Introduction

Jens Eder and Charlotte Klonk

Consider three well-known images. Each set in motion a particular kind of image operation that cannot be fully understood either by reconstructing the intentions of the producers or by considering single moments of its reception. Instead, a whole series of largely uncontrollable events came together to create a complex cluster of meanings that goes well beyond the images' efficacy at any specific point in time.

Image A: on 11 March 1993, the photographer Kevin Carter accompanied a United Nations humanitarian aid mission to South Sudan. He had thirty minutes to take photographs. While the adults of the village were busy collecting the delivery from the UN plane, Carter saw a small girl crouching on the ground - too weak to move, too starved to notice him or the vulture directly behind her. He shot a photo and chased the vulture away. Two weeks later the photograph appeared in newspapers around the world. More than any other picture it seemed to capture in one iconic image the consequences of famine and despair in Africa. In 1994, Carter won the Pulitzer Prize. Yet soon a storm of protest gathered with unprecedented force in the mass media and on the Internet. What happened to the child, viewers asked. Why did the photographer not help her? Was his interest in shooting an iconic image stronger than his humanitarian impulse? The editors of the New York Times, where the picture first appeared on 26 March 1993, were forced to reply that the ultimate fate of the girl was not known, but that it was a rule for journalists in Sudan not to touch victims of the famine in order to avoid the risk of transmitting diseases. Three months after receiving the Pulitzer Prize for the photo, Carter committed suicide. In 2006, Dan Krauss shot the documentary film The Death of Kevin Carter: Casualty of the Bang Bang Club, which was nominated for an Oscar in 2007, and the Chilean artist Alfredo Jaar conceived a video installation in 2006, The Sound of Silence, which also centred on the life and death of Carter in order to ask questions about the ethics of humanitarian photojournalism. The image had an impact on lives well beyond the tragedy that it depicts.

Image B: on 5 April 2010, WikiLeaks released a video that would make the whistle-blower Internet platform famous. Titled *Collateral Murder*, it showed

video footage from the targeting system of a US Apache helicopter during the Iraq War in 2007. In the incident, the Reuters journalist Namir Noor-Eldeen, the driver Saeed Chmagh and others were assumed to be insurgents and killed in a public square in eastern Baghdad. What shocked viewers around the world was that the assault continued after a minivan with unarmed adults and children arrived on the scene and two of them attempted to aid the wounded. The cynical comments of the helicopter crew as they made their decision to shoot caused a wave of moral outrage. Yet the publication of the footage also opened a can of controversy. Some criticised WikiLeaks for selectively highlighting certain aspects of the military battle in Iraq, whereas others applauded it for showing the abysmal truth of a nation that went to war on the precept of holding the higher moral ground (Adams 2010). Since its publication the video has been shared widely and is perhaps the single most influential set of images that has brought counterinsurgent image propaganda into discredit. On the one hand, its footage was instrumental in the death of innocent people and the imprisonment of Private Bradley (Chelsea) Manning, who was charged with disclosing the video. On the other, the video contributed to turning the tide of the war in Iraq, and to this day WikiLeaks' fame is connected with its disclosure.

Image C: on Wednesday, 20 August 2014, a video appeared on YouTube that showed the execution of the American journalist James Foley by a member of the militant jihadist group, the so-called Islamic State (IS). It appeared that Foley was executed somewhere in the desert in Syria. In the video he is seen in a long orange shirt reminiscent of the jumpsuits worn by detainees at the US military prison in Guantanamo Bay, Cuba. The use of this garb has been an iconographic sign of militant anger against the United States for at least a decade. In contrast to earlier videos of this kind, however, Foley's execution is staged in the open air. A wide stretch of the bleached Syrian desert, met at the horizon by the expanse of the blue sky, serves as the background of this scene. Behind Foley stands his masked executioner dressed in black, holding a knife in his hand. The stark colours and striking mise-en-scène are reminiscent of the 1995 Hollywood thriller *Seven* starring Kevin Spacey. It demonstrates IS's remarkable media affinity, evident in most of its propaganda material.

After the White House confirmed its authenticity, the footage quickly spread through other social platforms on the Internet. In newsrooms around the world, however, it raised ethical questions. How to report the brutal murder without becoming a propaganda tool of the IS? How to preserve the dignity of the victim while acknowledging the undeserved cause of his death? Most newsrooms decided against broadcasting the video altogether, showing instead a single static image. Most even pixelated the face of the journalist.

Although the footage was immediately banned from social media, and in the United Kingdom just watching constitutes a crime, it has been found and viewed well over a million times in Britain alone. Beheadings have always attracted viewers. Yet in this case the actual beheading cannot be seen. A significant cut in the video comes between the raising of the knife and the separation of the head. It

is as if the murderers knew that a botched beheading would have the capacity to be counterproductive. None the less, as controlled and image-conscious as the video appears to be, the reactions of the Western world were varied. On the one hand it stirred an unprecedented ethical debate that led to a fairly rigorous ban on its footage and a restrained, self-conscious showing of its imagery not practised previously when beheading videos were issued. On the other hand it drew the US government into a war in which it had so far been reluctant to engage. Whereas previously the US military declared it was acting solely as invited aids to the Iraqi Army, after the tragedy it began to conduct self-authorised air strikes in Syria in 2014. Allegedly, the video was intended to be a 'Message to America' (thus the title) to stop military interventions. Instead, it provoked a more concerted military action against IS than was ever planned. It is hard to say whether this response was a hidden aim of the producers of the video or whether their propaganda strategy backfired. Yet a man died in order for the video to come into existence. As is often the case in such no-win situations, the speed of deeds escalates and the spiral of deadly events spins out of control. More beheading videos were issued in the weeks that followed and more nations, such as Canada, were drawn into the war at home and abroad.

What do all three images have in common? Firstly, they all operate in areas of political conflict. The first stems from the field of humanitarian aid, the second from warfare and the third from the particular battle zone that insurgency and counterinsurgency produces. Secondly, they were all created with a specific purpose in mind, yet in each case their reception led to unforeseen and unintended effects. Thirdly, although all three images operated within the seemingly disembodied digital sphere of the Internet, their production and circulation led directly or indirectly to the physical death of real people. Finally, in all cases the images are the agens et movens in the unfolding of events.

This confluence illustrates the central premise of this book: images not only have expressive or illustrative, representational or referential functions, but also augment and create significant events. In all cases they are crucial factors within the dynamics of political conflicts. In what follows, we will define the contours of the field of image operations, consider empirical, theoretical and ethical questions that arise from their function in war, insurgency and activism and reflect on the relation between images, media and agency. Finally, we will survey existing literature on this subject and point towards some blind spots, before summarising the content of this book.

Image operations: contours of the field

Images are crucial to events in very different ways, only some of which have been explored so far. Well known, for example, is their power to create events by providing evidence. As several authors have argued, images not only depict news stories but are crucial to their legibility, illegibility and perceived reality

4 Image operations

(Barnhurst 1994; Azoulay 2008; Mirzoeff 2011). For many events to come to light, we require images. But, as Susan Sontag argued, if photographs are the only way to establish what has happened (as in the case of torture and other atrocities), then the evidence actually constitutes the phenomenon (Sontag 2003). Moreover, images, such as those produced in the prison of Abu Ghraib, are not only posterior but also anterior to events, and often the camera is an active, present participant in the scenario (Butler 2010; Nichols 2010). However, as the contributions to this book show, the causal effect of images is not exhausted by these two modes of operation. There are many different ways in which images are intentionally produced to have a specific impact. As their impact unfolds they become instrumental in a whole series of further events, both in the virtual and the physical world, that often go beyond the original intentions of their producers and sometimes even against them. It is in this sense that we understand the title of the book, *Image Operations*.

While images are operative in many areas of life – such as industrial production, navigation, surgery, advertising and pornography – political image operations seem to be of particular significance, as they regularly involve larger groups of people in fundamental ways. Political conflicts concern collective interests, values or goods, and they are fought out in ways that exceed usual forms of interaction and often threaten lives (Heidelberg Institute for International Conflict Research (HIIK) 2014). Today's conflicts are mediatised: media amplify the volume, speed, reach and level of conflictual involvement, influence the representation, performance and development of events and are instrumental in the structure of power relations. They reduce, intensify or transform existing clashes and even generate new types of conflict (Eskjær, Hjarvard and Mortensen 2015, 8–11). In short, they do not just reflect or represent conflicts but play performative and constitutive roles within them (Cottle 2006, 9). Images are central to this process and it is in situations of conflict that their operational role becomes particularly evident.

This book focuses on the use and function of imagery in three areas: contemporary warfare, insurgency/counterinsurgency and non-violent political activism. Between them, we hope, the ground of contemporary image operations is sufficiently covered, so that a spectrum of uses, reuses and abuses will emerge that is salient enough to be transferred to other fields. All three areas are, of course, highly charged areas of contemporary life. Images of suffering may arouse compassion among the global public, but they may also contribute to 'compassion fatigue', depending on their form and the kind of reporting in which they are embedded (Hoskins and O'Loughlin 2010). Still and moving pictures increasingly function as 'weapons of war' (Sommer 2003; O'Loughlin 2011) in battles of 'image warfare' (Roger 2013), and violent images of political terrorism have moved centre stage in insurgency strategies (Bolt 2012, 259). In all three areas, image operations aim at relatively strong, direct effects. The persons represented or addressed are to be affected in vital ways; their bodies or behaviours are to be changed. This is true for people hit by drone strikes, for suffering documented by activists and for hostages

decapitated in order to produce terrifying videos. The sociocultural impact of such images can hardly be overestimated, and it confronts us with urgent political, ethical and aesthetic questions.

As we are writing, discussions of such images abound in relation to war, insurgency and counterinsurgency in Ukraine, Syria, Israel, Pakistan and Paris; and in relation to activism and non-violent protest in Bangladesh, Brazil, Egypt and the United States. It should be clear from the start, however, that our focus in this book is not primarily on the journalistic and informational functions of these images or on their cumulative consequences, which usually take centre stage in accounts of media culture or political visual communication. Instead, we concentrate on cases in which images are used in operations with relatively strong and direct effects. The image operations discussed in this book have serious consequences: beyond altering states of mind, they affect bodies, and often life or death is at stake. Currently, such operations are reflected in journalists' reports about the sophisticated media department of IS (Becker 2014), about the 'pornography of jihadism' (Cottee 2014), about 'the martyrs' home movies' (Ratnesar and Shannon 2002), about soldiers working on the US drone programme (Linebaugh 2013) and about 'laborers who keep dick pics and beheadings out of your Facebook feed' (Chen 2014).

Although we have limited the contributions on image operations to three particular areas of political conflict, the scope of relevant imagery is still vast: it includes images as diverse as photographs, videos, diagrams and interactive simulations, which may be generated by human hands, optical devices or computers and may be still or moving, concrete or abstract, analogue or digital, two-dimensional or virtually three-dimensional. More often than not, these images do not stand alone but are combined with other semiotic forms such as written text, speech or music. They form parts of multimodal texts, intertextual networks, referential chains (Latour 1999) and larger discourses contributing to the constitution of knowledge and power (Foucault 1966). Moreover, image operations of this kind are always also media operations. Images are created, stored and spread by different devices, ranging from posters to broadcast media and Internet platforms to specific technologies such as the Arrowhead targeting system of the helicopter that took the footage of the Collateral Murder video. The specific potential of different media for producing, manipulating, storing, spreading and interacting with images leads to different operations. Furthermore, the military, insurgent and activist operations performed with, through and by diverse images and media are equally multifarious. For instance, in war, images are used to monitor military actions or steer drones from afar. Yet sometimes the same images are also employed in public diplomacy and image warfare. In the context of insurgency, violent images spread fear and provoke opponents. At the same time, however, they may be used to recruit future martyrs. In political activism, images of suffering and injustice document, appeal to and trigger attention, emotion and collective behaviour. All of this takes place in the social context of various political relations and conflicts between communities, groups, institutions, organisations and states.

So who or what is operating in image operations? As the contributions to this volume demonstrate, we are dealing with complex networks of agencies, which could be modelled according to actor-network theory or other systemic approaches. Persons and organisations use images as tools with certain functions that conform to specific possibilities and constraints of different media in certain political situations. In an important sense, however, images themselves also act. They have a dynamic of their own, suggest certain operations and crucially shape them. Today, the circulation of images on the Internet and across media makes this dynamic more obvious than ever. Image operations have dramatically changed over the last two decades. Digital, mobile and social media facilitate the production and circulation of images. New kinds of images emerge: digital composites, interactive simulations, augmented realities (Grau and Veigl 2011). Virtually every phone today is a camera connected to the Internet, and images are shared and spread through social media such as Twitter, Instagram, YouTube and Facebook. Whereas non-professionals share user-generated images on the Internet, big players push their content across all available platforms. Digital technologies have fundamentally altered the ways in which governments, the military, activists, terrorists and citizens engage with images in political contexts. The traditional mass communication system seems to have given way to a 'rhizomatic communication system of multi-directional flows, in which images are used as weapons by diverse actors in so-called 're-mediation battles' (Roger 2013). The sheer number of available images is rapidly increasing; their global circulation allows for citizen journalism and worldwide witnessing (fostered by projects like those of our contributors Stephanie Hankey, Marek Tuszynski and Sam Gregory). Practices of reusing media images in new contexts thrive, as already described by Jay Bolter and Richard Grusin (Bolter and Grusin 1999). In this context, many image operations become much harder to control, and the specific force of images becomes even more important.

The unforeseeable travels of images in the new media environment may be illustrated by a Reuters photo from 2001, which is briefly mentioned in Henry Jenkins's book Convergence Culture (Jenkins 2006, 1-2). It shows people in Bangladesh after the 9/11 terrorist attacks protesting against the imminent invasion in Afghanistan and demonstrating their support for Osama bin Laden. The photo is part of a complex chain of images. The photograph shows a poster, which already re-mediates several pictures of bin Laden. Strangely, however, these pictures include another figure: Bert, the grumpy character from the children's television show Sesame Street. How could this happen? At first, Bert's appearance went unnoticed even by Reuters, but soon he ended up in news reports by CNN and Fox. It turned out that the poster publisher downloaded the images from the Internet. Probably without knowing who Bert was, he took a collage of bin Laden and Bert which was originally part of a student's website called 'Bert Is Evil', featuring the puppet engaged in sinister activities. The broadcast reports about the case led to judicial action by the producers of Sesame Street – and to several imitations on the Internet. Jenkins mentions this case to illustrate how content migrates

across media platforms and cultural boundaries. Yet it is also an example of an image operation gone awry. Osama bin Laden was an iconic figure, a 'bio-icon' in the sense of Bishnupriya Ghosh (Ghosh 2011). Images of him were able to elicit strong emotions of hate and fear on the one hand, and admiration and satisfaction on the other. For a moment, the accidental appearance of Bert changed the emotional force of bin Laden's image in the eyes of Western audiences to one of comic relief and smug feelings of superiority.

We do not claim that image operations of this kind are historically unprecedented. Images have always been central to many areas of human activity, shaped their function and generated further images and events (Bredekamp 2010). Recently, however, scholarly and artistic attention has been drawn to the various ways in which modern image technologies have been inserted into crucial and sensitive stages of an operation that differ from their function in the past. In warfare, image technology has replaced the commander-in-chief in surveying the field of action. Today cameras are appended not only to missiles and bombing devices, but also to bombers and pilotless drones. Warfare - as Harun Farocki's four-part film series Serious Games, discussed by Volker Pantenburg in this volume, demonstrates – has now more than ever become an act of image operation. Insurgency and counterinsurgency also have a long history of operating by means of images. From the Anarchists in the nineteenth century to al-Qaida, insurgent actions function by creating widespread media attention. They are in turn answered by equally determined counter-imagery attacks circulated by the threatened states (Klonk 2013). Yet the way in which images today can be produced and widely published by nearly anybody, bypassing newsrooms and editorial boards, is unprecedented and produces additional difficulties and effects. This shift is true also for visual campaigns launched by political activists who seek to mobilise not only cash flows but also bodies on the ground and at the ballot box. Yet here too the Internet is not only an aid to the campaigns but sometimes also their foe (see Gregory, this volume).

Images, agency and ethics

This book positions itself broadly in the field of visual studies, understood as an 'interdiscipline' (Mitchell 2005, 356): a field of encounter that brings together insights from various existing disciplines dealing with visuality, such as art history, communication, film and media studies (Moriarty and Barbatsis 2005). The central aim is to explore and understand political image operations in their complex oscillations between physical, virtual and mental worlds, between clear purposes and unintended effects. The guiding questions can be broadly divided into three categories:

(1) *Empirical questions* are concerned with the observation, description and explanation of concrete phenomena: how are specific images used in current

- contexts of war, insurgency and political activism? Who or what is operating: what persons, institutions, mediums and images? Which features are central to the image? Who is using it, and why? How is it entangled in multimodal texts and discourses, inter-visual relations, representational chains and political contexts? How are potentials of certain media involved, for instance mobile media or Internet platforms? What actual consequences and effects do the operations have?
- (2) Theoretical questions aim at more general insights: what exactly are image operations, and what kinds of operations can be discerned? How do they develop? What are the general structures of the causal networks that give rise to them? Can images themselves be considered agents? What is their specific power? What do the different fields and kinds of image operations have in common, and what is specific to them? How have the uses of images changed over time, and how will they change in the future?
- (3) Ethical questions involve various normative and practical concerns: how and according to what criteria can image operations be evaluated and criticised from an ethical point of view? How should we (the public) deal with the visibility or invisibility of violence, injustice, suffering and death? How can images be used to call attention to problems and to foster understanding and compassion without violating the dignity of the victims?

Particularly within areas of political conflict, ethical dilemmas are paramount. In war and counterinsurgency, we are confronted with manipulated, sometimes lying and sometimes blatantly misleading images; with the visual guidance of drones facilitating deadly strikes and leading to massive 'collateral damage'; with images of extreme violence that are also seen by children. In the field of insurgency, showing terror images in the mass media makes the attackers effective in the first place, fulfilling their goal of getting attention and spreading fear. Sometimes their public circulation may also violate the dignity of the victims. One of the biggest problems in political activism is that images of ongoing suffering and injustice in certain areas are lacking, and as a consequence there is little public help and support. Yet too many or the wrong kinds of images may also contribute to compassion fatigue. Moreover, in all three fields - war, insurgency and activism - images often oversimplify the complexities and systemic causes of a political situation. Others are polysemous and ambiguous, open to manipulation, agitation and controversial interpretations. Furthermore, a new strand of ethical questions is arising: how should we deal with images that are no longer made and interpreted by humans but by intelligent machines?

There are no easy answers to these questions, yet their consideration is none the less urgent. Several practical decisions, for example, had to be made as we finalised this book: which images should be shown and which should not? Which are necessary in order to understand the events in question, and which are redundant or even dangerous? In the case of the images discussed at the beginning of this Introduction, we have decided against their illustration. Each shows victims at

a desperate moment in their life. Exposing them further by displaying the images would seem to prolong their humiliation without adding to the debate that each event still requires. Not showing the images – sometimes not even watching them, as one might with good reason choose not to do, as in the case of the beheading videos issued as propaganda – does not mean not to reflect, think or talk about them. Moreover, there might come a time when memory has faded or new facts have come to light, when showing these images might again be necessary. Images are sometimes the only evidence of a crime committed and hence, just as in court cases, often indispensable for historical and critical discussions. There is no universal rule for showing or not showing images of this kind. Each image operation is different, and it matters, as the essays in this book demonstrate, not only how and where the image operation was set in motion, but also when and why it is discussed.

However, to be able to solve the difficult ethical and practical problems at stake, we first require answers to the sets of empirical and theoretical questions raised above. We need to understand what image operations are, how they are structured and how they actually develop in particular contemporary political conflicts. Even more fundamentally, a clarification of the concept of 'image' that is itself in operation in this book is required. Its use in our term 'image operations' opens up the opportunity to map relations and flows between different kinds of 'images', which according to W. J. T. Mitchell's taxonomy may be graphic (like still and moving pictures), optical (like mirrors), perceptual (like sensual impressions), mental (like ideas) or even verbal (like metaphors) (Mitchell 1987, 10). In this network of relations and flows between various kinds of images, our book focuses on visual pictures. Pictures in this narrower sense can be broadly understood as anything that visually represents or expresses something else without being written language. More specifically, pictures are alternatively defined as 'meaningful surfaces' (Flusser and Peternák 1988), as visual constellations made for the purpose of contemplation or communication (Doelker 2002, 187), as visual signs that convey meaning by isomorphic structures addressing perceptual faculties (Sachs-Hombach 2003, 95) or as visual formations used in common practices of showing (deixis), for instance in 'image games' (as a complement to Wittgenstein's 'language games') or 'image acts' (as a complement to Searle's 'speech acts') (Seja 2009; Bredekamp 2010; Schöttler 2013).

Most of the arguments presented in this volume do not depend on any of these alternative definitions, but the possible characteristics are helpful in outlining the field of phenomena and in raising awareness of new developments. They also contain indications with regard to the specific powers of still and moving images. Their potentials are described differently in philosophical, psychological and social-semiotic approaches (cf. Domke, Perlmutter, and Spratt 2002), but, provisionally, they may be grouped into at least three categories.

Firstly, images have *mimetic* potentials: many images, especially 'naturalistic' and photographic ones, resemble in relevant ways the objects, persons or events they represent. Their patterns of light, form, texture, colour and their

spatial relations, in moving images also motion and sound, are analogous to things or perceptions in reality (Anderson 1996; Grodal 1997, 19–38). This potential makes the understanding of images – on a very basic level – comparatively fast and easy, and endows them with considerable power. Detailed images representing people or locations can provide visible evidence or steer drones to their targets. In political blogs, television and press reports, images usually get more spontaneous attention than the verbal text or soundtrack that accompanies them. The apparent ease of their basic comprehension allows for their rapid spread across language borders. Moving images draw audiences into the motions of represented worlds, and still images invite close examinations of frozen moments.

Secondly, images have *symbolic* potentials: they compress large amounts of information onto a relatively small surface that is scanned at a glance, and copied, archived and transferred with small effort. Images condense complex, abstract information, for instance about political situations or values, as well as networks of subtle associations into concise visual forms which are immediately grasped and easily remembered in ways that often seem self-evident. In image operations, this potential can be used, for example, to visualise complicated issues and provide orientation (see Hankey and Tuszynski, this volume) or to create political icons (see Ghosh, this volume). But while images are semantically dense, they are also polysemous and often require additional verbal information (Sachs-Hombach 2003, 24). Therefore, political images are regularly reappropriated, recontextualised and reinterpreted in highly controversial ways (see Gregory, this volume).

Thirdly, images have specific aesthetic, sensual and affective potentials. This aspect has been discussed extensively by various authors and from different angles (Müller and Kappas 2011; Haußecker 2013; Eder forthcoming). In contrast to verbal communication, which evokes mostly processes of imagination, images offer concrete perceptions, specific aesthetic forms and visible expressions that often operate as rather immediate, strong triggers of spectators' affects and emotions. But they also contain intricate metaphorical forms anchored in bodily experience and complex emotional meanings and messages (Fahlenbrach 2010). These sensual and affective potentials are crucial for political images to make an impact on minds and memories, causing controversies and motivating spectators to move into action. These connections inform several contributions in this volume, especially those of Bishnupriya Ghosh, Jens Eder, Tom Holert and Nicholas Mirzoeff.

There is also, however, a fourth potential of images: their operational dimension. It comes to the fore in their *interactive* use in digital media. Examples include the surveillance facilities and computer simulations used by soldiers to steer drones or to train for battle (see Pantenburg, Lenoir and Caldwell, and Holert in this volume). Such images are changed by their users in real time, react to their actions, augment reality or simulate constant changes in the environment. They make it obvious that visual communication is not just a matter of transferring abstract meanings or aesthetic experience, but also a matter of bodily action.

Images are always fundamentally related to other things. The characteristics of and relations between images, pictures, objects and media have been usefully summarised by Mitchell as follows:

By 'image' I mean any likeness, figure, motif, or form that appears in some medium or other. By 'object' I mean the material support in or on which an image appears, or the material thing an image refers to or brings into view By 'medium' I mean the set of material practices that brings an image together with an object to produce a picture ... understood as complex assemblages of virtual, material, and symbolic elements. (Mitchell 2005, xiii)

The WikiLeaks video *Collateral Murder*, for instance, is a moving image that shows a helicopter attack on civilians (a real event as referential object). It appears on individual computer screens (material objects) as the result of an interplay between various media technologies and practices: the helicopter's analogue technology for recording the image, the military database accessible to the whistle-blower, the Internet as a communication network, the various digital devices and platforms allowing the WikiLeaks team to process and spread the image data and, finally, users' routers and computers all over the world.

Confusingly, however, images and pictures themselves are sometimes also referred to as media. The term 'media' has many different meanings (see Mock 2006). Even if it is confined to 'means of communication', it may refer to (a) semiotic forms or texts, including images; (b) material artefacts or technical devices of communication, including pictures or their material displays; and (c) social organisations, systems or dispositifs such as television and print journalism. Depending on the context, we speak of media sometimes in the second, but mostly in the third sense. On the basis of this understanding, we can say that images are encountered in many different media, such as photographs, comics, films, television programmes, video games and Internet platforms. Marie-Laure Ryan (Ryan 2005), Joshua Meyrowitz (Meyrowitz 2009) and others have emphasised that media differ with respect to their specific features, which in turn enable different forms of interacting and operating with images. Compare, for instance, print magazines and video platforms. The technical and organisational structures of these media are extremely different, and so are their semiotic modes, their conventions of production and reception, their communicative forms, their practices and use values. Printed magazines embed still images into written texts in a specific language; their authors are clearly identified, but it is difficult for the audience to 'talk back', to reuse or to share the images. In the newsroom, press photographs are carefully selected according to news values, aesthetic conventions, ethical norms and other pragmatic and economic considerations (see Gürsel, this volume). This set of practices is completely different from video platforms that circulate all kinds of user-generated videos across borders (see Gregory, this volume; Christensen, this volume).

As wide as the variety of images and their relations to media is, the range of operations that can be performed by (using) images is just as broad. As indicated above, images influence events in very different ways: they generate knowledge

that is acted upon, suggest actions by their affective or rhetorical force, and are directly used as practical tools. Being more or less public, they influence individuals, groups, or whole societies. All these various forms of impact may be exerted by the very same image circulating across different media and social spheres. Its repercussions lead to further emergent forms of causality, to effects of effects. Therefore, the causal field of image operations extends beyond the intentions of individual human agents who are 'doing things with pictures' (as in Kjørup 1974; cf. also Seja 2009; Schöttler 2013). Yet it also exceeds the immediate agency of images themselves (as in Bredekamp 2010). Three sites are crucial within this network of interactions: the image, its production and distribution, and its reception and appropriation (Rose 2012). Images are created and used in the cultural contexts of politics, art, journalism, science, commerce and private life (Müller and Kappas 2011), and their production and reception follow social constraints and conventions, identities and interests specific to their different contexts.

Research in media production (see Hesmondhalgh 2010; Hjarvard 2012) indicates how producers create, record, select, manipulate, show, distribute and leak images. In doing so, they use various media and attempt to achieve such goals as representing, illustrating, entertaining, distracting, directing attention, protesting, providing evidence, explaining facts, simulating real-world actions, creating imaginary worlds, symbolising the non-perceptible, changing modes of perception, evoking affects and mobilising action. In political conflict, images are produced and used by the military, governments, corporations, NGOs, insurgent groups and individual witnesses. Their actions range from what computer science has termed *image operations* – the technical rendering of images – to military *information operations* defined as

the integrated employment of electronic warfare (EW), computer network operations (CNO), psychological operations (PSYOP), military deception (MILDEC), and operations security (OPSEC) ... to influence, disrupt, corrupt or usurp adversarial human and automated decision making while protecting our own. (Chairman of the Joint Chiefs of Staff 2014)

Several contributions in this volume consider the kinds of image operations in production. For instance, Bishnupriya Ghosh and Stephanie Hankey and Marek Tuszynski discuss the image work of activists; Zeynep Gürsel investigates conventions of photojournalism; Verena Straub analyses visual practices of suicide bombers; and Tom Holert examines military imagery, which is also the focus of Volker Pantenburg's chapter on Harun Farocki's work as an artist.

On the site of *reception and usage*, however, audiences are not passive either (Nightingale 2011; Bruhn Jensen 2012). Viewers perform various operations: they look for and look at images; they interpret, store, sort, share, spread, compare and comment on them. They contemplate and learn from images, adore them as fetishes or icons, fight them in acts of iconoclasm, interact with digital images and transform them, thereby becoming producers. Often, the images travel across social spheres, and discrepancies between their environments spark an unexpected

dynamic: a military video may be leaked to the public by whistle-blowers, a painting created in the art world may be embedded in television news, a picture of Muhammad produced in a secular context may trigger anger in Islamic countries. In this volume, operations at the site of image reception and appropriation are examined by W. J. T. Mitchell, Christian Christensen, Charlotte Klonk and Sam Gregory.

All contributions, however, acknowledge that image operations are not confined to the sites of production and reception alone. There are not only operations on images, with images and through images, but also operations by images. As stated earlier, it is theoretically productive to think of images as agents, as having a life of their own, a specific momentum and dynamic, making certain operations possible in the first place, while shaping and constraining others. The visual image is both 'instrument and agency: the image as a tool for manipulation on the one hand, and as an apparently autonomous source of its own purposes and meanings on the other' (Mitchell 2005, 351). Considered from this perspective, images not only trigger certain physical and mental processes of perception and reaction in their spectators; they also function 'as "go-betweens" in social transactions' (351) and contribute to the 'visual construction of the social field' (345). They influence the development of social discourses, the distribution of knowledge and power and the formation of social organisations. All in all, they set agendas, establish para-social relationships, form identities, cultivate collective beliefs and stereotypes, mobilise political movements and effect people physically.

Image operations: an interdisciplinary project

Image operations as defined above constitute a fairly new subject of research. Although it lies at the intersection of some major fields of study (Moriarty and Barbatsis 2005), research has been rather scarce and scattered across several disciplines. This situation is currently changing, however, and the following can only provide a tentative survey of a rapidly growing field.

Within art history and visual studies, Nicholas Mirzoeff was among the first to lay the groundwork for research on contemporary political imagery (Mirzoeff 1999), followed, among others, by O. K. Werckmeister (Werckmeister 2005) with an investigation of images after 9/11, Manon Slome and Joshua Simon on the 'aesthetics of terror' (Slome and Simon 2009), Horst Bredekamp on image acts from ancient times to today's warfare (Bredekamp 2010), W. J. T. Mitchell on the metaphorical force of images before and after 9/11 (Mitchell 2011), Dora Apel on their contemporary impact and influence in warfare (Apel 2012) and Gerhard Paul on the role and function of media icons in the twentieth and twenty-first centuries (Paul 2013) (see also Elkins in this volume).

Research in film studies builds on sophisticated methods of audiovisual analysis (e.g. Bordwell and Thompson 2008) and on a tradition of analysing political documentaries (e.g. Chanan 2007; Nichols 2010) as well as cinematic operations

in times of war and conflict (e.g. Chapman 2008; Kappelhoff *et al.* 2014). Yet only hesitantly have researchers begun to engage with other audiovisual forms like web videos. Media and cultural studies cover a broader field. Since Stuart Hall's classic study on news photographs in conflict (Hall 1981) and Paul Virilio's early book on the relations between media and war (Virilio 1989), scholars have turned to the question of how war and insurgency are staged as media spectacles (e.g. Giroux 2007; Graitl 2011; Kellner 2012) and have examined the visual strategies of political activism (e.g. Fahlenbrach, Sivertsen and Werenskjold 2014). Several take a critical perspective (e.g. Ludes, Nöth and Fahlenbrach 2014) or consider the ethics of images (e.g. Chouliaraki and Blaagaard 2013). Bishnupriya Ghosh has laid the theoretical foundations for understanding iconic figures as social influences (Ghosh 2011), whereas others have studied icons from a semiotic perspective (Cambre 2015). Recently, authors have begun to examine 'camerawitnessing' and other visual practices in social networks and mobile media (e.g. Andén-Papadopoulos 2014).

Although political communication is a central research area of the social sciences (Schulz 2008), there has been a considerable reluctance to address the role of images. Many studies investigate political image production in relation to censorship, representations of violence or the quantitative distribution of pictures in the mass media (e.g. Al Jabiri et al. 2011; De Franco 2012; Wolfsfeld 1997). Yet these studies usually do not pay much attention to the form or force of images. A more recent strand of research, however, integrates interdisciplinary perspectives on visual communication, drawing on art history and media studies (see Müller 2007; Griffin 2008; Geise 2011; Lobinger 2012). Researchers have examined images of death in the news (Zelizer 2010), pictures in crisis reports (Knieper and Müller 2005; Grittmann, Neverla and Ammann 2008), uses of terror images (Beuthner et al. 2003; Haußecker 2013), iconic images in conflict (Perlmutter 1998; Hariman and Lucaites 2007) and repercussions of the infamous Abu Ghraib photographs (Binder 2013). Some publications are also mandated by government authorities. The German Federal Office of Criminal Investigation, for example, co-financed a study on the 'psychological effects of right-wing and Islamic extremist Internet videos' (Rieger, Frischlich and Bente 2013).

In political science, Roland Bleiker detected an 'aesthetic turn' at the beginning of the twenty-first century (Bleiker 2001). Since then, political scientists have examined 'images of security' in international relations (Croft 2006) as well as connections between images, media and war (e.g. Hoskins and O'Loughlin 2010). Recent studies of the 'image politics' in the Middle East (Khatib 2012) or the 'image warfare in the war on terror' (Roger 2013) have investigated visual conflicts on the Internet and in social media.

With a few exceptions (e.g. Nathanson and Zuev 2013), work in sociology has so far focused on the visualisation of conflict in the news (see Parry 2010) and on the uses of images in social movements and political activism (see Doerr, Mattoni and Teune 2015). Moreover, political activists themselves have been crucial in

the reflection of their own image operations (e.g. Gregory *et al.* 2005). By including them in this book, we follow in the footsteps of Meg McLagan and Yates McKee's excellent interdisciplinary volume *Sensible Politics: The Visual Culture of Nongovernmental Activism* (McLagan and McKee 2012).

Generally, it can be said that until recently research has concentrated on a few select areas, predominantly on public images in the news, in propaganda and persuasion, in political art and in social movements. Only a small number of authors have so far examined image operations in other areas like the military and even fewer have altogether taken cross-disciplinary perspectives. Scholars in the humanities have rarely analysed factual image operations in political conflicts and have tended to focus on exemplary images, their form and cultural context. The social sciences, in contrast, have by and large examined social practices of image usage, yet neglected the aesthetic force of visuals. Moreover, different disciplines tend to focus on different nodes of the agential networks: art history and film studies emphasise the intrinsic power of images, whereas media studies points to the importance of media and the social sciences stress the agency of human actors and institutions. This book is an attempt to bring the different disciplines and discussions together. Each contributes in specific ways to the complexity of understanding image operations in war, insurgency and activism. Although the different approaches are consciously maintained within this volume, as they meet they complement each other and a broader picture emerges.

The first part of the book addresses different levels of image operations ranging from metaphorical usage in world politics to everyday practices of arranging pictures on a desktop or refrigerator door. Investigating the connection between images and political thought, Ben O'Loughlin discusses the role of recurring conceptual metaphors such as family kinship and the moving body in international politics. He argues that 'the practice of international relations is the enactment and realisation of a few images, and asks how we can, if at all, escape them. It is important, he emphasises, that we attend to the way in which these images are mediated in the news. By conducting fieldwork among image brokers in New York, Istanbul and elsewhere, Zeynep Gürsel pursued precisely this question. She demonstrates that the way in which political conflicts are configured in the minds of the decision-makers informs their choices of images even when the subject at stake is not directly related to those conflicts. Moreover, her examples show how the image selection process in turn reinforces certain world views and not others. Volker Pantenburg shifts the focus from such deliberate human acts to 'operational images' processed by machines. He discusses the work of filmmaker and video artist Harun Farocki, who scrutinised operational images in film series like Eye/Machine (2000–3). Building on Farocki's work, Pantenburg distinguishes between three senses of 'operationality': images serve as elements of purely automatic processes, as interfaces to operate machines and as triggers of human action. In contrast to such 'cold' functions of images, Jens Eder explores their 'hot' affective power. In particular, he looks at image operations that mobilise political actions by evoking intense emotions in their audiences. Drawing on research from media

studies and the social sciences, he suggests a theoretical framework for analysing such affective operations and illustrates it with case studies of political videos on the Internet. Finally, W. J. T. Mitchell reflects on everyday and scholarly image operations that lie behind the production of knowledge. Taking Aby Warburg's project of a universal iconology as a starting point, he claims that the accretion of images, found on refrigerator doors as well as on the desktops of scholars preparing a talk, may generate either a grid of orderly associations or a vertiginous vortex of symptomatic traces. He concludes that the line between scientific certainty and conjectural knowledge is thin and always in danger of dissolution.

The second part of the book is concerned with specific image operations in warfare, insurgency and counterinsurgency. Timothy Lenoir and Luke Caldwell examine how human agency and control is refracted and distributed in new image technologies developed by the military. Video games for recruitment, cyberwar interfaces, battlefield simulations and pilots' helmet-mounted displays tie human actors into visual networked environments that take on an agency of their own, merging the actual and the virtual. Tom Holert continues this discussion by analysing the development of networked remote sensory devices and drones in the military. He argues that, in the absence of imagery showing them in operation, we should take the promotional visualisations of drones seriously. Analysing the iconography of publicised images, he comes to the conclusion that the fetishised vision of clean warfare requires counteractions, such as the #NotABugSplat campaign. Christian Christensen's contribution also concentrates on military and countermilitary imagery, but focuses on new visual practices that emerge on video-sharing platforms on the Internet. Comparing the use of YouTube by US soldiers in Iraq and Afghanistan with the circulation of the WikiLeaks video Collateral Murder in the public domain after 2010, he demonstrates that for all of the images available on YouTube, 'virtually none have led to a substantive debate on the nature of the US/UK intervention in Iraq, because they have by and large been ignored by the mainstream media. Charlotte Klonk then turns to images of acts of terror and provides an overview of the pictorial norms that have governed their reporting in Western media since the late nineteenth century. In view of the recent proliferation of amateur videos in the wake of an attack, she considers the ethical implications of such images and argues that we need to distinguish between images that need to be seen and those that should actively be resisted. Verena Straub continues the discussion of images related to acts of terror by analysing videotaped testimonies of suicide bombers. She argues that they function simultaneously as a death sentence and as an opportunity for the assassins to manufacture a new identity as immortal martyrs. By focusing in particular on the testimonies of Palestinian female suicide bombers, she shows that in the light of the heterogeneous image of the female martyr that emerges from them, we need to revise Western views of Muslim womanhood. Ariella Azoulay concludes this part by revising received notions of the archive and the image operations that they allow or disallow. By insisting on her right to access and make public photographs in the archive of the International Committee of the Red Cross in Geneva, she herself performed an image operation that resisted the obliteration of violent displacement.

Stephanie Hankey and Marek Tuszynski's contribution opens the third part, on image activism and political movements. They look at how artists and activists from different countries are utilising various digital technologies to create, spread, compare and analyse still and moving images in order to investigate political conflicts. Although these image operations do not solve problems, they succeed, the authors argue, in posing new questions and opening up new possibilities for image activism. As Sam Gregory, however, makes clear in his contribution, authenticity is an important issue when it comes to activists' reporting of human rights violations. By concentrating on shared videos from Syria, Egypt, Burma and the United States, he alerts us to the dangers of distant witnessing and argues that the ethical implications of live reporting cannot be overestimated. Bishnupriya Ghosh draws our attention to another kind of image mobilisation that works more directly by way of the body. Focusing on Irom Sharmila, an iconic hunger striker protesting against human rights violations in Manipur, she argues that the formation of popular movements against governmental violence relies fundamentally on the production of 'bio-icons' and their images. Drawing on Charles Sanders Peirce, Marie-José Mondzain and others, Ghosh makes the point that at the centre of such mobilisation lies a particular kind of visuality that cannot be disassociated from the bodies of subjects and observers. Nicholas Mirzoeff rounds off this part by providing a historical overview of what he calls the 'visual commons' of photography – a way to resist hegemonic vision. From the first use of photography in the Americas in 1832 to the Occupy Wall Street movement, the right to look and the right to be seen must, he argues, be asserted and actively claimed. Finally, James Elkins provides an afterthought to the contributions in this volume, concentrating on five issues: the development of a research agenda; the relation between politics and aesthetics; the interconnections between images and operations; the specific role of visuality; and the awareness of conflicting perspectives on political images.

In its entirety this book aims to lay the groundwork for future research on image operations in contemporary political life. Balancing theoretical reflections and concrete case studies from different disciplinary perspectives, an attempt has been made to give due attention to both the images themselves and their practical, social, cultural, and medial environments. Our hope is that this book will stimulate an interdisciplinary exchange about crucial aspects of visual cultures and contribute to a critical understanding of how images operate in war, insurgency and political protest.

References

Adams, Richard. 2010. 'Wikileaks: Reaction to the Collateral Murder Video.' Blog entry. *The Guardian*. Accessed 23 December 2014. www.theguardian.com/world/richard-adams-blog/2010/apr/08/wikileaks-collateral-murder-video-iraq.

- Al Jabiri, Ishtar, Jürgen Gerhards, Mike S. Schäfer and Juliane Seifert. 2011. Terrorismus im Fernsehen: Formate, Inhalte und Emotionen in westlichen und arabischen Sendern. Wiesbaden: VS.
- Andén-Papadopoulos, Kari. 2014. 'Citizen Camera-Witnessing: Crisis Testimony in the Age of "Mediated Mass Self-Communication". New Media and Society May 1: 117–33.
- Anderson, Joseph. 1996. *The Reality of Illusion: An Ecological Approach to Cognitive Film Theory*. Carbondale: Southern Illinois University Press.
- Apel, Dora. 2012. War Culture and the Contest of Images. New Brunswick, NJ: Rutgers University Press.
- Azoulay, Ariella. 2008. The Civil Contract of Photography. New York: Zone Books.
- Barnhurst, Kevin G. 1994. Seeing the Newspaper. New York: St. Martin's.
- Becker, Olivia. 2014. 'ISIS Has a Really Slick and Sophisticated Media Department'. *Vice News*, 12 July 2014. Accessed 14 June 2016. https://news.vice.com/article/isis-has-a-really-slick-and-sophisticated-media-department.
- Beuthner, Michael, Joachim Buttler, Sandra Fröhlich, Irene Neverla and Stephan A. Weichert, eds. 2003. *Bilder des Terrors Terror der Bilder?* Cologne: von Halem.
- Binder, Werner. 2013. Abu Ghraib und die Folgen. Bielefeld: transcript.
- Bleiker, Roland. 2001. 'The Aesthetic Turn in International Political Theory'. *Millennium Journal of International Studies* 30: 509–53.
- Bolt, Neville. 2012. *The Violent Image: Insurgent Propaganda and the New Revolutionaries*. New York: Columbia University Press.
- Bolter, Jay David, and Richard Grusin. 1999. Remediation: Understanding New Media. Cambridge, MA: MIT Press.
- Bordwell, David, and Kristin Thompson. 2008. Film Art: An Introduction, 8th edition. New York: McGraw-Hill.
- Bredekamp, Horst. 2010. Theorie des Bildakts. Frankfurt am Main: Suhrkamp.
- Bruhn Jensen, Klaus. 2012. 'Media Reception: Qualitative Traditions.' In *A Handbook of Media and Communication Research: Qualitative and Quantitative Methodologies*, 2nd edition, edited by Klaus Bruhn Jensen, 171–85. London: Routledge.
- Butler, Judith. 2010. 'Torture and the Ethics of Photography: Thinking with Sontag.' In Frames of War: When Is Life Grievable?, 63–100. London: Verso.
- Cambre, Maria-Carolina. 2015. *The Semiotics of Che Guevara: Affective Gateways*. London: Bloomsbury Academic.
- Chairman of the Joint Chiefs of Staff, ed. 2014. *Joint Publication 3–13: Information Operations*. Accessed 28 December 2014. www.dtic.mil/doctrine/new_pubs/jp3_13.pdf. Chanan, Michael. 2007. *Politics of Documentary*. London: BFI.
- Chapman, James. 2008. War and Film. London: Reaktion.
- Chen, Adrian. 2014. 'The Laborers Who Keep Dick Pics and Beheadings Out of Your Facebook Feed.' Wired, 23 October 2014. Accessed 14 June 2014. www.wired.com/2014/10/content-moderation/.
- Chouliaraki, Lilie, and Bolette B. Blaagaard, eds. 2013. *The Ethics of Images*. Special Issue of *Visual Communication* 12(3).
- Cottee, Simon. 2014. 'The Pornography of Jihadism.' *The Atlantic*, 12 September 2014. Accessed 26 February 2015. http://m.theatlantic.com/international/archive/2014/09/isis-jihadist-propaganda-videos-porn/380117/.
- Cottle, Simon. 2006. Mediatized Conflict: Developments in Media and Conflict Studies. Maidenhead; New York: Open University Press.

- Croft, Stuart. 2006. 'Images and Imaginings of Security'. *International Relations* 20(4): 387–91. De Franco, Chiara. 2012. *Media Power and the Transformation of War*. New York: Palgrave Macmillan.
- Doelker, Christian. 2002. Ein Bild ist mehr als ein Bild: Visuelle Kompetenz in der Multimedia-Gesellschaft. Stuttgart: Klett-Cotta.
- Doerr, Nicole, Alice Mattoni and Simon Teune. 2015. 'Toward a Visual Analysis of Social Movements, Conflict, and Political Mobilization.' *Advances in the Visual Analysis of Social Movements* 35: xi–xxvi. Published online: http://dx.doi.org/10.1108/S0163-786X(2013)0000035004.
- Domke, David, David Perlmutter and Meg Spratt. 2002. 'The Primes of our Times? An Examination of the "Power" of Visual Images.' *Journalism* 3(2): 131–59.
- Eder, Jens. Forthcoming. Affekt und Emotion in audiovisuellen Medien. Marburg: Schüren.
- Eskjær, Mikkel Fugl, Stig Hjarvard and Mette Mortensen, eds. 2015. *The Dynamics of Mediatized Conflicts*. New York: Peter Lang.
- Fahlenbrach, Kathrin. 2010. Audiovisuelle Metaphern: Zur Körper- und Affektästhetik in Film und Fernsehen. Marburg: Schüren.
- Fahlenbrach, Kathrin, Erling Sivertsen and Rolf Werenskjold, eds. 2014. *Media and Revolt: Strategies and Performances from the 1960s to the Present.* New York: Berghahn.
- Flusser, Vilém, and Miklós Peternák. 1988. 'Vilém Flusser interviewed by Miklós Peternák I.' *Intersubjectivity: Media Metaphors, Play and Provocation.* Accessed 27 December 2014. www.c3.hu/events/97/flusser/participantstext/miklos-interview.html.
- Foucault, Michel. 1966. Les mots et les choses. Paris: Gallimard.
- Geise, Stephanie. 2011. Vision That Matters: Die Funktions- und Wirkungslogik visueller politischer Kommunikation am Beispiel des Wahlplakats. Wiesbaden: Springer.
- Ghosh, Bishnupriya. 2011. *Global Icons: Apertures to the Popular*. Durham, NC: Duke University Press.
- Giroux, Henry A. 2007. 'Beyond the Spectacle of Terrorism: Rethinking Politics in the Society of the Image.' Situations: Project of the Radical Imagination 2: 17–51.
- Graitl, Lorenz. 2011. Sterben als Spektakel. Berlin: Springer Verlag.
- Grau, Oliver, and Thomas Veigl, eds. 2011. *Imagery in the 21st Century*. Cambridge, MA: MIT Press.
- Gregory, Sam, Gillian Caldwell, Ronit Avni and Thomas Harding, eds. 2005. Video for Change: A Guide for Advocacy and Activism. London: Pluto Press.
- Griffin, Michael. 2008. 'Visual Communication.' In *International Encyclopedia of Communication*, vol. 11, edited by Wolfgang Donsbach, 5304–16. Oxford: Blackwell.
- Grittmann, Elke, Irene Neverla and Ilona Ammann. 2008. 'Ikonen der Kriegs- und Krisenfotografie.' In *Global, lokal, digital Fotojournalismus heute*, edited by Elke Grittmann, Irene Neverla and Ilona Ammann, 296–325. Cologne: von Halem.
- Grodal, Torben. 1997. Moving Pictures: A New Theory of Film Genres, Feelings, and Cognition. Oxford: Oxford University Press.
- Hariman, Robert, and John Louis Lucaites. 2007. No Caption Needed: Iconic Photographs, Public Culture, and Liberal Democracy. Chicago: University of Chicago Press.
- Hall, Stuart. 1981. 'The Determination of News Photographs'. In *The Manufacture of News: Social Problems, Deviance and the Mass Media*, edited by Stanley Cohen and Jock Young, 227–43. London: Constable.
- Haußecker, Nicole. 2013. Terrorismusberichterstattung in Fernsehnachrichten: Visuelles Framing und emotionale Reaktionen. Baden-Baden: Nomos.

- Heidelberg Institute for International Conflict Research (HIIK), ed. 2014. Conflict Barometer 2013. Accessed 26 February 2015. http://hiik.de/de/downloads/data/downloads_2013/ConflictBarometer2013.pdf.
- Hesmondhalgh, David. 2010. 'Media Industry Studies, Media Production Studies.' In *Media and Society*, 5th edition, edited by James Curran, 145–63. London: Arnold.
- Hjarvard, Stig. 2012. 'The Study of News Production.' In *A Handbook of Media and Communication Research*, 2nd edition, edited by Klaus Bruhn Jensen, 87–105. London: Routledge.
- Hoskins, Andrew, and Ben O'Loughlin. 2010. War and Media: The Emergence of Diffused War. Cambridge: Polity Press.
- Jenkins, Henry. 2006. Convergence Culture: Where Old and New Media Collide. New York: New York University Press.
- Kappelhoff, Hermann *et al.* 2014. 'Mobilization of Emotions in War Films.' Database. Accessed 28 February 2015. www.empirische-medienaesthetik.fu-berlin.de/en/emaex-system/affektdatenmatrix/index.html.
- Kellner, Douglas. 2012. Media Spectacle and Insurrection 2011: From the Arab Uprisings to Occupy Everywhere. London: Bloomsbury.
- Khatib, Lina. 2012. Image Politics in the Middle East: The Role of the Visual in Political Struggle. London: I.B. Tauris.
- Kjørup, Søren. 1974. 'George Inness and the Battle at Hastings, or Doing Things with Pictures.' *The Monist* 58(2): 216–35.
- Klonk, Charlotte. 2013. 'Macht der Bilder Attentate als Medienereignis.' *Aus Politik und Zeitgeschichte* 45(46): 30–9.
- Knieper, Thomas, and Marion G. Müller, eds. 2005. War Visions: Bildkommunikation und Krieg. Cologne: von Halem.
- Latour, Bruno. 1999. 'Circulating Reference: Sampling the Soil in the Amazon Forest.' In *Pandora's Hope: Essays on the Reality of Science Studies*, 24–79. Cambridge, MA: Harvard University Press.
- Linebaugh, Heather. 2013. '"I Worked on the US Drone Program: The Public Should Know What Really Goes On". *The Guardian*, 29 December 2013. Accessed 14 June 2014. www. theguardian.com/commentisfree/2013/dec/29/drones-us-military.
- Lobinger, Katharina. 2012. Visuelle Kommunikationsforschung: Medienbilder als Herausforderung für die Kommunikations- und Medienwissenschaft. Wiesbaden: Springer.
- Ludes, Peter, Winfried Nöth and Kathrin Fahlenbrach. 2014. 'Critical Visual Theory Introduction'. *tripleC* 12(1): 202–13.
- McLagan, Meg, and Yates McKee, eds. 2012. Sensible Politics: The Visual Culture of Nongovernmental Activism. New York: Zone Books.
- Meyrowitz, Joshua. 2009. 'Medium Theory.' In *The Sage Handbook of Media Processes and Effects*, edited by Robin L. Nabi and Mary Beth Oliver, 517–30. London: Sage.
- Mirzoeff, Nicholas. 1999. An Introduction to Visual Culture. London: Routledge.
- Mirzoeff, Nicholas. 2011. *The Right to Look: A Counterhistory of Visuality*. Durham, NC: Duke University Press.
- Mitchell, W. J. T. 1987. 'What Is an Image?' In *Iconology: Image, Text, Ideology*, 7–45. Chicago: University of Chicago Press.
- Mitchell, W. J. T. 2005. What Do Pictures Want? The Lives and Loves of Images. Chicago: University of Chicago Press.

- Mitchell, W. J. T. 2011. *Cloning Terror: The War of Images, 9/11 to the Present.* Chicago: University of Chicago Press.
- Mock, Thomas. 2006. 'Was ist ein Medium?' Publizistik 51(2): 183-200.
- Moriarty, Sandra, and Gretchen Barbatsis. 2005. 'Introduction.' In *Handbook of Visual Communication*, edited by Ken Smith, Sandra Moriarty, Gretchen Barbatsis and Keith Kenney, xi–xxii. Mahwah, NJ: Lawrence Erlbaum.
- Müller, Marion G. 2007. 'What is Visual Communication? Past and Future of an Emerging Field of Communication Research.' *Studies in Communication Sciences* 7(2): 7–34.
- Müller, Marion G., and Arvid Kappas. 2011. 'Visual Emotions Emotional Visuals: Emotions, Pathos Formulae, and Their Relevance for Communication Research.' In *The Routledge Handbook of Emotions and Mass Media*, edited by Katrin Döveling, Christian von Scheve and Elly A. Konijn, 310–31. London: Routledge.
- Nathansohn, Regev, and Denis Zuev, eds. 2013. Sociology of the Visual Sphere. New York: Routledge.
- Nichols, Bill. 2010. Engaging Cinema. London: W. W. Norton.
- Nightingale, Virginia, ed. 2011. *The Handbook of Media Audiences*. Hoboken, NJ: Wiley-Blackwell.
- O'Loughlin, Ben. 2011. 'Images as Weapons of War: Representation, Mediation and Interpretation.' *Review of International Studies* 37: 71–91.
- Parry, Katy. 2010. 'Media Visualisation of Conflict: Studying News Imagery in 21st Century Wars.' Sociology Compass 4(7): 417–29.
- Paul, Gerhard. 2013. BilderMacht: Studien zur Visual History des 20. und 21. Jahrhunderts. Göttingen: Wallstein.
- Perlmutter, David D. 1998. Photojournalism and Foreign Policy: Icons of Outrage in International Crises. Westport, CT: Praeger.
- Ratnesar, Romesh, and Elaine Shannon. 2002. 'The Martyrs' Home Movies.' *Time International*, South Pacific Edition, issue 3, 28 January, 24.
- Rieger, Diana, Lena Frischlich and Gary Bente. 2013. Propaganda 2.0: Psychological Effects of Right-Wing and Islamic Extremist Internet Videos. Cologne: Luchterhand.
- Roger, Nathan. 2013. *Image Warfare in the War on Terror*. New York: Palgrave MacMillan. Rose, Gillian. 2012. *Visual Methodologies*, 2nd edition. Thousand Oaks, CA: Sage.
- Ryan, Marie-Laure. 2005. 'Media and Narrative.' In *Routledge Encyclopedia of Narrative Theory*, edited by David Herman, Manfred Jahn and Marie-Laure Ryan, 288–92. London: Routledge.
- Sachs-Hombach, Klaus. 2003. Das Bild als kommunikatives Medium: Elemente einer allgemeinen Bildwissenschaft. Cologne: Halem.
- Schöttler, Tobias. 2013. 'Bildhandeln.' Glossar der Bildphilosophie. Accessed 23 November 2015. www.gib.uni-tuebingen.de/netzwerk/glossar/index.php?title=Bildhandeln.
- Schulz, Winfried. 2008. 'Political Communication.' In *The International Encyclopedia of Communication*, vol. 8, edited by Wolfgang Donsbach, 3671–82. Oxford: Blackwell.
- Seja, Silvia. 2009. Handlungstheorien des Bildes. Cologne: von Halem.
- Slome, Manon, and Joshua Simon, eds. 2009. The Aesthetics of Terror. New York: Charta.
- Sommer, Steffen. 2003. The Medium Is the Missile: Video als Mittel der globalen Kriegsführung. Münster: LIT.
- Sontag, Susan. 2003. Regarding the Pain of Others. New York: Farrar, Straus and Giroux. Virilio, Paul. 1989. War and Cinema: The Logistics of Perception. London: Verso.

22 Image operations

Werckmeister, Otto Karl. 2005. Der Medusa-Effekt: Politische Strategien seit dem 11. September 2001. Berlin: form und zweck.

Wolfsfeld, Gadi. 1997. Media and Political Conflict: News from the Middle East. Cambridge: Cambridge University Press.

Zelizer, Barbie. 2010. About to Die: How News Images Move the Public. Oxford: Oxford University Press.