dnb.d-nb.de>.

Cover illustration and design: Vanessa Karré, Berlin
Layout: Alexander Burgold, Berlin
Proofreading: Lucinda Rennison, Berlin

The editors acknowledge that Tim Ingold's essay "Bringing Things to Life: Material Flux and Creative Entanglements" (Chapter 1) is an abridged and slightly altered version of his essay "Being alive to a world without objects" published in *The Handbook of Contemporary Animism* (ed. Graham Harvey, New York 2014, p. 213–225), © 2014 Routledge. Reproduced with permission of Taylor & Francis Books UK.

Print: Hubert & Co. GmbH & Co. KG, Göttingen
Paper: LuxoArt Samt
Font: Avenir Next, FS Albert Pro

© 2017 by Dietrich Reimer Verlag GmbH, Berlin
www.reimer-verlag.de

All rights reserved
Printed in Germany
Printed on resistant to ageing paper

ISBN 978-3-496-01577-2

CONTENT

Acknowledgments	7
State of Flux: Introduction to Fluid Materials	9
Marcel Finke & Friedrich Weltzien	
Bringing Things to Life: Material Flux and Creative Entanglements	21
Tim Ingold	
Fluid Aesthetics – Aesthetics of the Fluid	39
Friedrich Weltzien	
Dark Liquids: Victor Hugo and Phosphorescent Seawater	59
Andrea Haarer	
Toward a ‘Wetter’ Photographic Ethos: Liquid Abstract Photographs and the Hubris of Technology	75
Luke Smythe	
Diffusing Sight: Matt Saunders’ Epistemology of the Fluid Image	89
Kassandra Nakas	
In the Event of Non-Happening: On the Activity and Passivity of Materials	105
Olga Moskatova	
From Soap Suds to Construction: Frei Otto’s Design Practice as a Chain of References	121
Ralf Liptau	
Thinking Through Foam: Art, Agency, Aphrology	137
Marcel Finke	
Water – Liquidity as Digital Form	157
Daniel Becker	
Plates	175
Figures	193

ACKNOWLEDGMENTS

This book on fluid materials has been a long time in preparation. Indeed, the project almost drowned along the way for a number of reasons. The delightful circumstance that it has eventually emerged from troubled waters is due to the assistance and kind support of many people. To begin with, we would like to express our deep gratitude to the contributors to this volume. We are thankful not only for their patience and willingness to delve into a project that – rather like its subject matter – was in a productive state of flux, but also for their excellent and well-conceived essays, which successfully intertwine detailed attention to actual materials and theoretical thinking. Given the fact that most of our contributors are native German speakers, we owe a special debt of thanks to Lucinda Rennison, who was responsible for proofreading. We very much appreciate her considerate and careful approach to the essays. Our profound thanks also go to the illustrator Vanessa Karré, who has transformed our somewhat squishy ideas into a very appealing cover design. We are grateful to Beate Behrens, Marie-Christin Selig, and Anna Felmy of Reimer Verlag, who welcomed our project without hesitation and gave it the best possible support. Since one of our essays, namely Tim Ingold's "Bringing Things to Life: Material Flux and Creative Entanglements", is a slightly abridged and altered reprint of a text published elsewhere, we would like to thank the author as well as Taylor & Francis Books UK for kindly granting permission. Last but not least, we are indebted to both the University of Tübingen and Hannover University of Applied Sciences and Arts for their financial support, without which *State of Flux: Aesthetics of Fluid Materials* would have melted into nothing. Due to the help and encouragement of these and many other people this volume has now finally materialized.

STATE OF FLUX: INTRODUCTION TO FLUID MATERIALS

MARCEL FINKE & FRIEDRICH WELTZIEN

Oil, resins, lacquer, latex, lye, ink, glue, molten metals such as aluminium, bronze or lead, asphalt and clay, turpentine, water colours and liquid acrylics, foam, steam, chemicals such as acids, formaldehyde or photographic developers, eggs, honey and running wax, emulsions and solutions of all sorts – fluid materials and substances abound in artistic practices. Fluids are distinctive; their characteristics and behavior necessitate particular ways of handling and precautions. They can spill, leak, mix and dissipate; they evaporate, seep through the minutest openings, gush out and splash about; they may cause erosion or wash away and liquefy other stuff; they stick to fingers, stain the studio or gallery space, tinge the clothes, fill the air with peculiar smells, or infiltrate into the artist's body. In the course of artistic production, most of these mutable and fugitive materials eventually come to a standstill. They dry and reify into works of art such as, for instance, paintings, sculptures or photographs; nevertheless, leaving traces of their previous fluid lives. In other cases such as performative objects, installations, or performances they may even remain in flux, being themselves at work in the ongoing creation of artistic forms and expressions. Instead of providing a stable substratum for art objects, fluid materials are more or less inclined to yield, move, and change. They have to be contained in order to stay in place and keep a preconceived shape; yet they are always ready to overflow or break through their external boundaries. Due to their idiosyncratic properties and dynamics, fluids are fascinating matter – aesthetically as well as epistemologically.

In this volume, we are focussing on actual fluids as used in artistic practices from the mid-nineteenth century to the present. The materials discussed and explored in the following chapters range from water, soap solutions and bubbles to molten chocolate, photographic chemicals, gouache, liquid foam, Indian ink, acids, and fog. Drawing on examples from film, painting, installation and digital art, architecture, and photography, the essays delve into fluid matter and examine its diverse aesthetic as well as epistemic functions and potentials. They reflect upon *and* with matter in motion, paying close attention to its characteristic material behavior and its productive contribution to creative processes. Moreover, the studies deal with the generation and fluctuation of meanings engendered by fluids.

The decision to put actual fluid materials centre stage arose from a number of reasons. One of them is the simple fact that liquid and mutable materials have been

used increasingly in art since the early twentieth century. This shift from “the solid to the ephemeral” (Wagner 2002: 169; our translation) is indicated by an “inclination to flexible, soft and ... volatile materials” (Rübel 2012: 10; our translation) that are processual and amorphous rather than stable and shape-retentive. The increasing prevalence of materials that are in a state of flux not only confronts the discipline of art history with a “turn towards formlessness” (ibid.: 7; our translation) but also with works of art that defy the demands of classical aesthetics. Instead of subscribing to categories such as, for instance, durability, concreteness, or intentional artistic design,¹ fluids seem to advocate transitoriness, metamorphosis, contingency, and autopoiesis. Thus, an investigation into the particular aesthetics of fluid materials might reveal that we need more fluid aesthetics in general. As Dietmar Rübel (2012: 18) has argued, however, the effects of this ongoing artistic engagement with matter in motion are not at all restricted to the realm of aesthetics; it has epistemological repercussions, too. On the one hand, it poses methodological problems for art history insofar as fluid materials as well as the practices and artworks in which they are involved require alternative approaches and new concepts: the traditional theoretical frameworks fail to come to terms with them. On the other hand, artistic practices and works of art that take fluids seriously may offer new and different insights into the nature of our material world: they may generate knowledge about its continual becoming, entangledness, and processuality. The following essays – diverse as their subjects and individual approaches are – contribute to the development of a kind of ‘fluid methodology’; moreover, they consider various aesthetic as well as epistemic issues, ranging from analogies between artistic creation and the creativity of natural processes, the agency and generative capacities of fluid material events to the production and transmission of information, and the performance of matter within ecological and technological milieus.

In addition to the sheer increase of fluid materials in art and the consequent challenges to art historical thinking, further reasons exist to take a closer look at actual fluids. First of all, there is the tendency within the broader context of material culture studies to theorize about *materiality* rather than to scrutinize real *materials*. As Tim Ingold (2011: 20) has rightly observed, the majority of studies is not primarily concerned “with the tangible stuff” that our world is actually made of but with abstract concepts of how the material world is culturally appropriated and shaped by us. Moreover, this focus on *materiality* entails an understanding of materials as the “hard physicality of the world”, as if they “had crystallized out as a solid and homogeneous precipitate” (Ingold, chapter 1: 28). Thus, paying close attention to actual fluids may serve to compensate for the neglect of real materials as well as their problematic solidification. This seems to be even more necessary since relevant studies mostly concentrate on what could be termed the

1 In a traditional sense of the word, fluids may not even count as proper “materials” in art. For ages, aesthetic discourses have defined materials as passive stuff that needs to be processed and shaped by the artist with the aim of overcoming and transcending its earthly nature; they were considered “raw materials” that have to be turned into preconceived forms by artistic treatment and intervention (cf. Wagner 2001: 867, 870). Therefore, fluids necessitate a broadening of what the term “material” designates in art and of what materials are able to do within artistic practices.

hardware of material culture; they usually speak about concrete tools, artefacts, objects, apparatuses, or technologies rather than materials as such.² When it actually comes to real stuff, however, yet another problem occurs, namely the theoretical reification of materials. Instead of taking their mutability and open-endedness into account, materials are often addressed as if they were fixed and distinct things (cf. Espahangizi & Orland 2014: 16–18; Hahn & Soentgen 2011). By focussing on fluids, the essays of this volume deal with a particular (subject) matter that may help to develop adequate alternatives to the discursive objectification and hardening of materials.

While the general interest in materiality and material culture goes back at least until the 1970s, a growing involvement with the more specific issue of fluidity has only become apparent in recent years.³ A cornerstone within these discussions is Zygmunt Bauman's seminal book *Liquid Modernity* (2000), in which he differentiates between early "rigid and solid" modernity and a "novel phase in the history of modernity" (Bauman 2000: 2), beginning with the last quarter of the twentieth century, which he considers fluid, fugitive, and diffuse. Despite taking his starting point from the material behavior of actual fluids, he quickly proceeds to using fluidity as a "leading metaphor for the present stage of the modern era" (ibid.: 2). This leaping from the characteristic flowing properties of fluids to a "metaphorology of the fluid" (cf. Assmann 1991) is representative of many studies concerned with the matter of liquidity. Reflections on fluid materials, thus, are very often mere vehicles to enter the "metaphorical field of liquefaction" (Witte 2010: 165; our translation) or to apply the imagery of flux and flow to other objects of investigation. Fluidity, then, becomes a figure of thought rather than an actual material phenomenon or event. Similarly, art historical studies primarily prefer to focus on visual representations of fluids rather than paying attention to real materials in flux; they tend to overlook actual fluids in favor of images or tropes of fluidity (cf., for example, Clark 2010; Dogramaci 2016; Nakas 2015). From this perspective, aesthetics of the fluid would be somewhat limited to issues of how the distinctive qualities of liquid or gaseous materials are transformed into depictions, and their liquefying effects on traditional modes of representation. The following essays, however, dwell upon real liquids and fluid processes as attentively as possible, thereby aiming for a better understanding of how they perform within artistic contexts and what they contribute to them. Aesthetics of the fluid, thus, are restricted neither to metaphors of liquidity nor to images of

2 This theoretical commitment to the solid and hardware of material culture could be labelled an "epistemology of the concrete", which is also the title of a book written by the historian of science Hans-Jörg Rheinberger (2010). Like many others, he focuses mainly on the 'dry and hard physicality' of enclosed objects and technical devices (cf. Finke, chapter 8: 138–139).

3 A number of meetings indicate the increasing interest in this subject; see, for example, *Liquefactions* (Berlin, 2012), *Liquidity* (London, 2013), *Flows (Un)bound* (Vienna, 2013), *Liquid Intelligence and the Aesthetics of Fluidity* (Montreal, 2013). The conference *Aquatic Metaphors in Art History* (Munich, 2017) is a reminder that key terms of the discipline such as "influence" and "source", or the idea of the history of art as a continuous stream of art movements derive from fluid imagery. For an account of fluids and flows that focuses on the intersections of art and science, cf. Kirschner (2017).

flowing materials; instead, they acknowledge and reveal the creative workings of actual fluids, too.

It is interesting that in contemporary new materialist debates the metaphorology of the fluid is also a recurring feature. In the endeavor to turn away from static notions of matter, the mobile imagery of liquidity and flux seems to be a compelling and almost natural choice.⁴ The recourse to ‘fluid rhetoric’ is, first of all, an attempt to overcome fixed concepts and to find a language suitable for processes such as, for instance, becoming, change, interactions, and metamorphosis. “Thinking through flows ... remains a difficult challenge”, Rosi Braidotti (2002: 2) reminds us, because “theoretical reason is concept-bound and fastened upon essential notions [which] makes it difficult to find adequate representations for processes, fluid in-between flows of data, experience and information.” Taking actual fluids as starting points for our theoretical reflection, thus, may stimulate new ways of speaking and contribute to a more flexible conceptualization of matter that avoids solidification or fixation.

Having said this, the “new materialists’ emphasis on flows of matter” and their attempts to “grasp the way matter flows and circulates” (Coole 2013: 467, 464) is worth considering for an additional reason, namely the shift from material resistance to material productivity. For quite some time, debates on materiality gave preference to the idea of recalcitrance, i.e. they focussed mainly on the pertinacity or intractability of materials. From this point of view, materiality is a kind of obstructing or negative force that comes to the fore only occasionally when something refuses to work properly: it thwarts human intentions, interferes with our projects, and spoils our actions; hence, it is through failures, breakdowns, and renitency that the “hard physicality of the world” makes itself felt. In this scenario, however, matter not only remains a ‘quasi-solid’ resource upon which humans act but also appears to be passive and inert stuff without any inherent efficacy. From the start, this rigid notion of materials is at odds with fluids. They do not readily lend themselves to hylomorphic models of passive material resistance; instead, they encourage a more positive, productive, and active understanding of matter.⁵ Therefore, fluids seem to be particularly interesting with regard to contemporary new materialist efforts to disclose the agentic capacities and formative powers intrinsic to matter (cf., for instance, Bennett 2010; Coole & Frost 2010; DeLanda 2016; Dolphijn & van der Tuin

4 In “The ‘Mechanics’ of Fluids”, first published in 1974, Luce Irigaray already addresses the problem that symbolization (and theoretical reasoning in particular) “grants precedence to solids” (Irigaray 1985: 110) and language maintains “a complicity of long standing between rationality and a mechanics of solids” (ibid.:107). From her feminist standpoint, she argues that a turn toward fluids and fluidity as a metaphor and philosophical concept may expose the structuring and reifying effects of language and what is excluded from the “framework of the ruling symbolics” (ibid.: 106). Cf. Elizabeth Stephens (2014), who discusses Irigaray’s involvement with fluidity in regard to current new materialist positions.

5 In discussions about materiality, the fact that fluids run counter to the idea of matter as passive and inert stuff, of course, could not be overlooked easily. A common reaction to this kind of recalcitrant behavior and resistance of fluid materials is to emphasize their ‘negative’ effects, namely liquefaction, dissolution, instability, entropy, loss of form and reliable boundaries, and so on. Thus, their ‘deviation’ from traditional concepts of matter has mostly been regarded as destructive rather than productive.

2012; Knappett & Malafouris 2008). From this point of view, (fluid) materials are able to exert some sort of creative dynamic or generative efficaciousness rather than merely responding and resisting to external forces such as human intentions and actions. Thinking about the performance of real fluids in artistic practices and works of art, therefore, may provide a testing ground for theoretical assumptions about the agency and productivity of materials in general.

From survey to case study: The essays of this book

In the current debate about the active and generative nature of matter, Tim Ingold is one of the most prominent advocates of fluidity and material flux. In opposition to the notion that we occupy a *material world* furnished with enclosed and fixed objects, his thinking is centered on the idea that we are immersed within a *world of materials* in which the ceaseless streams and counter-currents of materials “mix and meld with one another in the generation of things” (Ingold 2010: 92). Untiringly, he reminds us that we do not live “on the ‘other side’ of materiality, but swim in an ocean of materials”, thus, being engulfed by a constant “flux in which materials of the most diverse kinds, through processes of admixture and distillation, of coagulation and dispersal, and of evaporation and precipitation, undergo continual generation and transformation” (Ingold 2011: 24). According to him, it is from these ongoing “generative fluxes” that forms and things emerge or arise; and since the productivity of these “currents of materials” never really stops, forms and things are sustained only temporarily. To address this fleeting and unfinished state of things and forms, Ingold develops his *concept of leaking*, thereby resorting again to the characteristics of fluids: “it is in the opposite of capture and containment, namely discharge and leakage, that we discover the life of things” (Ingold, chapter 1: 29). Ingold’s essay “Bringing Things to Life: Material Flux and Creative Entanglements”, which serves as the opener for our publication, summarizes many key aspects of his thinking. Although his text does not provide a compulsory theoretical template for the other contributions, it nevertheless sets the tone perfectly for the present volume by paying close attention to the intricacies and efficacies of fluids and material flows.

In the second essay, “Fluid Aesthetics – Aesthetics of the Fluid”, Friedrich Weltzien also campaigns for the productivity and generativity of material fluxes. In addition to Tim Ingold’s more theoretical approach, he explores a variety of artworks from the twentieth and twenty-first centuries that make different use of fluids as diverse as melting chocolate, soap bubbles, steam, fog, water, and acids. At the outset, Weltzien addresses the recent debates on fluidity and problematizes their tendency to put forth a “narrative of loss” by linking fluidity with rather negative terms such as, for example, liquefaction, decomposition, erosion, disintegration, and formlessness. In contrast, he proposes focusing on the autopoietic aspects of fluid processes, i.e. the self-organizing and immanent material movements that bring about variable shapes and structures. It is with regard to the ongoing creation and becoming of forms that Weltzien highlights the sensitivity

and susceptibility of fluids to environmental conditions (for instance, temperature, air currents, or atmospheric pressure). Furthermore, by discussing examples from the last hundred years, he draws into question the opposition between ‘solid’ modernist art and ‘liquid’ post-modern art. Weltzien emphasizes that there are not only “continuities within the use of fluid materials in visual arts” since the turn of the nineteenth century. He also points out that the “aesthetics of the fluid can be traced back throughout European modernity” and that “fluid aesthetics” were already on their way around 1900, as exemplified by the works of Stéphane Leduc, Ernst Haeckel, and Henri Bergson.

The fact that artists creatively engaged with fluid materials long before the so-called “liquid modernity” is again demonstrated by Andrea Haarer’s essay “Dark Liquids: Victor Hugo and Phosphorescent Seawater”. In her close reading of a small picture of two amorphous ink-stains, which the French writer and artist produced in the 1870s, she carefully reconstructs the artistic process from which these seemingly accidental blots evolved. Haarer describes Hugo’s involvement with and attentiveness to the particular material qualities and behavior of his ink, experimenting with its fluidity, the varied distribution of pigments, and the manifold intensities of opacity or transparency. Moreover, she argues that Hugo’s *Taches* should not be mistaken for idle daubing or an isolated case of materials testing; rather, this specimen of material engagement relates to his general interest in natural processes and the “ephemeral formations and continuous transformation of moving seawater” in particular. In order to contextualize Hugo’s devotion to “dark, particle-filled and shimmering fluids” as well as marine phosphorescence, Haarer then discusses the ink-stains in the light of his own writings and contemporary literature on oceans and marine life. Thus, she is able to show that Hugo’s *Taches* is an artistic experiment examining the vivid aesthetics of (animated) liquids as well as an investigation into the fluid creativity of nature itself.

The volatile complexities of nature are also addressed in Luke Smythe’s essay on “Liquid Abstract Photography and the Hubris of Technology”. By delving into different artistic usages of the photographic medium, both analogue and digital, he explores the manual handling of fluids as well as the active role various liquid materials play in the respective photographic processes. Similar to Hugo, the artists discussed did not employ fluids in the production of images without due consideration but deliberately experimented with them, manipulating and exploiting their peculiar behavior and dynamics. The intellectual backdrop to Smythe’s case studies is Jeff Wall’s “Photography and Liquid Intelligence” (1989), in which the photographic medium as such is linked to the controlling power of technology and the modern attempt to master and oppress nature. In opposition to this ‘dry’ notion of photography, Smythe argues that it is possible to develop “a ‘wetter’, less domineering ethos” by acknowledging the recurrent artistic involvements with photography’s “liquid intelligence”. As he points out, the artists’ playful interactions with chemicals, emulsions, developing solutions, and photographic fixers during the generation of images can be considered a wilful questioning of the bounds and dictates of technological constraint. They allow greater scope to fluid materials within the process of photographic image-making rather than domesticating their agency and submitting them to the requirements of the apparatus. Instead of

broadening the alleged divide between nature and technology, Smythe contends, these artistic engagements with liquids display the efficacy of natural processes within technological milieus.

A very different but equally fascinating involvement with photographic (as well as filmic) images is the subject of the following essay, “Diffusing Sight: Matt Saunders’ Epistemology of the Fluid Image”. In her case study, Kassandra Nakas deals with the multi-faceted creative practice of contemporary artist Matt Saunders, who manually remakes found footage by transferring and transforming its pre-existing imagery into “heavily ‘liquefied’” drawings that then serve as ‘negatives’ for further photographic processing. Saunders draws with ink on non-absorbent polyester film, as Nakas observes, thereby exploring and emphasizing the fluid qualities of his materials and their morphogenetic potentials. In the production of his still as well as moving pictures, the flow of the ink plays a key part in the remake of the appropriated imagery; the liquid forms amorphous poolings, streaks, and highly unstable structures that are subsequently fixed into figurative photographic images, which in turn are infiltrated with a tendency to fluent abstraction. Due to the peculiar visual effects of Saunders’ liquefying techniques, the representational images are charged with new and fluctuating meanings. Accordingly, Nakas argues that the particular use and manipulation of fluid materials in this case not only have aesthetic effects but also draw into question the “epistemological status of the image”, i.e. challenging the fixity and evidence of photography as well as the “long-established opposition of matter and form”.

The image-producing and transforming entanglements of found footage and fluids are also considered in Olga Moskatova’s “In the Event of Non-Happening: On the Activity and Passivity of Materials”. Taking Jürgen Reble’s film *ZILLERTAL* as its point of departure, the essay critically reassesses theoretical issues of material agency. Moskatova discusses the artistic procedures of Reble, who deliberately exposes his filmic material to rain, humidity, and other atmospheric conditions such as solar radiation, temperature, and wind in order to achieve accidental alterations of the pre-existing imagery. The artist welcomes the effects of natural processes, utilizing the unpredictable consequences of change and decomposition that come along with them. Moskatova, however, does not resort to explanations that simply regard the resulting ‘liquefied’ images as caused by the agency of fluid materials. Rather, she points out that in the case of Reble’s films the “production takes place in interrelated ecological, technical and human milieus”. Moreover, she challenges the one-sided emphasis on materials “as active collaborators and co-producers” in current debates, asking how ideas of material activity actually cope with aspects of passivity. Albeit Moskatova acknowledges the need for a notion of agency that also includes materials, she criticizes the adherence to an “activity-passivity hierarchy”, in which passivity “functions more or less as an underexposed negative foil”. In her analysis of several approaches, she searches for alternative concepts that help to overcome the unquestioned priority of activity and comprise the “non-happening in happening”. To arrive at a fuller understanding of productive processes (both in art and in general), Moskatova asserts, a shift from entities (for instance, the fluid as ‘agent’) to material events is necessary, taking into account “interruptions,

delays, suspensions or obstructions in processes and subsequent operations”, instead of fetishizing activity as such.

Focussing on architectural design and modelling rather than the artistic production of photographic or filmic images, the following essay also investigates the role of fluid materials within complex processes. In “From Soap Suds to Construction”, Ralf Liptau scrutinizes the experimental practice of Frei Otto, who from the late 1950s onwards used soap films to find and develop novel forms for buildings such as, for example, the World Exhibition pavilion in Montreal (1967). Frei Otto’s research into the self-organising potential of liquid suds, i.e. their capacity to materialize ultra-light and efficient material structures ‘by themselves’, however, is but one aspect in a multi-tiered process that leads from the liquid and ephemeral (i.e. the delicate shapes of the soap solution) to the solid and durable (i.e. the realized architecture), as Liptau accentuates. Accordingly, the essay aims to reconstruct the several steps of translation and transposition (i.e. photographs, drawings, models, calculations, etc.) that were necessary to advance from the fleeting “form-finding model” to the final building. Liptau considers this process as a transfer of information or “chain of reference” (referring to Bruno Latour) that at a cursory glance might suggest a constant move away from the behavior of the fluid material, preserving merely its reified form. In contrast to this idea of visual depletion, he argues that after all, the generative qualities of the suds are still existent on a fundamental level inasmuch as they provided “a structural model of function” for Otto’s buildings, which operate “in a way that is analogous to soap film.”

Soap suds are also at the centre of attention in the following essay, albeit in a somewhat different state of matter and field of application, namely in the shape of liquid foams as used in artistic practices since the mid-twentieth century. In “Thinking Through Foam: Art, Agency, Aphrology”, Marcel Finke takes a closer look at the employment of this frothing substance within performative sculptures and installations, asking how this mundane and evanescent material may actually help us to reflect upon issues of agency. He argues that from the outset liquid foam “contradicts any idea of matter as ready-made [and inert] stuff”, since it comes into being by virtue of a continuous, volatile, and open-ended process of materialization. This fluent passage of material becoming and withering, i.e. the generative and vibrant process of foaming, Finke dubs “aphrogenesis”. Proceeding from this definition, he considers his artistic examples as aphrogenic assemblages or real-time systems that not only stage the productivity of actual fluids at work but also provide a vivid opportunity to pose questions concerning the emergence and distribution of agency within complex material constellations. Finke proposes calling on liquid foam as a “theoretical object” in order to gain a better understanding of how material agency evolves immanently from the joining and performing together of the various constituents of assemblages. With regard to the bubbling artworks discussed, he shows that agency arises performatively from an aphrogenic process, which is sympoietic and takes place on various levels of time and scale, rather than being a pre-existing property of the suds themselves.

In the final essay, “Water – Liquidity as Digital Form”, Daniel Becker is concerned with the use of water as a flowing liquid in media installations. His starting point is the

observation that the role of water in electronic or digital art is by no means limited to a representational or metaphoric level; instead, it is employed as an actual material, too. By discussing a number of exemplary artworks, Becker brings to light the alliance between the materiality of the water and the immateriality of the digital, which according to him maintain a dialectical relationship rather than function as opposites. Moreover, he points out that no simple equation of the two is possible either, as common phrases such as ‘digital flows’ or ‘ephemeral streams of digital information’ might suggest. Their relation is much more intricate, as is demonstrated by installations as diverse as Christa Sommerer’s and Laurent Mignonneau’s *A-Volve* (1993), Julius Popp’s *bit.fall* (2002), or *Rain Room* (2012) by rAndom International. In these works, water constantly fluctuates between the continuous and the discrete, between randomness and computability, freedom and control. Thus, Becker comes to the conclusion that “the medial idiosyncrasies of the digital are echoed by the flowing processuality of the liquid”, which in turn introduces an – aesthetically and epistemologically efficacious – element of uncertainty and contingency into the installations as well as the digital realm in general.

As should be clear by now, the essays of the present volume delve into a broad range of different liquids, practices, and material processes; however, they only dip into a pool of fluid interests that is much bigger and deeper. Considering the current state of flux, this collection of essays seeks to contribute a number of exemplary case studies on fluid materials in action to the general discourse on liquidity, which otherwise would remain rather too hypothetical. Moreover, the book’s purpose is also to introduce young German art historical views, among others, to an international debate that is predominantly held in English. As we have suggested above, from an art historical perspective there are many reasons to pay attention to actual fluids: they have been increasingly used in art since the turn of the nineteenth century; they call for the development of alternative methods of analysis and interpretation; they might help us to compensate for the neglect of real materials in favor of issues of materiality, as well as the accompanying effect of reducing materials to the “hard physicality of the world”; they act as a counterbalance to the systematic bias towards the hardware of material culture; they run counter to the theoretical reification of materials into enclosed, object-like entities; they allow for a critical reassessment of prevailing metaphors and representations of fluidity; they might enable a more complex thinking of material agency, et cetera. Our strategic appropriation of liquid materials, however, by no means aims to play off the fluid against the solid, or to reinforce the alleged opposition between the two. As many of the essays demonstrate, both are far too entangled with each other, and there are manifold transitions possible between them. Neither is the fluid the inversion or antagonist of the solid – i.e. its complete other – nor is it some sort of liquefying nemesis. This becomes especially obvious when considering actual fluid materials, instead of resorting to a metaphorical plane that sets ‘the fluid’ and ‘the solid’ neatly apart. Moreover, we do not imply that ‘the fluid’ is an exclusively unproblematic, positive term or that it provides a progressive escape route from a restrictive ‘solid theory’. Rather, our involvement with the aesthetics and epistemology of the fluid strives to infuse current debates on art and material/ity with insights gained from the actions of liquid substances, which are

otherwise rather underrepresented. In so doing, we hope to further the present efforts to arrive at a fuller understanding and acknowledgment of the processes that make up our world of materials.

Bibliography

- Assmann, Aleida (1991). "Fest und Flüssig: Anmerkungen zu einer Denkfigur," in *Kultur als Lebenswelt und Monument*, ed. Aleida Assmann & Dietrich Hardt, pp. 181–199. Frankfurt am Main: Fischer.
- Bauman, Zygmunt (2000). *Liquid Modernity*. Cambridge, UK: Polity Press.
- Bennett, Jane (2010). *Vibrant Matter: A Political Ecology of Things*. Durham, NC: Duke University Press.
- Braidotti, Rosi (2002). *Metamorphoses: Towards a Materialist Theory of Becoming*. Cambridge, UK: Polity Press.
- Clark, David (2010). *Water and Art: A Cross-Cultural Study of Water as Subject and Medium in Modern and Contemporary Artistic Practice*. London: Reaktion Books.
- Coole, Diana (2013). "Agentic Capacities and Capacious Historical Materialism: Thinking with New Materialism in the Political Sciences," in *Millennium: Journal of International Studies* 41(3), pp. 451–469.
- Coole, Diana & Frost, Samantha, ed. (2010). *New Materialisms: Ontology, Agency, and Politics*. Durham, NC: Duke University Press.
- DeLanda, Manuel (2016). *Assemblage Theory*. Edinburgh: Edinburgh University Press.
- Dogramaci, Burcu (2016). "Water, Steam, Light: Artistic Materials of Immersion," in *Immersion in the Visual Arts and Media*, ed. Burcu Dogramaci & Fabienne Liptay, pp. 20–39. Leiden: Brill.
- Dolphijn, Rick & van der Tuin, Iris, ed. (2012). *New Materialism: Interviews and Cartographies*. Ann Arbor, MI: Open Humanities Press.
- Espahangizi, Kijan & Orland, Barbara (2014). "Pseudo-Smaragde, Flussmittel und bewegte Stoffe. Überlegungen zu einer Wissensgeschichte der materiellen Welt," in *Stoffe in Bewegung: Beiträge zu einer Wissensgeschichte der materiellen Welt*, pp. 11–35. Zurich & Berlin: diaphanes.
- Hahn, Hans Peter & Soentgen, Jens (2011). "Acknowledging Substances: Looking at the Hidden Side of the Material World," in *Technology and Philosophy* 24(1), pp. 19–33.
- Ingold, Tim (2010). "The Textility of Making," in *Cambridge Journal of Economics* 34(1), pp. 91–102.
- Ingold, Tim (2011). *Being Alive: Essays on Movement, Knowledge and Description*. Oxon: Routledge.
- Irigaray, Luce (1985). "The 'Mechanics' of Fluids," in *This Sex Which is not One*, transl. Catherine Porter, pp. 106–118. Ithaca, NY: Cornell University Press.

- Kirschner, Roman, ed. (2017). *Raw Flows: Fluid Mattering in Arts and Research*. Berlin: De Gruyter.
- Knappett, Carl & Malafouris, Lambros, ed. (2008). *Material Agency: Towards a Non-Anthropocentric Approach*. New York, NY: Springer.
- Nakas, Kassandra, ed. (2015). *Verflüssigungen: Ästhetische und semantische Dimensionen eines Topos*. Paderborn: Wilhelm Fink Verlag.
- Rheinberger, Hans-Jörg (2010). *An Epistemology of the Concrete: Twentieth-Century Histories of Life*. Durham, NC: Duke University Press.
- Rübel, Dietmar (2012). *Plastizität: Eine Kunstgeschichte des Veränderlichen*. Munich: Verlag Silke Schreiber.
- Stephens, Elizabeth (2014). "Feminism and New Materialism: The Matter of Fluidity," in *Interalia: A Journal of Queer Studies* 9, pp. 186–202.
- Wagner, Monika (2001). "Material," in *Ästhetische Grundbegriffe*, vol. 3, ed. Karlheinz Barck, pp. 866–882. Stuttgart & Weimar: J.B. Metzler.
- Wagner, Monika (2002). *Das Material der Kunst: Eine andere Geschichte der Moderne*. Munich: C.H. Beck.
- Wall, Jeff (1989). "Photography and Liquid Intelligence," in Wall, Jeff (2007). *Selected Essays and Interviews*, pp. 109–110. New York: Museum of Modern Art.
- Witte, Georg (2010). "Die Flüssigkeit des Worts: Verführungen einer poetologischen Metapher," in *Paragrana: Internationale Zeitschrift für Historische Anthropologie* 19(1), pp. 165–179.