Second edition

The Photographic Image in Digital Culture

Edited by Martin Lister

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THE PHOTOGRAPHIC IMAGE IN DIGITAL CULTURE

This new edition of *The Photographic Image in Digital Culture* explores the condition of photography after some 20 years of remediation and transformation by digital technology. Through ten specially commissioned essays, by some of the leading scholars in the field of contemporary photography studies, a range of key topics are discussed including:

- the meaning of software in the production of photographs
- the nature of networked photographs
- the screen as the site of photographic display
- the simulation of photography in the videogame
- photography, ubiquitous computing and technologies of ambient intelligence
- developments in vernacular photography and social media
- the photograph and the digital archive
- the curation and exhibition of the networked photograph
- the dominance of the image bank in commercial and advertising photography
- the complexities of citizen photojournalism.

A recurring theme addressed throughout is the nature of 'photography after photography' and the paradoxical nature of the medium in the twenty-first century; a time when the traditional technology of photography has become defunct while there is more 'photography' than ever.

This is an ideal book for students studying photography and digital media.

Martin Lister is Professor Emeritus in Visual Culture at the University of the West of England, Bristol. His recent publications include the co-authored second edition of *New Media: A Critical Introduction* (Routledge, 2009), 'The times of photography' in *Time, Media and Modernity* (Palgrave, 2012) and 'Overlooking, rarely looking, and not looking' in *Digital Snaps: The New Face of Photography* (I.B. Tauris, 2013). He is an editor of the journal *Photographies* published by Routledge.

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Second edition

Edited by Martin Lister

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1

INTRODUCTION

Martin Lister

The first edition of this book was published in 1995 as rapid and startling technological developments took place and the emergent implications of computation and digitisation for photography began to be glimpsed. Since that date the changes in photographic production, distribution and consumption to which the book first pointed have been enormous. For some contributors to this edition the changes are ontological, they strike at the very heart of what the photographic image is or is becoming (see Rubinstein and Sluis, this volume) while for others change, even if marked, is seen to take place within existing structures and continuities (see, for instance, Frosh and Murray, this volume). Over the same period, what constitutes digital culture has also changed. Commensurately, research and debate about the cultural meaning of digital photography, its significance for the historical practice of photography, the emergence of a 'post-photographic era' and subsequently a time of networked and computed photography, have been considerably elaborated. Further, dramatic changes have taken place that were unforeseen in the mid-nineties and hence found no mention in that first edition; not least the development from 2002 of the Web 2.0 with its user-generated and editable content, the spectacular growth from the mid 2000s of social network sites, the massive accumulation of personal, corporate and historical bodies of photographs in online databases and archives, and the mass availability and use, within the period, of an important hybrid communication device: the camera-phone. We have also witnessed new forms of photojournalism and shifts in the practices of snapshot and personal photography. In the same time frame, the distinction between the still and the moving image has become hard to secure, the chemical photograph has become an historical artefact and its traditional means of production have become all but unavailable. In the 17 years between the first and second edition of this book, there has been an explosion of new kinds of photographic practices, technologies and institutions that, alongside apparent continuities, have raised a range of new questions.

The first edition of this book was one of the first to use the term ‘digital culture’ in its title, and this too has changed since 1995. The first edition opened with an image of personal computers humming and blinking on desks in formal institutions. They are, of course, still to be found, but computers have also moved off desks and out of their beige boxes to be integrated into a range of embedded smart devices and closer to the fabric of everyday life, to be mobile, pervasive and ubiquitous. Rather than dramatic novelties, so called ‘new’ or ‘digital’ media technologies are now the stuff of habit, routine, everyday life and work. We have seen a shift in the terms we use to describe contemporary media with ‘digital’ and ‘new’ giving way to ‘networked’, ‘mobile’, ‘social’, ‘locative’ and ‘pervasive’ (see Kember, this volume). The politics of new communications technologies have shifted as the incorporation, institutionalisation, regulation and surveillance of global information systems presents a less utopian picture than some saw, perhaps naively, 17 years ago. There are fierce and relentless attempts to police and legislate over access and control of the information passing through and stored on the internet and the web. Forms of social media that once seemed best described in terms of their folksy grass roots and bottom-up organisation are now also recognised as ways of ‘monetising’ the labour of amateurs and selling it back to them. The vast server farms that feed the internet have become a major consumer of fossil fuels and the earth is scoured in a race to monopolise the rare metals essential in the fabrication of microelectronics. The once proclaimed light touch of digital technologies on the environment – the sustainability of the virtual (the paperless office!) in contrast to energy devouring and polluting real world industries – is appearing to be hubristic (Taffel 2012). The ‘loss of the real’ takes on a new meaning. This time, more than a semiotic equation is at stake; it is the real in the most material and physical sense that could be lost.

The first edition

If these are some of the main changes that have taken place with respect to the photographic image *and* with respect to digital culture in the period between the first and second editions of this book, it may be worth briefly revisiting the introduction to the first edition in order to gauge the difference between the questions that faced us then and those that face us now.

Looking back at the introductory essay in the first edition it is clear how much it was concerned with teasing out the continuities in the practice and culture of photography that ran across technological change and tempered the often hyperbolic terms in which it was conceived. It is also clear that it sought clarity and grounded argument amid wild and bewildering speculation. Noting the ‘startling’ and ‘dramatic’ technological changes in ‘the means of image production’ that had taken place from the end of the 1980s, it saw widespread critical chaos. This essay saw the sheer scale of the intellectual entities that clamoured for attention; a 'postphotographic age' was only one among hyperreality, virtuality, cyberspace, nano-technology, artificial intelligence and genetic engineering, and it warned that we faced a situation in which 'focused thought' could become impossible. The book intended to be 'a contribution to gaining such a focus'. It promised to eschew generalisation and abstraction to look instead at the concrete 'social sites of photographic production and consumption' (1995: 2) which, it suggested, were precisely the sites in which the new technologies of the image were being put to work. A key task that it set itself was to insist that the new discourses of the digital image should engage with the body of historical and theoretical knowledge about photography that we already possessed and to which they seemed blind (1995: 5). Rather than a caricature of photography set in a crude opposition to 'millenarian futurology', it called for a taking into account of 'a body of critical thought about nineteenth and twentieth-century technological forms of visual representation' (1995: 5). On this basis the introduction took issue with monolithic and essentialist conceptions of photography; it advocated instead, following Tagg (1988), the concept of 'photographies', which decentres the technology employed in the medium and foregrounds its plural social uses. It warned of an equivalent essentialism being applied to digital technology, and was highly critical of the view that digital photography simply broke the photograph's indexical connection to its referent and that a digital photograph was not (or could not be) indexical. This introductory essay reminded us that photographic representation was part of a wider Cartesian scopic regime that, far from being disrupted, was being engineered into the new image technologies, including digital cameras. It insisted on the hybrid nature of photography prior to its digital form by recalling its past relationships with other technologies: print, graphic, electronic, televisual and telegraphic. It saw the convergence between photography and digital media as an acceleration of this longer history, and insisted that analogue photographs were intertextual and polysemous and that these were not newly defining or distinguishing qualities of digital images.

I think that these points still stand. Indeed, they might be due for a little reinforcing. In short, where photography is concerned, analogue or digital, we should remember to keep its plurality or multiplicity of forms and uses in view; we should keep its indexicality within strict critical limits; we should be aware of the enormous weight of the representational conventions that it embodies while insisting on its (historical as well as current) hybridity and promiscuity with other technologies and practices.

The second edition: from image to network

Much has changed since these positions were formulated. When these arguments were made certain developments were yet to take place. As Daniel Palmer observes (this volume), in 1995 the World Wide Web was in its infancy with the first images having been uploaded in 1992, and its traffic in images was slow and cumbersome. What has become the 'networked' image was not an object of attention at that time. Interest was exercised at the level of the discrete image itself, and its newly acquired 'interactivity' in 'stand alone' forms of media storage, such as the CD Rom, and 'rich media' software such as Photoshop and Macromedia Director. Now, in 2013, attention has shifted from the digitally encoded image to the dispersed life of images online and to what is increasingly referred to (in the somewhat ominous and singular noun) as 'the network'; such that we now routinely affix 'networked' to 'digital image'.[1] The 'network image' has demanded new kinds of attention and it is this that most strongly marks out this second edition from the first, especially the perception of a new transience of the photographic image as it is assimilated to a global flow of data and information.

It is also true that the intellectual project of the first edition, with its confident tone of 'clearing the ground' and reinstating 'focus' by engaging 'the body of historical and theoretical knowledge about photography', has become less straightforward. The idea that the intellectual challenge was to use the history and theory of photography and media and cultural theory to qualify and inject some rigour into the wild discourses of the digital revolution no longer holds in quite the same way. Both digital photography and the World Wide Web were emergent in 1995. In this sense there was some equivalence between them; they were broadly coeval developments. Now, in 2013, the network and its institutions have grown enormously and have come, in many ways, to characterise the era we live in, while strange things have happened to photography. We now live with the paradox, expressed repeatedly but in different ways throughout the chapters of this edition, that 'photo-graphy', the technology about which there was so much anxiety in the 1990s, has all but ceased to exist, yet there has been an exponential increase in photographic images: there is more 'photography' than ever. As the network has come to constitute a second nature, photography has become harder to grasp.

In the period between the two editions there has also, I believe, been a growing awareness of the way that photography (perhaps, more specifically, the camera) has extended outwards from its traditional centre, to interface or become part of other technologies, practices and cultural forms, and this is a work in progress (see Kember, and Giddings, this volume). There is an awareness that '(d)igital photography is a complex technological network in the making rather than a single fixed technology' (Larsen 2008: 142) or that we should approach photography as a 'socio-technical object' (Gómez Cruz and Meyer 2012: 210). Traditionally, photography has been studied as one of a number of kinds of object, each in relative isolation: most frequently as a form of visual representation, but also as a technology of mass reproduction and hence sociological significance, or as an object of social and anthropological interest. Its study, particularly when situated in a philosophical milieu, has repeatedly taken the form of a search for its ontological essence; its true and singular nature. The concept of a 'socio-technical object' arose within Science and Technology Studies and, appropriately, in respect to the way photography has changed, it seeks to understand things as the product of networks of agencies. It acknowledges non-human as well as human agency and in doing so has enabled us to think beyond both technological determinism and the humanist restriction of agency and causality to only human intention and reason. Within Science and Technology Studies, and the version known as 'actor network theory', photography is understood as an always provisional outcome of a (possibly changing) alignment of factors, 'involving the creative presence of organic beings, technological devices and discursive codes, as well as people, in the fabrics of everyday living' (Whatmore 1999, quoted in Larsen 2008: 144).

Such a way of conceiving of photography, as hybrid and relational, as stabilising at moments in history, before changing again, also has implications for how we view how we may write its history (see Giddings, this volume). For instance, given our consciousness of the importance of the internet and the World Wide Web, Wi-Fi-equipped camera-phones and social media institutions such as Flickr to current photography, we are newly sensitised to a seldom mentioned aspect of photographic history: the postal service in the early twentieth century. Here a network of post offices, mail carriers (the internal combustion engine, the bicycle) and manual and mechanical sorting facilities were crucial to the viability of the Kodak system of snapshot photography even though the existence of this network owed nothing at all to 'any intention of supporting mass-market image creation' (Gómez Cruz and Meyer 2012: 210). It was an enabling alignment.

Photography as residual

The changes photography has undergone in the last two decades have created a degree of uncertainty about how we understand its contemporary status or condition. Indeed, that last phrase, 'contemporary status or condition', begs the question, is the photography we now have truly photography? Maybe it is photography, but photography by other (digital) means? If it is the latter, does this matter? Or, should we respect that 'photography' only makes sense as a now-displaced practice based uniquely on light and chemistry? In what sense does photography continue to exist? No doubt, these largely unanswered questions (we quickly tire of asking them, they become 'academic' and convoluted, and we move on – to make and consume) contribute to the way that photography is now frequently spoken about in paradoxical and quasi-supernatural terms. Photography appears to be everywhere and nowhere simultaneously. It is *everywhere* in that its ubiquity – so often noted with regard to its reach into every corner of life during the twentieth century – has become supercharged in the twenty-first as we struggle to comprehend mind-boggling statistics about digital photographic production, storage and display. If, in the 1970s, a pioneering curator of photography felt able to make the unverifiable observation that there were more photographs than there were bricks in the world (Szarkowski 1976, unpaginated), what analogy would serve us to characterise a time when 300 million photographs are uploaded daily to a single social network site (Murray, this volume) and a trillion JPEGs have been made (Palmer, this volume), and when, it is claimed, that in less than a decade the camera-phone has put more cameras in people's hands than in the whole history of photography? But, photography is *nowhere* in the sense that it has mutated or morphed; it is a shape shifter. It has become a ghost medium that haunts us. As Nina Lager Vestberg writes (in this volume) it is a medium that has died many deaths but refuses to die. We might say that photography exemplifies the state of the 'undead' that the OED concisely defines as something that is technically dead but still animate. This is a language (echoing throughout chapters in this volume) that strives to catch something of the powerful continuities in photographic conventions, and its uses and values, while acknowledging that, strictly speaking, the historic means of photographic production now hardly exist and are practically unobtainable. As Andrew Dewdney puts it (this volume), 'the photograph is now apparently produced without photography?' Yet, as Paul Frosh warns, even to talk of 'transformation' could be 'to speak the language of alchemy, of magical alteration' (this volume).

Nina Lager Vestberg (this volume) reminds us that there is another, less melodramatic, term that we might use to speak of photography's condition, one that has held an important place in cultural theory: this is the idea of the 'residual' cultural form. This is one term in Raymond Williams' dynamic, tri-partite characterisation of cultural forms, which, he suggests, always need to be thought of as either dominant, residual or emergent. He distinguishes the 'residual' from the merely 'archaic' with its simpler connotations of very old things: the embalmed products or practices of another time. The residual, he explains, 'has been effectively formed in the past, but is still active in the cultural process', it is not simply an element of a past age, as it remains 'an effective element in the present' (Williams 1977: 122). Photography as 'one of the great emblematic artefacts of modernity' (Tomlinson 2007: 73) was overwhelmingly dominant as a means of image production throughout much of the nineteenth and twentieth centuries and may now be thought of as residual in this way. It is a 'flexible territory where the past overlaps with the present' (Lager Vestberg, this volume). Formed in the past yet displaced in many ways, it continues to be a kind of force field that pulls and tugs at practices even as they change or, indeed, as part of *how* they change. This is certainly a concept that could help us understand why the history of analogue photography might still interest 'digital natives', the generation who have no lived experience of loading film and long hours in darkrooms. Analogue photography may have been formed in the past but it exerts its influence in the present.

Thinking of photography as a ghostly medium or a residual cultural practice resonates with yet another way in which photography is currently being understood: as a simulation or a simulacrum of the thing that it once was. Invisible simulation machines (the work of computer software and the agency of algorithms) produce what we take as photography. They make images that have all the appearance and hallmarks of photographs without using photography's historical and physical apparatus. Hence, it is argued, the theory of photography must be drawn into a theory of software and computation, as they are the agents that are responsible for the dissolution of all physical media while ensuring their continuation; this surely is the state that invites the talk of the 'undead' and its many versions. This will be taken up shortly, but before that we should recognise that the photographs that we meet in this 'continuation' are not identical to the products of the older, originary technology of optics, chemistry and mechanics.

Transient photographs

The methods and underpinning theories with which we have analysed or interpreted photographic images are no longer adequate for thinking about networked digital photographs. The kind of visual, textual or semiotic analysis that has dominated the theory of photography (and art history and visual cultural studies more generally) assumes that its objects of study are rich and complex artifacts attended to by viewers who scrutinise them with concentrated interest. They are grounded in conceptions of photography and its reception that assume framed, fixed and stable images viewed (or 'read') by equally centred and motivated viewers.

Remembering that there are plural photographies serves to remind us that there are enclaves of photographic images where such a paradigm is maintained. This is particularly the case where photographs are made and constituted as works of art, which become ever more monumental and spectacular as artifacts. Such images continue to attract the concentrated attention of art collectors and semiotically sophisticated art critics (see Dewdney in this volume). Indeed, an artist such as Thomas Ruff uses the gallery exhibit to draw the (concentrated) attention of the art-consuming public to the wider condition of the digital photographic image (see Palmer, this volume). An international festival of photojournalism, such as 'Visa: Pour L'Image' as is held annually in the city of Perpignan, testifies to the tenacity with which the historical documentary project of photography is held to in the face of overwhelming economic odds.[2] The 'slow photography' movement described by Susan Murray (this volume) speaks of a desire to return to a more deliberative practice, and is an example of where 'the residual' might just promise to return as 'the emergent' in Williams' terms (although he is wary of such tendencies and sets the bar very high for qualification as a genuinely emergent form). The question remains, as David Bate puts it (in this volume),

> How *do* we talk about the distinct institutional and discursive practices of fashion photography, news photography, advertising images, tourist iconography, public displays of private photographs, the specious genres of the pornographic image, tabloid and paparazzi photography, generic 'stock' images, art photographs or portraits of public figures all as simply 'digital photography'?

Indeed! Yet, as he suggests, 'digital' (or, as we meet in this book, 'algorithmic', 'simulated' photography or 'photography after photography') are abstractions for processes that have effects on all of these practices. This is important, because as Paul Frosh observes (in this volume and Frosh 2003: 195–97), digital technologies in the hands of the 'visual content industry' work to dismantle the discursive and organisational boundaries between even 'the three great photographic fields of art photography, advertising photography and documentary photojournalism'.

It is now the case that the vast generality of photographic images enter fibre optic and telecommunication networks as numeric data and are transmitted, stored, and shared in this coded form. Invisible to human beings but readable by machines (computers), these images only rarely, if at all, take the form or 'output' of a stable physical print. The most common way of viewing such networked images is on the light emitting screens of cameras, camera-phones, PDAs of various kinds and laptop computers. These, of course, can be switched on and off, hence such images have duration; a quality new to photographs (Nardelli 2012: 159–78). Many such screens will be interactive and the images they display can be moved, resized and reformatted by a tap or stroke of a finger. We may say, then, that it is in the nature of digital networked images to exist in a number of states that are potential rather than actual in a fixed and physical kind of way. Such images are fugitive and transient, they come and they go, they may endure for only short periods of time and in different places, maybe many places simultaneously. Characteristically they exist in multiples; as strings, threads, sets, grids (see Frosh's thoughts on the 'thumbnail', this volume). We anticipate that behind an image we have alighted on there is another waiting or there is one, seen earlier, to be returned to. Rather than absorbing us in a singular manner each image seems to nudge us toward another. They have a kind of mobility as we scroll across them, clicking one or another in and out of the foreground of the screen's shallow space. We pay attention to such photographs in different, more fleeting or distracted ways than the kind of viewer that is imagined by traditional theories of photography, embodied now as the minority audiences of gallery-installed prints. (For further consideration of this transient image in respect of photographic exhibition and display, see Andrew Dewdney, in commercial and advertising contexts see Paul Frosh and for the way that the value of images now lies in their very depiction of transient states, see Murray, all in this volume).

Photography, information and attention

This fugitive and transient networked photograph and its restless viewer (or user) is more than an aesthetic form. It is part of a larger reconfiguration of experience and mediation of the world by information technologies. We may see what is at stake here if we think about what is meant when we say that photographs have become information. This does not mean that there is a proliferation of images that carry information of the kind that we might once have taken a traditional documentary photograph to give us; as a report on a specific event, thing or situation. The different kind of information that photographs have become had been laying in wait for some time, at least since 1949 when a theory of information as the transmission of unambiguous signals in telecommunication systems was outlined in Shannon and Weaver's foundational 'A Mathematical Theory of Communication'.[3] By the early 1950s, such a theory began to be operational with regard to photographs as it became possible to scan and convert them into arrays of binary digits, and hence they became 'electronically processable digital information' (Mitchell 1992: 1) However, it was not until considerably later, in the early 2000s, that digital cameras supplied such 'processable' information automatically and fed it into the internet. The conversion of photography to information was complete: it became a default operation.

In his etymology of the word, Geoffrey Nunberg describes this kind of 'information' as a new kind of abstract, generic and intentional *substance* that is 'at large' in the world (Nunberg 1996: 110–11, see also Frosh 2003: 195–200). It can be moved around the world at high speed, it is a quantifiable, it is a commodity that can be traded in and it is separable from its instantiation in a medium (it is detachable from its substrates). As Bruno Latour (2004) wryly observes, this is information that can be weighed in kilobytes, that clogs email accounts and can make 'computers heat up'. The history of this release of information from the material substrates on which it was once inscribed has been described as the story of 'how information lost its body', a story that was not inevitable but was the product of selective research programmes (Hayles 1999: 22). Digital photography is part of that story; as a seamless analogue configuration bound to a physical surface is rendered into bits, having the physical form of electronic charges and the symbolic form of numbers. The chemical photograph, continuous tonal alterations to a field of silver salts carried on a physical and bounded substrate, became assimilated to a generic code. This, of course, is the kind of information indicated in a phrase like the 'information economy'.

There is a problem with the concept of such an information economy that arises with the vast scale of its production and includes digital photographic production that defeats comprehension as we count photographs and image files in their billions and trillions. The question has been asked as to what kind of economy this is: an economy that trades in a commodity of which there is an unmanageable and unimaginable excess. A key statement of the problem is Goldhaber's:

> (O)urs is not truly an information economy. By definition, economics is the study of how a society uses its scarce resources. … We are drowning in information, yet constantly increasing our generation of it. … There is something else that moves through the Net, flowing in the opposite direction from information, namely attention.
>
> *(Goldhaber 1997)*

This sense of the massive and continuing production of information (including, since the mid 1990s, the visual and the photographic) has a much longer history in an anxiety about 'information overload'. It was broached, albeit in different terms, with regard to photography, as early as 1926 by Siegried Kracauer in his essay on photography as 'mass ornament' (Kracauer 1995). In 1945, Vannevar Bush, the pioneering electrical engineer and information scientist, envisaged an interactive, networked machine utilising a mobile camera and a 'dry' form of photography that