The Properties of Objects

Walt Disney's Fantasia

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On 23 December 1935, a Monday, Walt Disney addressed a memorandum of eight pages to his collaborator Don Graham, a drawing teacher. Therein he outlined thoughts about how his studio's animators should be trained. Dictating to a typist, Disney spoke with urgency: "Right after the holidays", the memo begins, "I want to get together with you and work out a very systematic training course for young animators, and also outline a plan of approach for our older animators." At that time, he sought to realize his idea for a feature-length cartoon that could rival even the most successful Hollywood films. Having grown his staff to more than 250 employees, Disney was intensively refining his production methods and, in turn, describing them in more detail than ever before. As he wrote to Graham: "I am convinced that there is a scientific approach to this business, and I think we shouldn't give up until we have found out all we can about how to teach these young fellows the business."

Disney's "scientific approach", as pragmatic as it is, has a real theoretical depth. This becomes particularly clear when one delves further into what he calls "fantasies of things". "The first duty of the cartoon", Disney explains,

"is not to picture or duplicate real action or things as they actually happen – but to give a caricature of life and action – to picture on the screen things that have run thru [sic] the imagination of the audience to bring to life dream fantasies and imaginative fancies that we have all thought of during our lives or have had pictured to us in various forms during our lives. Also to caricature things of life as it is today – or make fantasies of things we think of today."

A copy of this document, probably made originally for an animator, has been published on http://www.lettersofnote.com/2010/06/how-to-train-animator-by-walt-disney.html (last accessed 8 January 2018). Another copy in the Walt Disney Archives is quoted in Barrier, Michael: The Animated Man: A Life of Walt Disney, Berkeley 2007, p. 116. For such "fantastic things" to be appreciated by the audience, Disney elaborates, "there must be a familiar, sub-conscious association", "something based on an imaginative experience or a direct life connection". Fantasies of things are anchored in an immediate experience of reality and life. They are the result of an everyday human creativity that involves even the "sub-conscious", and can take complex artistic forms in some cases.² It is precisely this essential linkage between experience, fantasy and creation that we would like to explore in the following pages.

With these connections in mind, Disney suggested to Don Graham a didactic method for training students in drawing, an approach that broke with academic traditions:³

"I have often wondered why, in your life drawing class, you don't have your men look at the model and draw a caricature of the model, rather than an actual sketch. But instruct them to draw the caricature in good form, basing it on the actual model. [...] I still think this is a very good idea, and constitutes a far better approach for the younger men than giving them too many straight natural things that direct their minds to the unimaginative end of the business."

Disney's memo goes on with a series of ideas for exercises – focusing, for example, on how fat, skinny or short figures bend, lift, sit, push or pull; on their bodily and facial expressions; on what makes them move; on rhythm and balance – intended to "stir the imagination of the men, so that when they get into actual animation, they're not just technicians, but they're actually creative people". The concept of a "caricature of life and action" would remain central for Walt Disney; he expanded on it in a 1938 interview with the *New York Times Magazine*, which bears the title "Disney's 'Philosophy'":

"Our most important aim is to develop definite personalities in our cartoon characters. We don't want them to be just shadows, for merely as moving figures they would provide no emotional response from the public. Nor do we want them to parallel or assume the aspects of human beings or human actions. We invest them with life by endowing them with human weaknesses which we exaggerate in a humorous way. Rather than a caricature of individuals, our work is a caricature of life."

The feature-length cartoon Disney was working on at the end of 1935 was *Snow White* and the Seven Dwarfs, which would be released two years later, just before Christmas 1937. It was an immense success, and the article in the *Times* was published in its

- Disney's psychological conception of the art of caricature comes close to a pioneering article published shortly later, articulating art history and psychoanalysis: Kris, Ernst / Gombrich, Ernst H.: The Principles of Caricature, in: British Journal of Medical Psychology 17, 1938, p. 319–342. See Moser-Ernst, Sybille / Marinelli, Ursula: The Unfinished Caricature Project by Ernst Kris and Ernst Gombrich Open Questions and an Attempt at Answering Them [German 2015], in: Moser-Ernst, Sybille (ed.), Art and the Mind Ernst H. Gombrich. Mit dem Steckenpferd unterwegs, Göttingen 2018, p. 179–203.
- 3 On the earlier history of drawing manuals, see Heilmann, Maria / Nanobashvili, Nino / Pfisterer, Ulrich / Teutenberg, Tobias (ed.): Punkt, Punkt, Komma, Strich. Zeichenbücher in Europa, ca. 1525–1925, exh.-catal. Munich, Zentralinstitut für Kunstgeschichte, Passau 2014.
- 4 Churchill, Douglas W.: Disney's 'Philosophy', in: *New York Times Magazine*, March 6, 1938, p. 23, quoted in Barrier 2007 (see note 1), p. 132.

wake. Shaping "definite personalities in [the] cartoon characters", comparable to those of live actors, was a great difficulty not only from a technical standpoint but also in terms of logistics. The work of the animators had to be coordinated and hierarchized with the greatest precision to avoid any incoherence in the visual and emotional rendering. Each of the main animators, at the helm of a designated team, was entrusted with the design of one character; in this sense, the animator and the live actor functioned as counterparts, each being responsible for presenting a single character on screen. Disney himself maintained general oversight and was wont to give instructions performatively, by assuming a character and acting out its mannerisms in front of his team. The difficulties of such a complex method only increased after *Snow White*, when work proceeded with *Pinocchio* (released 1940) and *Bambi* (1942). By February 1938, around 675 people were employed by Disney. His studio had been reputed in the early to mid-1930s to be a particularly collegial atmosphere, but had now become a creative factory in which the boss could hardly know all his collaborators personally.

Against this backdrop, another project was developed that would become emblematic for Disney's work. With a 'fantastic thing' at its core, The Sorcerer's Apprentice lends visual form to an orchestral music piece by the French composer Paul Dukas (1897), who was inspired himself by Johann Wolfgang von Goethe's poem Der Zauberlehrling (1797). The idea for this cartoon first emerged in 1936. In 1937, Disney established a collaboration – unprecedented in type – with Leopold Stokowski, the popular conductor of the Philadelphia Orchestra, to produce the score for The Sorcerer's Apprentice. By early 1938, the studios had invested so much in this project that a short film no longer made sense. Disney made the decision to add other pieces of visually interpreted classical music, with the aim of creating a complete feature film. Originally titled The Concert Feature, the film was renamed Fantasia in fall 1939 and released in November 1940. The Italian or Latin title itself registers a long tradition in the history of the arts: in classical music from the 16th century on, fantasia referred to a musical composition derived "solely from the fantasy and skill of the author who created it".8 In the visual arts as well, innovative creations were called in Italian fantasie, while the mental faculty to invent such things (fantasy) was considered a requisite of every great artist as early as 1400 – in addition to an agile hand with which to materialize these figments of imagination.9 Concerning the film

⁵ Cf. ibid., p. 117.

⁶ Cf. ibid., p. 137.

⁷ Cf. ibid., chap. 4, "A Drawing Factory", p. 134–167; Watts, Steven: The Magic Kingdom: Walt Disney and the American Way of Life, Boston / New York 1997, chap. II.9, "The Fantasy Factory", p. 164–182.

⁸ This definition was coined by the Catalan composer Luis de Milán between 1535 and 1536. See Field, Christopher D. S. / Helm, E. Eugene / Drabkin, William: Fantasia, in: Sadie, Stanley (ed.), The New Grove Dictionary of Music and Musicians [1980], 29 vol., London 2001, vol. 8, p. 545–558, here p. 545.

⁹ Kemp, Martin: From ,Mimesis' to ,Fantasia'. The Quattrocento Vocabulary of Creation, Inspiration and Genius in the Visual Arts, in: Viator 8, 1977, p. 347–398; Löhr, Wolf-Dietrich: Handwerk und

itself, we know that Roy O. Disney, Walt's older brother who was in charge of the financial aspects of the company, approved the title because the word "has a nice sound & is intriguing". In any case: at the core of *Fantasia* was the originally conceived project, *The Sorcerer's Apprentice*, which follows a young sorcerer named Mickey Mouse as he deals creatively with a thing – namely, a broom.

Mickey and the Broom: A Story of Object Properties

Is a broom a thing or an object? In his 1935 memo, Walt Disney evokes "fantasies of things" or "fantastic things" somewhat generally. Although he is concerned mainly with techniques for animating human or animal bodies, his approach to animation does not exclude inanimate beings. In the present book, we concentrate on the latter, discussing what we term 'object fantasies'. The notion of 'thing' insists on the concreteness of reality, what is materially present or what must be taken into consideration or dealt with in a given situation.¹¹ The term 'object' directs attention to a very different and more complex question. As its etymology suggests, an object is defined in relation to a subject. Subjects perceive objects with their senses, which means that it is through their sensory, perceptible properties that objects exist and function. These properties are experienced by the subject, processed cognitively, and stored in the memory; subsequently such properties can be recombined to create fantasies of objects. These are the very "dream fantasies and imaginative fancies", to return to Disney's wording, that we all experience, consciously or not, and that Disney wanted his cartoons to be about. Things are given, taken or used; objects are the result of perception, cognition and creation. According to this reasoning, we will characterize the broom in Fantasia as an object. The aim of the present book is to analyze creation processes that involve object fantasies, or rather to show through examples the how and why of such an approach.

In the history of animated cartoons, *The Sorcerer's Apprentice* was to reach a new level in the dynamic between sound and animation. Since the end of the 1920s, when the synchronization of moving images with a recorded soundtrack had become technically possible, music had developed into an essential element of character animation. This appears already in a 1928 cartoon, *Steamboat Willie*, which was both the first successful

- Denkwerk des Malers. Kontexte für Cenninis Theorie der Praxis, in: id. / Weppelmann, Stefan (ed.), Fantasie und Handwerk. Cennino Cennini und die Tradition der toskanischen Malerei von Giotto bis Lorenzo Monaco, exh.-catal. Berlin, Gemäldegalerie, Munich 2008, p. 152–177.
- 10 Quoted in Gabler, Neal: Walt Disney. The Triumph of American Imagination, New York 2006, p. 316.
- See for example the discussion in Roßler, Gustav: Der Anteil der Dinge an der Gesellschaft. Sozialität Kognition Netzwerke, Bielefeld 2016, p. 19–21. For an historical perspective: Sutton, John / Keen, Nicholas: Cognitive History and Material Culture, in: Gaimster, David / Hamling, Tara / Richardson, Catherine (ed.), The Routledge Handbook of Material Culture in Early Modern Europe, Aldershot 2017, p. 46–58.

sound cartoon and the first public apparition of Mickey Mouse. Until sound synchronization, only the exterior movements of a character's body could be animated, often with an emphasis on slapstick humor: physical abilities or adventures were the main point. Technological advances in the 1920s allowed for music to unfold at equal pace with the evolutions of a character on screen, imparting a stronger effect of inner movement and emotion.¹² Consistent with how Walt Disney described his goals for animation in the 1938 interview quoted above, these developments allowed animators to "develop definite personalities in our cartoon characters", eliciting from the viewer an "emotional response". The character of Mickey Mouse benefited tremendously from the new wedding of sound and animation, becoming immensely popular by the 1930s. In The Sorcerer's Apprentice, the figure was redesigned with softer volumes, becoming more visually expressive, with the aim of generating a real synergy with Dukas's complex musical piece. Clearly, Disney's ambition was to put the medium of animation on par with high art. The score by Philadelphia conductor Leopold Stokowski was recorded and rendered using a multichannel sound system called 'Fantasound' that had been specially formulated to create an overwhelming listening experience.

Summing up the transformation of Mickey Mouse into Goethe's *Sorcerer's Apprentice*, Disney described the plot in three sentences:

"The thought is this: Mickey is an apprentice wanting the power of the Sorcerer to do his work. Then when that happens and he has that power, then he dreams of his great power. But when he awakens and finds what the broom has done and he hasn't the power to stop the broom, we find Mickey having to resort to an axe and try to stop the broom's work." ¹³

Mickey provokes the fantastic animation of an object, the broom, and is forced ultimately to reckon with the dramatic consequences. As will become clear, there is no more perfect narrative for a superlative cartoon that would become the crowning achievement in Disney's art and, at the same time, would reflect his ongoing work. Instead of following Mickey as protagonist, we will now explore the constitutive role of object properties in the creation of object fantasies by way of looking closely at what happens to the broom itself in *The Sorcerer's Apprentice*.

When the broom appears for the first time, it leans on a wall in the dark cavern that the mighty sorcerer has just left. A bright light is spotted directly on it, projecting its distinctive shadow on the wall. The broom is made of a wooden stick with straw bristles bound around its lower end by a cord. At the very moment that the broom becomes visible on screen, it also attracts the attention of the apprentice Mickey. Just a moment earlier,

¹² See on this Jaszoltowski, Saskia: Belebende Musik. Zur Akustik der animierten Welt um 1930, in: Bruckner, Franziska / Feyersinger, Erwin / Kuhn, Markus / Reinerth, Maike Sarah (ed.), 'In Bewegung setzen...' Beiträge zur deutschsprachigen Animationsforschung, Wiesbaden 2017, p. 57–70. See also Kletschke, Irene: Klangbilder. Walt Disneys 'Fantasia' (1940), Stuttgart 2011.

¹³ Quoted in Culhane, John: Walt Disney's Fantasia [1983], Abrams / New York 1987, p. 84.

we have seen Mickey laboriously carrying a heavy pair of water buckets, and his common usage of the broom in daily chores is implied. As soon as his master has exited the space, leaving on his table the hat that confers to him magical powers, the apprentice puts on the hat, his intention to experiment being clear. In front of the broom, he performs energetic finger gestures, engaging his entire body. The object appears, fantastically, to answer: the broom begins to radiate light – first blue, then green, then blinding white flashes. Its visual properties are altered by Mickey's command. But this is just the beginning. At his order, the broom takes off from the wall and makes a few clumsy jumps. No longer an instrumental thing, it has now taken on properties of an animated being. Finally standing at attention between the two water buckets, while responding to further gestures, the broom transforms into a living body when one, then two arms grow out of its wooden trunk. Likewise, the bundle of straw at the base of the broom splits into two equal parts equivalent to legs. With its new hands, the broom grasps the water buckets; with its legs it proceeds to follow Mickey up the stairs. At this moment, the bristles recall the curvy form and elastic movements of a walking person seen from behind, while the cord that binds them together looks like a belt fixing a garment. Unlike the apparition of the arms, these associations are not acted out on screen but are more subtly implied. Interestingly, departing both from Goethe's poem and from preliminary sketches, Disney decided against giving the broom a face, perhaps because it would have endowed it with too much life.¹⁴ The object's steps are accompanied, in place of the rhythm of the original verses, by the tune of a bassoon – a resonating woodwind instrument whose shape, material and function further evoke the animated wooden protagonist. The broom proves physically adept at filling the buckets with water and carrying them: its wood is obviously more resilient than the mouse-apprentice's arms. Mickey continues to make conducting movements that turn into a joyful dance. Before long, the now dancing broom is able to complete his task independently.

What we have seen and described up to this point is the semantic reinterpretation of discrete material properties of the broom – wood growing branches that become efficient arms, bristles that look like legs, the elasticity of the bristles even evoking musculature. The physical relation of Mickey himself to the broom is an additional element. They are of similar height and, although we never see this, we know that Mickey's usual cleaning work would entail a set of rhythmical movements conditioned by the broom as a thing and by his own body and intention. Such a common experience – most of us have swept with a broom – is reinterpreted when the apprentice, through magic, transforms this relation

¹⁴ A sketch is published ibid., p. 97. Goethe writes: "Auf zwei Beinen stehe, / oben sei ein Kopf, / eile nun und gehe / mit dem Wassertopf!" ("On two legs now stand, / With a head on top; / Waterpail in hand, / Haste, and do not stop!"). Goethe, Johann Wolfgang von: Der Zauberlehrling, in: Johann Wolfgang Goethe. Sämtliche Werke nach Epochen seines Schaffens. Münchner Ausgabe, ed. by. Karl Richter et al., 21 vol., Munich 1985–1998, vol. 4.1, 1988, p. 874–877, here p. 875 (The Pupil in Magic, trans. in: Boyesen, Hjalmar H.: Goethe's Works Illustrated by the Best German Artists, 5 vol., Philadelphia 1885, vol. 1, p. 81–83, here p. 81).

into one of an entirely different nature: no longer using the broom as a mere instrument or thing, he projects his own action into it. Becoming animated in a progression comparable to a learning process, the broom is soon able to imitate and even to replace the apprentice himself. If we refuse to take at face value the magical elements of the narrative, then we must consider the animation of the broom to take place in Mickey's imagination, with him cognitively transforming his experience of the broom and re-creating it according to his wishes. Mickey grows tired of carrying his buckets. One can likely relate to his fantasy of an object-turned-coworker amid difficult physical labor, and even to the experience of 'imaginative fancy', to use Disney's own words, that the use of an object – a broom moving in one's hands feeling at some moments like an independent being – can create. These elements no doubt contributed to the resonance and the cultural appeal of the cartoon.

Of course, the story shifts dramatically when the animated broom gets out of control. Mickey continues to make conducting movements that correspond to the music and, consequently, to the broom's activity, despite the fact that the object now works on its own. Satisfied and relieved, the apprentice falls asleep in the sorcerer's chair. In a euphoric dream, he ascends a platform in the heavens from which he conducts, all at once, Dukas's music and the movements of the stars, clouds and ocean. Meanwhile, though, the broom has continued to transport buckets of water, ultimately flooding the cavern. Mickey awakes; he tries to stop his creature, but to no avail. The now threatening broom ignores him, walks over him, throws him into the cistern and works at an increasing pace. In a desperate attempt, Mickey takes an axe and reduces the broom to splinters of dead wood, that is, to mere objecthood. Immediately, the strong waves of music cease. Yet, just as immediately, the bassoon raises its uncanny voice: the broom cannot be destroyed so easily. The disparate wood fragments awaken and transform into a multitude of brooms, each equipped with a pair of buckets. Mickey's problem has grown exponentially worse. The mass of brooms evokes an army marching in formation, an effect amplified by the dramatic shadows they cast in the space of the cavern. They even manage to walk under the water surface, absurdly persisting in their work even while surrounded by water. The apprentice himself is taken up in the flood and rides a whirlpool onto the sorcerer's monumental book of magic, in which he searches for a spell to remedy his predicament. Ultimately, the sorcerer reappears and powerfully commands the water to vanish, with the gesture of Moses at the Red Sea. In the final scene, Mickey hands over to his master first the hat and then the broom, the latter restored to its status as a thing. Resuming his chores, he humbly picks up the two buckets. The sorcerer uses the broom – again in its capacity as an instrument – to sweep the mouse out the door.

On the cultural history of the broom, see Korff, Gottfried: Bemerkungen zur Dingbedeutsamkeit des Besens, in: Anzeiger des Germanischen Nationalmuseums, 1995, p. 33–44; Roettig, Petra: Kehraus. Der Besen als politisches Bildmotiv, in: Warnke, Martin (ed.), Politische Kunst. Gebärden und Gebaren, Berlin 2004, p. 33–52; Venjakob, Judith: Der Hexenflug in der frühneuzeitlichen Druckgrafik. Entstehung, Rezeption und Symbolik eines Bildtypus, Petersberg 2017, p. 191–220.

This most spectacular part of the short film reflected the working process of the Disney studio. The authoritative attitude of the sorcerer, as he raises his eyebrow at Mickey at the very end of the scene, was adapted from a characteristic gesture of Walt Disney when expressing doubt to his collaborators. ¹⁶ Yet, Disney could be equally identified with the unfortunate Mickey in the face of the legion of animated brooms. As he stated when the studio was working on the film, in the dream sequence the apprentice's actions are "those of a conductor leading a symphony orchestra of the elements". ¹⁷ Just a year later, in November 1938, he characterized his own work in similar terms in an interview:

"I like our cartoons to be put together like a symphony. You know, there's a conductor — I guess I'm it — and then there are the solo violins, and the horn players, and the strings, and a lot of other fellows, and some of them are more stars than others, but every one has to work together, forgetting himself, in order to produce one whole thing which is beautiful." 18

In *The Sorcerer's Apprentice*, this vision of a symphony of workers is depicted with much ambivalence. Much like Mickey in his dream, Disney, especially after the phenomenal success of *Snow White*, had reached unprecedented heights in his creative endeavor and in his sphere of influence. He must have felt like he could animate the stars and the entire world. At the same time, the staff in his studio had grown so numerous that keeping the production lines under control grew more and more difficult. There was no great leap between an efficient working flow and a chaotic flood. The multiple shadows of the broom army, projected on the cavern's walls just as cartoons are projected on a screen, were precisely what Disney hoped to avoid for his characters, as he explained in his *New York Times* interview of 1938: "We don't want them to be just shadows, for merely as moving figures they would provide no emotional response from the public." If the brooms do wake emotions in *The Sorcerer's Apprentice*, it is primarily as a threat to Mickey: although they come to life as acting bodies, their action remains automatic. The brooms move as machines or soldiers, never becoming emotionally endowed characters in their own right.

Object Properties & Object Fantasies

What can we learn from Mickey's adventure with regard to the role of object properties in object fantasies? Disney's work is as suggestive as it is analytical, and *The Sorcerer's Apprentice* reveals much about his systematic search for how to "do the fantastic things", as he formulated in his 1935 memo. His animators elaborated creatively

¹⁶ Cf. Gabler 2006 (see note 10), p. 295.

¹⁷ Quoted in Culhane 1987 (see note 13), p. 96.

¹⁸ Quoted in Barrier 2007 (see note 1), p. 100-101.

on a study of real experiences, with emphasis on two aspects that the cartoon medium channeled in a novel way. The first of these was the visual appearance of objects and bodies: their shapes and colors. In this respect, the artists could draw on a century-long tradition of image-making. More complex was the second aspect: movement, which encompassed additional properties like balance, action or rhythm, as well as the physical properties of materials, such as elasticity and strength. This posed an unprecedented challenge to the visual artists. Beyond visual perception, the elements of movement appealed to experiences of proprioception – that is, the feeling one has of his or her own body, either in movement or in rest, or in relation to objects and to other bodies. The Disney artists carefully observed the properties of moving bodies and objects in order to exaggerate them or to reinterpret them through a process of imaginative recalibration.

Since Disney's "fantasies" were not simple references to existing realities, his cartoons offered something altogether different from live action movies, which are inherently more referential given their reliance on photographic techniques. Explaining how a cartoon convincingly shows fantastic objects that do not exist as such in reality, such as a mouse that dances or a broom that works on its own, requires taking into full consideration how humans perceive the properties of real objects and how creative they are with such experiences. This has broader theoretical implications for the nature of images, which do not convey things in one-to-one relation to the visible world, but rather exist as manifestations of perceived or imagined object properties.¹⁹ Yet, images, even moving ones, have limited possibilities with regard to conveying the invisible properties of objects. We must therefore extend what Walt Disney's Fantasia has taught us to all kinds of object properties, and consequently to all human senses. Haptic properties, temperatures, sounds, tastes or smells can give rise in equivalent ways to object fantasies and their realizations, for example in clothing, in a meal or in a perfume: these, too, are experienced through the senses, interpreted through cognition and creatively associated with earlier experiences and with one another, in a single instant. Such creative experiences with objects are the very substance of everyday life. In every situation, and even in a state of dreaming, humans perceive the sensual properties of objects, engage cognitively with them, and imagine or realize object fantasies that shape subject-object situations to follow. Object properties and fantasies are therefore at the core of human experience.

The authors of this book have developed diversified approaches to object fantasies and to understanding how people dealt historically and still deal today with objects, always poised between experience and creation. The challenge of such inquiries, of course, is that if all of us do experience objects, the experiences of others can only be reconstructed indirectly (for past experiences) or observed from the outside (for present experiences). Therefore, we believe that a variety of strategies is necessary to grasp such complex phenom-

¹⁹ For a theoretical contribution in this direction, see Hänselmann, Matthias C.: Erst die Bewegung formt die Figur. Kognitionssemiotischer Erklärungsansatz zur Kommunikation und Rezeption des Zeichentrickfilms, in: Bruckner / Feyersinger / Kuhn / Reinerth 2017 (see note 12), p. 71–89.

ena, which necessarily come to bear on a range of humanities and social sciences. Among these approaches, art history, in particular, has much to contribute. In his text on "Object Studies in Art History", Philippe Cordez presents the research field core to the present book and to the book series that it inaugurates.

The following twelve texts are interdisciplinary propositions that develop promising methodological approaches to object fantasies. Reconsidering the ancient origins of a seemingly straightforward object, Angela Berthold traces the invention of coins as flat circular objects that can carry all kinds of images on their two sides. Romana Kaske focuses on how material properties of complex fictional objects, especially those connected to warfare, open possibilities for producing meaning within medieval narrative literature. Florian Wöller sheds light on the term 'object' in its formative period, that of late medieval philosophy, pointing to suggestive resonances for today's debates. Alexander Collins shows how a 15th-century book could be evocative of the Virgin Mary's pregnant body when used in the mass ritual. Doron Bauer reflects on the potential of one specific object property, namely the form of the orb, following it through a historical series of object fantasies. Julia Saviello explores the strong cultural association between turtles and shields tangible in the Latin, Italian and German terms for the animal, and resonating in objects such as a turtle shell shield from Ambras Castle. Valérie Kobi discusses a violin once belonging to the painter Jean-Auguste-Dominique Ingres and how instrument and artist have remained tethered to one another, giving rise ultimately to a famous French locution. Basile Pallas studies how Henri Le Secq conducted a paradoxical experiment with the notions of objectivity and fantasy in an early series of photographs, one of which provides the cover image for this book. Jelena Stojković discusses a concept of abstract objects developed by surrealist photographers facing political oppression in 1930s Japan. Franziska Solte draws on psychological and psychoanalytical object theories to analyze an experimental, object-based film by the American artist Ericka Beckman. Through a case study on memory devices within Science Fiction, Emmanuelle Caccamo explains how these objects are in fact recombinations of earlier inventions across different media, in turn potentially inspiring the work of real engineers. Finally, Daniela Stöppel presents the ideologically problematic origins of the contemporary trend to minimize the presence of objects in our lives.

In his conclusive contribution, the anthropologist Ludovic Coupaye develops a theoretical reflection on how material objects can be understood as realized objects fantasies. Particularly significant to us is his proposition to consider objects not *within* 'contexts' – as is more common methodologically – but rather *as* contexts themselves. This entails considering objects as 'webs' of object properties that humans spin together to fit their material and symbolic needs in discrete situations. This notion of 'situation' seems much more precise than the traditional (and metaphorical) concept of 'context' because all creations and experiences of objects are themselves recontextualizations, and therefore are necessarily sited. Observing how object properties are actively drawn into relation with one other in the course of social activity emerges as an exact and innovative method for

the study of objects. Ludovic Coupaye was the keynote speaker at the Munich conference from which this book results. His engagement in the conference is evident in the numerous references he makes in his essay to the various papers; we thank him for this particularly generous and inspiring contribution.

The conference entitled at the time "Object Fantasies. Forms & Fictions" took place in October 2015 at the Center for Advanced Studies of Ludwig-Maximilians-Universität München. We address our warmest thanks to its team. The present book is one of the results of a research group on "Premodern Objects. An Archaeology of Experience", generously funded by the Bavarian State Ministry of Science and the Arts (Elite Network of Bavaria) and established at Ludwig-Maximilians-Universität München under the direction of Philippe Cordez for a term of five years (2013–2018). The editors of this volume were the founding members of the group. As we look back to a period of intense collaborative work, we would like to thank our colleagues who have joined the group later or have been affiliated with us as PhD students or postdocs: Ella Beaucamp, Hannes Fahrnbauer, Valérie Kobi, Thomas Moser, Joana Mylek, Joanna Olchawa, Julia Oswald, Susanne Pollack, Clara Reinecke and Philippa Sissis. We are particularly thankful to Julia Oswald for her editing work on these introductory pages as well as on the contributions by Philippe Cordez, Ludovic Coupaye and Julia Saviello.