

Moments of danger: photography, institutions and the history of the future

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This article was written by [Benedict Burbridge](#)

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Histories of photography

I received the invitation to deliver a paper as part of a panel about photography at the Science Museum Group's [SMG] inaugural research conference towards the end of 2015. A few months later, SMG announced its plans to give a significant part of the photography collection held at the National Science and Media Museum – one of the four institutions for which the umbrella group is responsible – to the Victoria & Albert Museum in London. What has proved to be a controversial decision will see 400,000 objects, originally the collection of the Royal Photographic Society, and now categorised as 'art photography', relocated from Bradford to London (['National Media Museum invest in science and technology', 2016](#)). The news came as a particular surprise given the enthusiasm for (art) photography SMG had displayed as recently as September 2013, when – with significant financial backing from Sir Richard Branson and film producer Michael Wilson, among others – *Media Space* opened at the Science Museum with the express purpose of showcasing Bradford's impressive photography holdings (['*Media Space – Major new Photography and Art Gallery*', 2013](#)).

The unfolding news about Bradford ensured that when the conference took place at the end of March 2016, the panel in which I participated spoke not only of photography, but also to its wider social, economic and institutional contexts. National Science and Media Museum Curator Colin Harding provided a sensitive account of photographer Percy Hennell, whom he identified as a significant figure in the histories of medicine, photography and portraiture. Hennell's extraordinary pictures of veterans following their treatment with plastic surgery frustrated straightforward disciplinary distinctions. Anthropologist Elizabeth Edwards examined cataloguing systems as acts of foreclosure, addressing some of the ways in which the imposition of

categories can work to limit an understanding of photography and the societies that produce it. Both papers took on particular poignancy against the backdrop of the SMG decision, within the context of the Science Museum's recently opened Dana research centre, and as a consequence of the speakers' direct involvement with building the photographic culture of the National Science and Media Museum.

Changes to the meanings of photography and their relationship to wider institutional contexts were at the heart of what I had to say then, and what I want to discuss again briefly now. In doing so, I offer a few thoughts on an exhibition I co-curated for *Media Space* and the National Science and Media Museum in 2015. *Revelations: Experiments in Photography* focused on the ways in which nineteenth-century scientific photography radically expanded the visual field and, particularly, the importance of that change for the work of a wide range of modern and contemporary artists. I start by mapping our thesis and the ways it informed decisions regarding the design and installation of the show, in order to reflect on the relationship between viewers' experience of the exhibition, the forms of knowledge we aimed to produce, and the larger, external factors that powered our project. This is intended to spark a wider analysis of the interplay between photography and history, the histories of photography, and the social, economic and institutional contexts that shape them. I am particularly interested in the politico-economic forces that appear to be driving important changes within the UK museum landscape, and the unexpected manner in which these have resonated with ideas at the core of the exhibition I curated.

Revelations was structured as a kind of constellation, through which we hoped ideas could encircle and enrich each other, wider contexts might activate latent concepts, and meanings could develop cumulatively. I try to do something similar in this essay, which – to be clear – does not provide a fully resolved, neatly delineated or self-contained argument. Instead, it represents an exploratory effort to make sense of something I cannot claim to understand entirely. That task appears to me to require a gentle rethinking of conventional academic writing. As the essay develops, I adopt an increasingly performative position within, not apart from, the subject discussed. I enact, as much as explain, the fundamentals of my (not-quite-an) argument. The exclusions and allusions this involves may, on one level, frustrate. But they may also possess the potential to allow text and readers to inhabit the experience of attempting to make sense of that most peculiar and unstable set of circumstances: the present.

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Revelations

Revelations: Experiments in Photography was a temporary exhibition that opened at *Media Space* in the Science Museum in March 2015 and travelled to the National Science and Media Museum in Bradford the following November. It set out to do two things, both expressed in plain terms in the accompanying publication I edited. Firstly, to identify 'the enormous influence of early scientific photography on modern and contemporary photographic art'. This required us to survey the ways in which 'nineteenth-century pioneers harnessed a tool to represent the astronomically distant and microscopically small, revealed the nuances of rapid motion, and lent form to invisible energy sources', along with the 'radically new set of forms and techniques' with which those experiments equipped photographic artists ([Burbridge, 2015](#)). Crucial parts of that project involved the identification of formal, iconographic and technological resemblances between photography's applications in nineteenth-century science and within modern and contemporary art. We highlighted links between the photomicrography of Fox-Talbot and art works by Carl Struwe and Joris Jansen, for instance; and underlined the importance of motion studies by Murbridge and Marey to projects by Hollis Frampton, Robert Cumming and Clare Strand. We mapped the importance of camera-less photography to the innovations of artists including Lazlo Moholy-Nagy, Berenice Abbott and Walead Beshty; and reflected on the ways in which celestial photography informed the work of Man Ray, Trevor Paglen and Sharon Harper. At various stages, we envisaged an exhibition that took this type of resemblance as its primary guiding principle, grouping together examples of art and science in much the same way outlined above: some photo-microscopy over here, some motion studies over there, some X-rays somewhere else. In the end, we opted against that model, based on two fairly fundamental concerns. It risked a postmodern flattening of art and science that, at best, would make a fairly obvious point about the relationship between photography, context and meaning. And we feared an emphasis on ontological and formal traits – *this is what photography is, this is what photography is good at representing* – also risked an inward looking formalism, unconcerned with photography's functions, its contexts, and its histories ([Crimp, 1982](#)).

Figure 1



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Revelations: Experiments in Photography exhibition at the National Media Museum,
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Figure 2



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Bradford

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Figure 3



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Our second stated goal was to explore ‘the meanings artists and curators have invested in the early experiments, and what their work exposes about changing popular perceptions of science and technology’ (Burbridge, 2015). That aim appended and changed the meaning of the first, casting the identification of visual similarities as a starting point rather than a conclusion; a means, not an end. We were interested in what science photography meant to artists and societies at different times and in different places and, in particular, what those cultural perspectives meant to each other. That approach was indebted to the work of the German philosopher Walter Benjamin, for whom history should be understood, not as an inevitable linear unfolding, but as a type of constellation: ‘a past charged with the time of now’ (Benjamin, 1940). Our approach was chronological but not teleological; an effort to allow the importance of the science photographs to unfold and build across the exhibition. We wanted to encourage audiences to forge visual and conceptual associations as they made their way from the examples of early scientific innovations in the first room, via *avant-garde* art of the twentieth century in the centre of the exhibition, to projects made by artists during the past ten years exhibited together in the final room. Repeated motifs, techniques and forms aided audiences through that journey: the surprising appearance of figures frozen in motion, for instance; the interplay of positive and negative images; or the quasi-abstraction achieved when the world is viewed through a microscope. But we also tried to maintain the physical and conceptual space necessary for additional and unexpected links to come into view. Our goal was to promote an active engagement with the manufacture of meaning, in an overarching structure that privileged the analysis of history over a reflection on form.

Figure 4



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Figure 5



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Figure 6



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We felt that approach was best suited to communicating our central thesis: namely, that when artists looked back to an earlier moment in photography's scientific histories, that glance was shaped by the social, cultural, political and economic contexts in which they worked. As Benjamin highlights, an image of the past is formed in the context of the present, both in terms of artists' immediate surroundings and the traces of earlier formulations of similar, past moments in previous, past presents (Benjamin, 1940). We were particularly interested in what the photographs had to tell us about shifting perceptions of the relationship between humanity and technology. The more we learnt about the artists who engaged with science photography, the clearer it became that the imagery provided more than a set of novel formal references or technical tools. New modes of technological vision took on an allegorical role as product, agent and emblem for a moment of extraordinary social and cultural change. The machine-produced images – most of them made between 1870 and 1900 – surpassed and exposed the limits of our own optical instrument, the eye. They also helped to establish bodies of knowledge that were applied to further scientific understanding and aid technological development. Cultural historian Stephen Kern links the early science photographs to a shift in the nature of experience and to the processes of understanding (Kern, 1983). Media theorist Scott McQuire discusses the pictures in terms of a 'transformation to the dimensions of life and thought' (McQuire, 1998). In order to understand precisely what that change *meant* in the context of the subsequent moments from which it was viewed, we looked to histories of science and technology and, above all else, to histories of their public reception.

Figure 7



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Allegories

I do not have the space necessary to revisit that history in full here. Neither is that necessary for my present purposes.^[1] Instead, it should be enough to outline its basic principles with reference to some key examples. Working at the Bauhaus in the 1920s, Lazlo Moholy-Nagy described a 'new vision' made available through science photography, which he believed to possess an important socio-political dimension. His work drew on the examples of X-ray, celestial photography and photomicrography to demonstrate new ways of seeing the world, with the express intention of shifting perceptions in ways necessary to build egalitarian societies ([Moholy-Nagy, 1925](#); [Kostelanetz, 1969](#)). The technological utopianism of that view was forged in the context of industrial Weimar Germany and the exhilaration of inter-war socialist experiments ([Hight, 1995](#)). It did not survive his emigration to the USA to flee the Nazis, news of mass technological killing, nor the horror inspired by the atomic bomb ([Moholy-Nagy, 1947](#)).

Figure 8



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The work of Moholy's Bauhaus associate Georgy Kepes, produced at MIT in the 1950s, conveyed a deep ambivalence about the place of technology in society. Abandoning Moholy's utopian politics, Kepes encouraged audiences to experience science photography aesthetically in an effort to find stable ground in a world rendered strange and unfamiliar by technology (Blakinger, 2014; Wechsler, 1978; Kepes, 1947). 'When we see, we interpret the world around us and orient ourselves within', Kepes explained, thus it was necessary to find 'patterns through which the poetry of form becomes meaningful' (1956). That project bears the imprint of wider debates taking place among leading intellectuals at the time. Lionel Trilling spoke about the limits of a scientific worldview 'incapable of making declarations about the qualities life does not have but should have' (Trilling, 2000). Max Horkeimer described a troubling shift, as reason – once seen as 'a spiritual power living in each man' – became a mere 'instrument to calculate the production and distribution of goods, bereft of the power to reflect on the human condition as such' (Horkeimer, 1947). Elements of those views were echoed in the introduction to Kepes' 1956 book *The New Landscape of Art and Science*: 'Our recently acquired knowledge, with all its precision and power, has brought us as much ugliness, discomfort and danger as it has sanity and order.' Science, Kepes argued, 'is only one component of the understanding that we need for a well-balanced attainment of human ends' (Kepes, 1956, p 20).

Figure 9



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Working at MIT eight years later, Berenice Abbott produced exquisite photographs illustrating the laws of physics (Kurtz, 2012). For Abbott, science needed, 'the vivification of the visual image, the warm human quality of imagination... It needs to speak to the people in terms they will understand' (Abbott, 1939). Viewed in relation to their wider contexts, the photographs speak both of a radical democratisation of science and mounting Cold War paranoia. Abbott's project received federal funding only after the Soviet Union launched Sputnik. The government's financial support was based on the need to train a new generation of engineers, capable of rivalling those of the Communists (Weismann, 2011; Durant, 2012). This established a complex, and perhaps irresolvable, tension between the demands of the US military-industrial complex and Abbotts' own anti-authoritarian goal of democratising scientific knowledge (Abbott, 1939).

Figure 10



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The contemporary art projects in the exhibition marked a further shift in tone. In the work of Trevor Paglen, viewers were shown the night sky not to revel in its beauty or to learn about the stars, but to note the presence of surveillance satellites and military drones (Paglen, 2010). Clare Strand's photographs presented ironic motion studies of a post-industrial workforce, typing emails, reading *Easy Living* catalogues, banging heads against brick walls (Drew, 2008). Walead Beshty's abstract-looking images were produced when unexposed film reacted with X-ray security scanners at airports. Sarah Pickering's large-scale photographs used the muzzle flash of a firing revolver to create an image, in ways designed to probe the thin line separating beauty from violence. Each, in its own way, gestured towards the instrumentalisation of earlier scientific discoveries as mechanisms of violence, surveillance and control. All took up the mounting ambivalence expressed by artists across the twentieth century as a conscious and overt theme.

Figure 11



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Painted in crude terms, the exhibition traced a growing uncertainty, as the emancipatory promise of the earlier twentieth century became blighted by a century of mechanised warfare, expanding technological surveillance and changes to the workplace. The narrative was developed by published responses to the show. One review discussed the importance of Benjamin's writings to the installation, and the constellations of images and ideas that developed across the exhibition. Another focused on the contemporary artists, 'sceptical about the relationship [between art and science]' and calling 'into question the positivist scientific ideology often touted as benign and progressive, but which has often proven in practice to be quite the opposite' (Bush, 2015). I witnessed a similar reaction among a group of MA Art History and Curating students. The exhibition was designed to ensure visitors had returned to the start to exit; forcing audiences to retrace the assembled history back to its nineteenth-century beginnings. The students felt relieved to be back in the company of the early scientific images and everything they seemed to promise. But their appeal had come to feel bitter-sweet now, given everything they knew had unfolded in the intervening years. When we installed the exhibition, my co-curator Greg Hobson assured me that, while viewers may not necessarily *think* about all we hoped to communicate, that didn't mean they wouldn't *feel* it. Exhibitions can utilise affective forms of engagement less readily available to histories produced using only the analytical tools of scholarly prose (Brown and Phu, 2014).

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Moments of danger

In a synergy I still find startling, Elizabeth Edwards' conference paper quoted the same passage from Benjamin's 'Philosophy of History' essay as my own: 'The past flashes up at a moment of danger' (Benjamin, 1940). The phrase has haunted me from the moment I read it, as an MA student years ago. Over time, I have come to understand it as a challenge laid down to anyone ordaining to make sense of the past, who must endeavour to comprehend their actions as implicated within, not outside of, the field they set out to survey. I am still coming to terms with what that means for *Revelations*.

How was our project the product of the history it brought into view and the circumstances from which we viewed it? In one of the essays I wrote for the exhibition book, and a paper I gave at the conference organised to coincide with the closing of the show, I concluded that our bleak endpoint had something to do with the claims being made for ubiquitous networked technologies. The exhibition, I suggested, placed two moments of space-time compression in dialogue, thinking through a so-called 'digital revolution' in relation to earlier experiences of industrial modernity. As Mark Andrejevic has suggested, the type of emancipatory politics attached to earlier *avant-garde* projects has been recycled by a corporate PR-machine, through talk of emancipated 'prosumers', global connectivity, and a new technological democracy (Andrejevic, 2011; Burbridge, 2015, pp 200–204). The effectiveness of those claims derives from the truth that, at one level, they contain. But the realities of extensive surveillance, extraordinary inequality and the drive towards a culture of 24/7 labour raise profound and difficult questions about their uncritical acceptance (Crary, 2013; Harvey, 2005; Andrejevic, 2011).

The politics of an earlier *avant-garde*, I thought, had been reshaped as a hollow futurism, dreamt up by advertisers to serve the interests of the multi-national corporations that own, survey and profit from the networks the rest of us are told to worship (Burbridge 2015). The fact the earlier scientific images had 'flashed up' had something to do with the allegorical roles they had been assigned by artists and societies in the past. This had the capacity to cast new light on myths being spun around technology and progress in the present. The exhibition, I believed, had grown out of a similar impetus to the contemporary art projects gathered together in the final room. While I still think this is probably true, events at the National Science and Media Museum have led me to suspect the diagnosis fell short; that something else – or, rather, something more – was at play.

Figure 12



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The new landscape

The institutional changes represent a dislocation, both for the lives of individuals affected and for a set of ideas, experiences

and knowledge. There is a loss for SMG and this should be acknowledged. With that said, I want to reflect on the importance of two related and significant gaps in the public discussion about the *meaning* of the move, in ways not entirely unrelated to my previous point. Vocal supporters of the decision explain it as a forward-looking step required for the Bradford museum to adopt a new STEM-based programme. In separate, published explanations, Jo Quinton-Tulloch, Director of the National Science and Media Museum, and Mary Archer, Chair of the SMG Trustees, highlighted what Quinton-Tulloch describes as an effort to ‘inspire future generations of scientists and engineers in Bradford’ ([Quinton-Tulloch, 2016](#); [Archer, 2016](#)).

Opponents have focused on what is being sacrificed to the change. The decision to relocate important sections of the collection to London has been taken by some as symptomatic of an increasing north/south divide, described by one Bradford councillor as an act of ‘cultural vandalism’. These critics argue that a move destined to strip a museum in Bradford of significant assets raises awkward questions for optimistic talk of a so-called ‘Northern Powerhouse’ ([Halliday and Jordison, 2016](#)). Freedom of Information requests have compounded the problem, revealing that SMG trustees only considered London-based museums as the potential recipients for the donation ([Pidd and Halliday, 2016](#)). Other opponents – including a group of ‘83 prominent figures in art, film and photography’ – have argued for the importance of a single integrated institutional history of photography, spanning the full variety of its applications and technological supports. The decision to separate ‘art’ from photography’s ‘applied’ histories, they explain, marks a backward step in our understanding of visual culture ([‘Opposition Grows’, 2016](#)).

The debate about Bradford has remained deeply polarized. Accusations are made and sometimes answered, but there are few signs that those who publicly oppose the move have engaged with the politics implicit within the arguments made in favour. An exclusive focus on the importance of what is being sacrificed has ensured that the cause to which the sacrifices are being made has evaded critical scrutiny. Neither the press nor a wider ‘photographic community’ have paid much notice to the forces that power the move and which may have provided a framework of legitimacy for the decision in the eyes of those who made it. Most people outside the Science Museum still know remarkably little about exactly what future generations of scientists and engineers in Bradford will be inspired to do or, most importantly, why SMG trustees believe that activity to be more desirable than those other activities potentially inspired by parts of the collection now on their way to London.

In repeated published statements, David Cameron’s Conservative government stressed the importance of STEM. For the former prime minister, it represented a vital ‘part of a long-term economic plan’ necessary for Britain ‘to win in the global race’ and for ‘children [to] compete and get the best jobs’ ([Coughlan, 2014](#)). Speaking in November 2014, former Education Secretary Nicky Morgan queried the importance of arts and humanities degrees in preparing students for industry, actively encouraging more 16–18 year olds to study STEM subjects if they want to secure future employment ([Garner, 2014](#)). At least in statements such as these, neither the former Prime Minister nor his Education Secretary demonstrate any interest in the *direct* social benefits of STEM; in its capacity to develop new forms of knowledge and understanding capable of changing lives and societies for the better. Instead, they talk about global races and competitive economics: an emaciated version of why science matters.

This leads to a second observation regarding the gaps in the public discussion about Bradford. Quinton-Tulloch highlighted that the decision to refocus on STEM was, in fact, a direct consequence of a thirty per cent cut to the Science Museum Group’s budget (Quinton-Tulloch, 2016). Bradford, it seems, could not afford an inter-disciplinary view on photography any more. The cut to funding for a public institution was the result of the ‘austerity’ agenda relentlessly pursued by the Conservative government in response to an economic collapse caused by the financial industries. In short, it was a consequence of the type of free-market ideology that reduces science and technology – not to mention art, culture and museums – to engines for economic growth, while ensuring the fruits of that growth remain concentrated in the hands of powerful financial elites (Harvey, 2005, p 5).

The planned move is not only about photography, art, STEM or even about a north/south divide. These are symptoms and not the disease; each taking form according to the ideological contours of the wider politico-economic landscape. What is happening at the National Science and Media Museum is happening to university education, to the state comprehensive system, to Legal Aid, to council houses, to the BBC, to junior doctors, to public libraries, to Disability Living Allowance, to social care, to the funding for academic research. Bradford’s STEM agenda appears to be an effort to make the best of a bad situation. But – Quinton-Tulloch’s brief comments aside – this is an approach that risks leaving questions of causation unacknowledged and so, too, unaddressed. Against the backdrop of a dramatically shrinking state, political neutrality and a can-do spirit start to

look worryingly like self-harm.

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Institutional critique

What I am grasping at here, in a roundabout way, are the multifarious and interconnected ways in which politico-economic systems shape both institutional histories of photography and the public meanings of science. I am also trying to make sense of the strange ways in which an exploration of precisely those issues in *Revelations* may have ended up providing an accidental model through which the fate of the National Science and Media Museum can be understood in political and economic terms. Most of all, I am attempting to come to terms with the uncanny ways in which events that were in all likelihood underway when we were working on the exhibition, but which we were in many ways oblivious to at the time, have – upon becoming public – expanded the meanings of the work we produced. I no longer know where the exhibition ends and something else begins.

When I delivered my paper at the SMG conference, as part of a panel that included Museum staff, and to an audience that included the Chair of the SMG Trustees, I came to suspect (not for the first time) that I was stuck inside an allegorical artwork of someone else's making. I have a long-held interest in questions of institutional critique. There is an appealing paradox in deploying the spaces provided by museums and universities to pose questions about the political and economic operations of those institutions – probing at the limits of the freedoms they purport to offer through self-reflexive interrogation. Art historian Alexandro Alberro describes that practice in terms of the juxtaposition of 'the immanent, normative (ideal) self-understanding of the...institution with the (material) actuality of the social relations that currently formed it'. The goal is therefore 'to foreground the tension between the theoretical self-understanding of the institution...and its actual practices of operation'. Both 'as an analytical *and* political position', Alberro explains, institutional critique develops the view that 'if one problematized and critically assessed the soundness of the claims advanced (often tacitly) by art institutions, then one would be in a better position to instantiate a non-repressive art context' (2011, p 3).

We were always aware that our exhibition, housed on the second floor of the Science Museum, provided opportunities to pose questions about attitudes and approaches that prevailed elsewhere in our host institution (Bush, 2015). As I have explained, *Revelations* focused on the social meanings of science and technology. It traced links between the attitudes articulated through artists' engagement with scientific forms and wider discussions prompted by the ways that science had been instrumentalised in different socio-political contexts. The meaning of early scientific photography shifted across time and space in ways that reflected wider ideological formulations and the resistance they had spawned. Contemporary artists offered a particularly sceptical view of technology as a benign social force. The implications of those questions appear to have become more focused as a direct consequence of the planned changes to Bradford and the politico-economic forces that drive them. Shifts within the institution have acted, quite unexpectedly, to amplify and refine our critique. It is the implications of that fact that I am still struggling to come to terms with.

Alberro explains that the process of institutional critique is necessarily dialectical. By playing host to this kind of reflection, the museum makes good on its promise as a public institution, while critique is absorbed as part of the institution it set out to question. Both are transformed as a consequence (2015, pp 3–4). I remain uncertain, however, as to what happens when changes to the institution that have no direct, causative link to the initial critique nonetheless impact, in retrospect, on what that initial challenge is taken to mean. What happens, specifically, to conclusions drawn about the original project as a consequence of that change?

I had taken *Revelations'* pessimistic ending as the clearest indication of what the exhibition was about. To lament the applications of technology used to service the interests of surveillance, profit and post-industrial power felt like an important statement to make in the context of the Science Museum. But, in light of changes within the institutions I was working with, which could not have impacted more directly on the curators with whom I collaborated, I find myself questioning the importance of that statement today. In particular, I regret the omission of alternative conclusions that would have required a more thorough thinking through of the socio-political possibilities contained in the present. In truth, I have come to suspect the meanings I had attached to our history to be as inadequate a response to the troubling times we face as the uncritical celebration of STEM. Both, it now seems to me, involve a fundamental failure to imagine socio-economic relations in anything

other than their current individualistic and market-focused form. Each, I suspect, is symptomatic of the political *malaise* so memorably described by the late cultural theorist Mark Fisher in terms of 'Capitalist Realism': 'the widespread sense that not only is capitalism the only viable political and economic system, but also that it is now impossible even to imagine a coherent alternative to it' (2009, p 2).

Figure 13



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After the future?

Inventing the Future was published in September 2015 – the same month, I have realised, that *Revelations* closed at the Science Museum. The book, by political economist Nick Srnicek and Alex Williams, makes a compelling case for the revived pursuit of utopian futures as a vital step towards combatting hegemonic neoliberalism. Across the twentieth century, 'on the horizons of the political left a vast assortment of emancipatory visions gathered, often springing from the conjunction of popular political power and the liberating potential of technology' (2015, p 1). Today, 'these dreams appear closer than ever', for the technological infrastructure of the twenty-first century is producing the resources through which a very different political and economic system could be achieved. And yet:

...for all the glossy sheen of our new technological era, we remain bound by an old and obsolete set of social relations. We continue to work long hours, commuting further, to perform tasks that feel increasingly meaningless. Our jobs have become more insecure, our pay has stagnated, and our debt has become overwhelming... Automation renders us unemployed and stagnant wages devastate the middle class, while corporate profits surge to new heights. (Srnicek and Williams, 2015, pp 2–3)

Many on the left, Srnicek and Williams propose, have neglected to mine the possibilities of the present situation, contenting

themselves with what is described in terms of 'folk political thinking'. This involved a 'fetishisation of local spaces, immediate actions, transient gestures, and particularism of all kind'. This represents 'a politics of defence, incapable of articulating or building a new world' (Srnicek and Williams, 2015, p 3).

Inventing the Future attempts to break from that model by positing 'an ambitious left alternative', allowing 'the utopian potentials inherent in twenty-first century technology' to be 'liberated from a parochial capitalist imagination' (2015, p 3). That project is expressed in terms of three clear demands. Firstly, governments should embrace and accelerate the processes of automation, reviving earlier utopian visions in which machines would liberate humanity from toil. Secondly, the length of the working week should be reduced through the creation of three-day weekends. Thirdly, living standards should be maintained by redistributing a greater percentage of corporate wealth, introducing a universal basic income payable to everyone in recognition of the work they undertake to reproduce society (Srnicek and Williams, 2015, pp 107–109). While each can be taken as individual goals, 'their real power is expressed when they are advanced as an integrated programme', articulated in terms of the transition to a 'post-work world' (Srnicek and Williams, 2015, p 127). That project will necessarily be carried out in the long-term, a matter of 'decades rather than years, cultural shifts rather than electoral cycles' (Srnicek and Williams, 2015, p 107).

Revelations used photography to examine the interplay of science and art. Our main concern lay in relationships between humanity and the machines it builds, exploring how artists had utilised the symbolic possibilities of scientific imagery to examine technology's potential and its limits. Our account of key examples from the twentieth century emphasised the social, political and economic character of those questions, focusing on the ways in which the instrumentalisation of scientific discovery by a US military-industrial complex prompted earlier utopian views to be revised and, eventually, set aside. The situation was put in particularly plain terms by Moholy-Nagy in the introduction to his book, *Vision in Motion*, published posthumously in 1947. 'Saturated with old ideologies,' he explained, society had 'approached the new dimension with obsolete practices and failed to translate...newly gained experience into...cultural reality.' The result 'has been and still is misery and conflict, brutality and anguish, unemployment and war' (Moholy-Nagy, 1947, p 237).

Contemporary artists looked to the past to make sense of the present. In doing so, they revived and reproduced important elements of a late-modernist sensibility, articulating deep scepticism about the utopian potential of new technology. The perspectives invoked by *Inventing the Future* highlight the limits of that view and the shortcomings of what I believed *Revelations* to be about. By rethinking the potential of the present, Srnicek and Williams encourage renewed reflection on the meanings of the past. Such a project has much to gain from the analysis of what helped stifle earlier utopian dreaming. But it also promotes the pursuit of emancipatory horizons today. In other words, it may be the idiosyncratic socialism of someone like the Bauhaus Moholy, with his utopian fusing of technology and culture, which matters as much – if not more – today than the mounting pessimism expressed by some of the artists who followed. The past flashes up in a moment of danger. What present dangers mean for the past, and the past means for the present, must be constantly and critically revised.

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Science museums

So what does this mean for Bradford? If the National Science and Media Museum is to embrace a programme of STEM then, much like the Science Museum and its other offshoots, it appears to be an ideal – *the* ideal? – space in which to reflect on what technology means to, and for, society. This need not take the form of a prescriptive political vision but, rather, a series of questions through which the current and future meanings of technology will necessarily be defined. Will the governments that oversee automation ensure the savings made through a radical reduction in wage bills are shared, to create a future in which human beings are provided with the means to enjoy their newly gained freedom from toil? Or – saturated with old ideologies – will they protect the status quo, allowing automation to line the pockets of rich shareholders, while casting the rest of us adrift? What, in short, are the futures we would like to use technology to build? And what are the social, economic and political impediments that stand between us and their realisation? The implications of those questions stretch far beyond what we understand as the meanings of technology; not least, they help define the roles and responsibilities of our public museums, today and, particularly, tomorrow.

Figure 14



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Revelations: Experiments in Photography exhibition at the National Media Museum,
Bradford

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Tags

- [Exhibitions](#)
- [Museology](#)
- [Museum collections](#)
- [Curating](#)
- [Photography](#)

Footnotes

1. Any readers who are interested in a more detailed account need only seek out a copy of the book that accompanied the exhibition, see Burbridge, 2015.

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Author information



Benedict Burbridge

Senior Lecturer

[Contact this author >](#)

Dr Benedict Burbridge is Senior Lecturer in Art History at the University of Sussex.