

Historiographies of Image-Technologies in Architecture at the Turn of the Twentieth and Twenty-First Centuries

Akari Nakai Kidd
Deakin University

Sanja Rodeš
Deakin University

Abstract

This paper aims to trace the historiographies of image-technologies as a means of evaluating how major technological developments in the sphere of media are bound to the development of architecture of the same period. It focuses on the essays of Walter Benjamin (1931, 1936, 1955) and Hal Foster (2002, 2011) that reflect on the image-technologies emerging at the turn of the twentieth and twenty-first centuries, respectively, aiming to open a dialogue between their essays and the two historical periods. It is perceived that examination of Benjamin's and Foster's historiographies of image-technologies can provide further insight into the changing relationships of architecture, image and media technologies, specifically through two historical processes; first, the intersection between image-technologies and the subjugation of architecture and; second, the intersection between image-technologies and the commodification of architecture. The relevance of this is to provide a critical perspective on the increasing penetration of technology in architecture around the turn of the centuries, and by extension, the paper effectively expands the understanding of the changing manifestations between architecture and technology. This paper is meant as a contribution to an already rich field of scholarship attending to the interaction between contemporary architecture and image-technologies. Through the explicit development of a historical dialogue between Benjamin and Foster, the paper argues that much of contemporary writing on the interaction between image-technology and architecture remains deeply bound up in questions raised at the turn of the twentieth century. Furthermore, despite the overwhelming conflation of image and media technologies with contemporary architecture, the overview of this conflation is still often negative, and as this paper argues, reductive, particularly witnessed in Foster's essays. We argue for expanding beyond the predominately negative critiques of image technologies to create

broader understanding of the increasingly complex intertwined relationships between architecture and image-technologies.

Introduction

Recent discourses in visual studies and cultural geography, as well as architectural and historical scholarship are re-working the relationship between architecture and its visualization. These discussions, notably by Iain Borden as well as Maria Antonella Pelizzari and Paulo Scrivano, shift away from interpreting architectural images and its associated image-technologies (i.e. photography, moving-imagery, and lately, digital visualizations, or renderings) as purely documenting buildings (representational)¹ towards a more “interdisciplinary approach” that considers things like the “context of production and media distribution of images.”² This concern allows us to recognize image-production and image-technologies as a vital part of architecture, where architectural processes necessarily involve, as Benjamin Buchloh notes, “an endless process of transforming the tectonic and spatial into the spectacular”³ through images. Although these discourses appear very contemporary in character, this paper examines how some specific concerns and critiques that seem most contemporary return to questions that lie at the beginning of the twentieth century.

Due to the scope of this paper, we do not set out to provide a comprehensive and authoritative account of a historiography of image-technologies, rather it aims to look at two critical moments of transition in the history of image-technologies. The turn of the twentieth and twenty-first centuries appear to us as key moments in history that witnessed profound transformation in image-technology and its impact on the way people perceive and experience architecture (Figure 1). These moments are punctuated by historical works of literature, namely the writings of Walter Benjamin (1931; 1936; 1955)⁴ and Hal Foster (2002; 2011). On one hand, we explore essays that preceded some major works by Benjamin, namely ‘A Short History of Photography (1931),’ which preceded ‘The Work of Art in the Age of Mechanical Reproduction (1936),’ and equally, many of the themes and insights of *The Arcades Project* can be found in the already published “resumes” of 1955 also known as ‘Paris, Capital of the Nineteenth Century (1955).’ On the other hand, we also discuss two works published by Foster around the turn of the twenty-first century, in which he examined contemporary architecture along with art, namely Foster’s *Design and Crime (And Other Diatribes)* (2002) and *The Art-Architecture Complex* (2011).

This paper does not attempt to condense Benjamin's writing or the ninety years of photographic history, or to present Foster's voice as the most representative of the relationship between contemporary architecture and image-technologies. Rather, the paper aims to make selective use of Benjamin and Foster's essays and provide further insight into the changing relationships of architecture, image and media technologies. What follows will proceed thematically and identify two historical processes mediated by image-technologies; first, the subjugation of architecture and; second, the commodification of architecture. It will do so through an explicit development of a historical dialogue between what is witnessed in the writings by Benjamin that consider the image-technologies emerging at the turn of the twentieth century and the critique presented in the writings by Foster, at the turn of the twenty-first century.

In the discussion, the paper argues how despite the overwhelming conflation of image and media technologies with contemporary architecture, the overview of this conflation remains largely negative and reductive, particularly in Foster's essays. We seek to, at best constitute, and encourage other scholars interested in the contemporary analysis of the relationship of image-technologies and architecture - to prioritize the increasing complexity of these relationships in the present moment and by doing so, extend the analysis of relationships of architecture and image-technologies today beyond the negative critique.

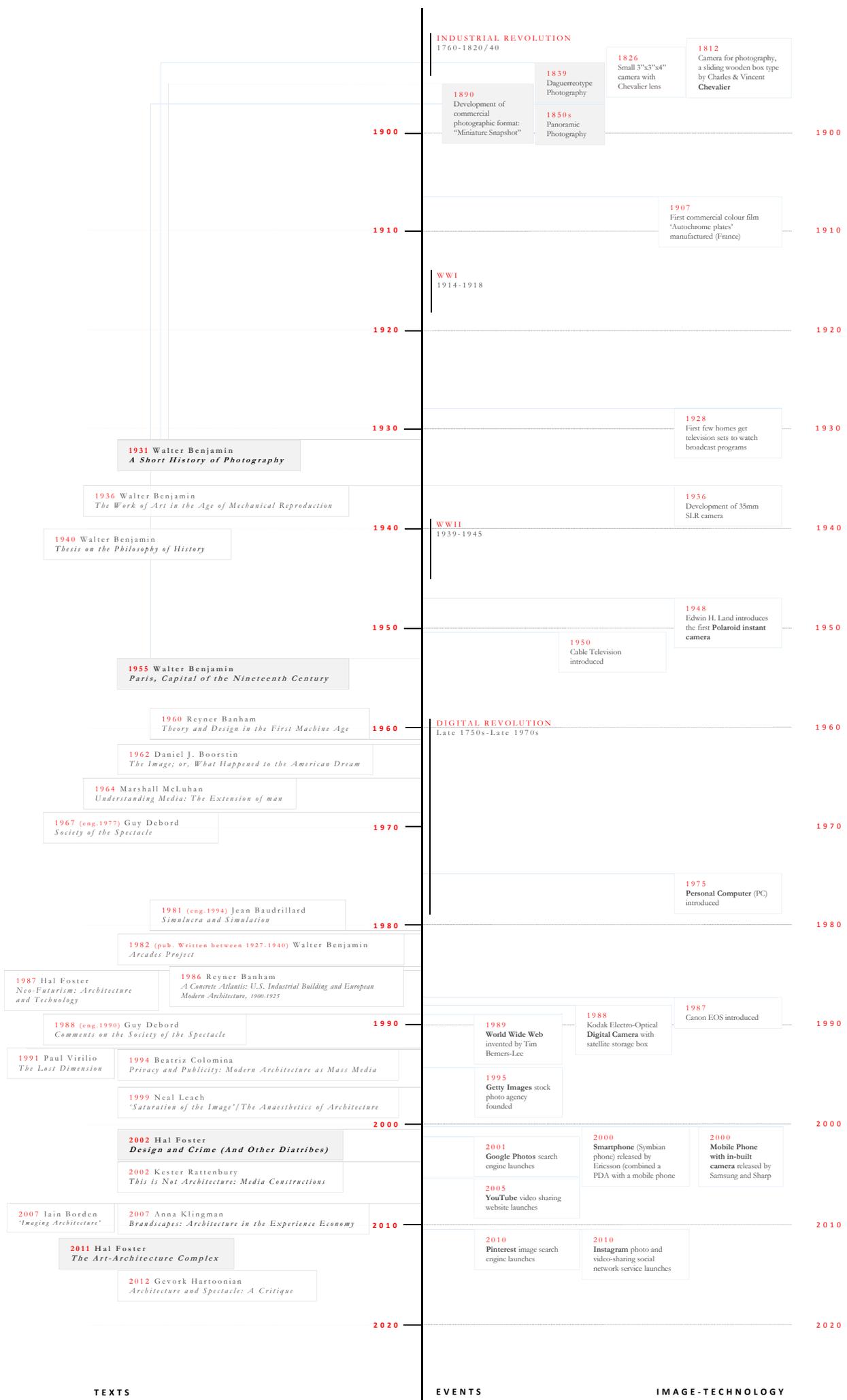


Figure 1: Timeline of selected historiographies of image-technologies and image-critiques in relation to advancement of image-technologies. Constructed by authors.

Intersections between Image-Technologies and the Subjugation of Architecture

The potential role of the image and image technologies for architecture is recognized historically by Walter Benjamin, as he observes: “one cannot say that they [images] reproduce architecture. They produce it in the first place.”⁵ Similarly, Iain Borden, interpreting Charles Jencks’ textualizing of images notes “the image is not object-centred... it reproduces not architecture but social meaning through a depiction of architecture.”⁶ These considerations elevate the role images’ play in architecture; not simply as re-productions or re-presentations of- architecture, rather, towards thinking images as capturing more of- and beyond the ‘real’ architecture. Specific to the process of production and construction of architectural images, Beatriz Colomina offers insight (through her analysis of Le Corbusier’s image-practice) towards embracing the technology of printed media as “a new context of [architectural] production, existing parallel with the construction site.”⁷ In this sense, architecture involves the careful construction of a work “built as image,” most often by the architect.⁸ Concurring with Colomina, Kester Rattenbury argues how this new form of architectural construction (beyond representation of architecture) “establishes the paradigms of high-code architecture and affects how architects see the world and which things get described as architecture.”⁹ Such arguments recognize architectural image-technologies and image-production (of the ‘unbuilt’) as having power to shape physical built environments, thereby confirming Kenneth Frampton’s assertion of image as “agent of mediation.”¹⁰ The role and power of image-technologies is thereby highly significant to architecture, and as such has been noted at the beginning of the twentieth century, most notably in the writings of Walter Benjamin.

Through the selective use of Benjamin’s early works – especially ‘A Short History of Photography’ and ‘Paris, Capital of the Nineteenth Century,’ the following discusses the privileged place of photography in the 1840s which necessarily established a “presence in time and space”¹¹ of a work of architecture – that was deeply mediated by technology. According to Benjamin, among the most significant developments in image-technologies was the emergence of the daguerreotype process, first introduced in the 1830s. Through this process, only non-moving objects could be captured on the plate; the poor light-sensitivity of the plates had made long exposure times necessary. During this necessary extensive period of the exposure, Benjamin observes, “the model grew, so to speak, into the image...” and moreover, “[t]he procedure itself caused the model not to live out of the moment, but rather right into it.”¹² Here, we can think of the architectural figure not as

defined and fixed object but as subject that emerges from the image-site itself, where these one-off images were, as Benjamin writes, “set up to last.”¹³

Reviewing David Oetavius Hill's Gregyfriars cemetery photographic work (1848) (Figure 2), Benjamin illustrates how the image-site “looks like an interior, a cloistered, enclosed space, where tombs, leaning on firewalls, soar out of the meadows.”¹⁴ Here, Benjamin is interested in the internal logic and articulation of the image as an architecture of its own, carefully framed, set up and posed – resembling something between a theatre set and a “well-drawn or well-painted”¹⁵ artwork. Here, the location and site of the architecture is of vital importance as Benjamin further writes: “But this location [of Gregyfriars cemetery] could never have had such a great impact had there not been strong technical reasons,” which made it seem “desirable to position the recordable subject in as remote as possible a place, where nothing stands in the way of peaceful exposure.”¹⁶ Benjamin's writing produces a profound illustration of early image-technology that involves a careful construction and ‘set up’ of the architecture within its photographic-site. In the process, the power of the image subjugates architecture to the specific limits of image-techniques by turning them into objects for our gaze.

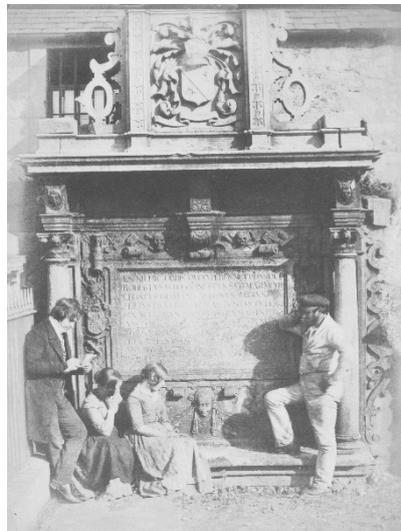


Figure 2: David Oetavius Hill and Robert Adamson, *Gregyfriars Churchyard*, 1848 (Walter Benjamin, ‘Small History of Photography (1931),’ in Esther Leslie (ed. and trans.), *On Photography*, (London: Reaktion, 2015): 69)

Eugène Atget's (1857-1927) work is also worth discussing in the context of image-technologies and architecture, namely his project, *Old Paris* which begun around 1898 (Figure 3). Benjamin writes on Atget's photographic work documenting the architecture and streets scenes of Paris for architects, stone masons, and iron workers. The work

consisted of small and intimate architectural elements from door handles to shop windows and monuments, making an inventory of the city - all empty of human bodies: “The Porte d’Arcueil by the fortifications is empty, the triumphal steps are empty, the Place du Tertre – as it indeed should be – is empty.... The city in these images is cleared out like an apartment that has not yet found a new tenant... a medicative alienation between environment and person.”¹⁷ Aura, Benjamin writes, in Atget’s photography, is pumped out; Atget’s nineteenth-century Paris is emptied of human life, an alien zone, and subject to technological alteration.



Figure 3: Eugène Atget Shop sign au Rémoleur on the corner of the rue des Nonnains-d’Hyères and rue de l’Hôtel-de-Ville, 4th arrondissement July 1899. Copyright of Musée Carnavalet, Paris/Roger-Viollet, (<http://www.atgetphotography.com/The-Photographers/Eugene-Atget.html>)

These representations of the city were, once again, deeply mediated by technology (a tilt-shift technique). And again, Benjamin notes, “[t]he technical reason lies in the long exposure time, which demanded utmost concentration by the subject being portrayed.”¹⁸ Atget’s work on *Old Paris*, as illustrated by Benjamin, project an architecture that has a specific time and space – a specific context and ‘aura’ to which it belongs and importantly, architecture is here taken as subject (in equal terms to human subjects) within the city scape of Paris. Although taken as subject in images, architecture in the process of intersecting with these image-technologies is reduced to an artefact to be manipulated, stripped off of any contextual reference. Hence, we argue the impact of image-technology on architecture is not simply about instrumentalization or the achievement of an end. Instead – the relationship between architecture and image-technologies is increasingly complex and intertwined where architectural images hold capacity to impact our relation to architecture before we experience it firsthand.

Early photography had, Benjamin describes quoting Emil Orlik, “a more penetrating and longer lasting effect on the viewer than more recent photography.”¹⁹ However, Benjamin contends that by the 1900s, image-technology had advanced in terms of “reproducing” unique objects, including architecture. With the loss of the ‘one-off’ image-technique that daguerreotype and calotype processes introduced, “the technique of reproduction detache[d] the reproduced object from the domain of tradition.”²⁰ For this very reason, Benjamin’s writing warns of the rise of architecture’s subjugation to the methods and techniques of image-making; turning architecture into image-subjects.

Only half a century later, the advancement of image-technologies at the end of the twentieth century saw development of computer programs and digitalization which had a profound impact on architecture. Foster’s *Design and Crime (And Other Diatribes)* (2002), and *The Art-Architecture Complex* (2011) provide a detailed insight into how contemporary technology helps in the production of architecture with outstanding forms, and as a tool which allows manipulation to provoke “the heightened visuality” of the architecture.²¹ He positions technology as a crucial element for what he calls a global style in architecture, and as a part of the lineage initiated with Rayner Banham, where Banham believed that it was crucial that Pop design do more than simply express contemporary technologies, but also “elaborate them into new modes of existence.”²² Foster argues that contemporary technologies facilitated the existence of high tech materials and outstanding, digitally manipulated building forms and surfaces. He sees contemporary architecture as subsidiary to “mediated envelope” or “datascape,”²³ and thereby also notes the process of subjugation of architecture to image and media technologies. Considering that Benjamin warned of subjugation of architecture to methods and technologies of image-making, Foster’s note on the subjugation of contemporary architecture can be seen as a more advanced stage of the same process of subjugation warned by Benjamin earlier.

Foster positions technological advances, particularly as related to image, and their penetration into architecture and design, as central to his critique. These technological advances include computer aided software and designs, advanced construction technologies and materials, and the development of digital media. Furthermore, he warns the end of the twentieth century is the time of “total design”, neo-Art Nouveau, which is about image, where this image is almost “subject-less”, and perpetuates “a new kind of narcissism.”²⁴ Foster refers back to Benjamin’s work which argued for a similar claim, however in a very early stage: “Transfiguration of the solitary soul appears its goal ... Art Nouveau is summed up by The Master Builder [of Henrik Ibsen] – the attempt by the

individual to do battle with technology on the basis of his inwardness leads to his downfall.”²⁵ Specifically, through both *Design and Crime* (2002) and *The Art-Architecture Complex* (2011), Foster positions Benjamin’s ideas as critical to explain some of the early manifestations of the relationship of art and mechanical reproduction.²⁶ Writing at the turn of the twenty-first century, Foster’s work reflects a more complex position of art and architecture within the contemporary context of capitalism, digital technologies and globalisation. He notes how contemporary technology helps in the production of architecture which becomes a brand and stands out from its immediate context,²⁷ arguing that such architecture has media as a primary site. Such account further positions media technologies as crucial for understanding contemporary brand architecture.²⁸

Although technology advances have multiplied significantly from the beginning towards the end of the twentieth century, and their involvement in the contemporary architecture and design remains complex and multilayered, Foster warns of the subjugation of design to image (and ultimately, capital), which is in line with Benjamin’s early writings. Technology in Foster’s critique is seen as a tool which allowed, very similarly to image, for manipulation, and which is in service of “design out of ‘the cultural logic’ of advanced capitalism, in terms of its language of risk taking and spectacle-effects.”²⁹ This is particularly evident in his critique of the Guggenheim museum in Bilbao, designed by Frank Gehry (opened in 1997), where Foster sees technology as able to facilitate the provisional CATIA (computer-aided three-dimensional interactive application) design of the museum, and of the construction of the museum itself.³⁰ Nevertheless, while the critique of the relationship between image and media technologies and architecture as allowing for manipulation is rightfully argued, the complexity of these relationships outside of the processes of manipulation remains largely unexplored.

Intersections between Image-Technologies and the Commodification of Architecture

Benjamin’s writing illustrates how the structure of experience on the beholder of the image changed, under advancements of new technologies, specifically in architecture being “transported” through, what Benjamin calls, “visiting cards” where it meets the beholder in miniaturized form. Here, we can isolate one passage in order to illustrate this experience. Benjamin writes, “[e]veryone can observe for themselves how much easier a picture – in particular, though, a sculpture and, even more so, architecture – can be comprehended in photography compared to reality.... Ultimately, mechanical methods of reproduction are a technique of miniaturization and they help provide people with a

degree of mastery over the works, without which those works would no longer find any application at all.”³¹ The advanced techniques fundamentally brought challenges to architecture because it captures and defines reality in terms of media, where it indeed begins to value appearance over true physical experience.

According to Benjamin, the image-experience of the beholder shifted as the technological advances of photography extended the marketability and, eventually separated photography from art to become a commodity. Referring back to Benjamin, Steiner writes, “Photography for its part has, since the middle of the century, enormously expanded the scope of the commodity trade by putting on the market in unlimited quantities figures, landscapes, events.... To increase turnover, it renewed its objects through fashionable changes in photographic technique that determined the later history of photography.”³² While Benjamin, as Caygill notes, “lingers on the moment of transition, before the socio-technical imagination becomes governed by the framework of the market...,”³³ his writings also suggest that architecture was heading towards a commodity in its own right, and that through rapid rise of technology – architecture and architectural images were soon moving towards mass production/ endless repetition. Such accounts illustrate the structure of the changing experience of observing and experiencing architecture, under the pressure of new technologies.

Almost a century later, in *Design and Crime* (2002), Foster presents a critique of the same process of commodification of architecture and art, which is in its developed phase. His writing is critical of the design at the end of the twenty-first century, for which he argues it represents the conflation of the sign and commodity. Foster warns of the deterritorialising of the image and space, mediated by the advancement in digitalization of photography, and with computing in architecture. He refers to Bruce Mau Design as an example, whose main attempt as a graphic support for the new Seattle Public Library designed by OMA was the suggestion to integrate architecture and information; the real with the virtual.³⁴ As architecture is loosened from its structural principles, and almost everything can be designed and built, Foster’s writing discusses how this allows for designs such as Gehry’s Guggenheim in Bilbao and similar computer aided architectures to emerge. As a result, and in Foster’s words, “this deterritorializing is the path of capital.”³⁵

Foster rightfully believes in the importance of turning to history in order to analyse the roots of phenomena related to visual culture and image (and, as one could add, image-related technologies), rather than excessively prioritising the present moment by

understanding these phenomena as novelty. By looking at history, he parallels the equality of image and subject with commodity fetishism, as outlined by Karl Marx in *Capital*, emphasising that such fetishism is in its advanced stage in the contemporary moment.³⁶ Using this approach, Foster argues for such image “having life of its own,” the “fetishistic image-anthropomorphism... the projection of the human into the nonhuman.”³⁷ Thereby, Foster argues for the commodity fetishism of a contemporary architecture and art which is saturated by images, and perpetuates a similar point in *The Art-Architecture Complex* (2011). In Foster’s latter book, he analyses this complex in relation to the space of an art installation and architecture, which, as he holds, does the observing for the viewers; “it takes our thoughts and sensations, process them as images and effects, and delivers them back to us for our appreciative amazement.”³⁸ He sees these as a more contemporary version of the old problem of fetishisation.

The critical position which Foster has with image-technologies pushes against the overwhelming conflation of these technologies with contemporary architecture, where Foster focuses on one aspect amongst a multitude of these relationships. This paper admits the difficulties in engaging with the complexities of the contemporary technologies of representation and their relationship with architecture, however, often for the same reasons, it sees that full complexity of the relationship remains largely unexplored. Foster attempts to engage with contemporary digital technologies in *Design and Crime* (2002), briefly examining the digital image, admitting that he only has “impressions to offer.”³⁹ He sees the digital image as a “luminous scrim of information... to be manipulated at will. But what one manipulates on the screen is data (Latin for ‘given’), which suggests that we do not produce this information as much as we manipulate its given-ness.”⁴⁰ Although offering only impressions in his writing, Foster perpetuates the argument by which digital technologies and image allow for manipulation, admittedly without the tools to fully analyse the complexity of this medium.

Of course, preceding Foster’s works’, there has been writings and critical reflections upon architecture as “fully ensnared” within a contemporary condition described as an “ecstasy of communication.”⁴¹ Paul Virilio comments on the modern era of speed and instantaneity and this turn towards image focussed architecture.⁴² Drawing on medium theorists such as Marshall McLuhan, Virilio analyses media innovation and its impact on modes of representation (images). Particularly, he argues the influence of new image-technologies as involving a process of “derealization and dematerializing of the object.”⁴³ Indeed, this view projects the effects of new visual mediums as contributing to the discontinuous and disembodied form of architectural experience.

In addition, Neil Leach is critical of architects' obsession with the image which has reduced "design ... to the superficial play of empty, seductive forms."⁴⁴ This "process of aestheticization," driven by the excess and surfeit of images, has in turn reduced the image empty of content. In agreement with Leach, Foster addresses the implications when architecture becomes the image, or as Gevork Hartoonian puts it, when architecture becomes "the site of spectacle."⁴⁵ Moreover, Guy Debord and Jean Baudrillard analyse the reality and its 'copy', defined by the spread of mass media and hegemony of governments in controlling mid-twentieth century capitalist societies, which were, as they believe, manipulated and alienated by the 'pseudo' world of commodities, consumption, false desires and images.⁴⁶ With their largely pessimistic point of view, these authors provoke further pessimism and critique from more contemporary architecture authors, who often see their work as an authority. It is necessary to challenge these authoritative positions, and further expose the limitations of negative and reductive analysis within the phenomena of spectacle and simulacra/simulation.

Both writings of Benjamin and Foster effectively reflect on the process of commodification of architecture due to development of technologies for mass reproduction, and later due to digital technologies and advanced media. Despite the insightfulness of critique, it is relevant to note the binary structure perpetuated in the analysed texts in this paper (particularly by Foster) which positions image-technologies as a negative influence on architecture. Within such structure, there is no room for understanding the potential opportunities these technologies represent for architecture, and there is a danger of a reductive understanding of the impact of contemporary image-technologies on architecture.

Intersections between Architecture and Image-Technologies beyond Commodification and Subjugation

Authors such as Ari Seligmann (2008) and Anna Klingmann (2007) examine architectural publicity, and architecture as a part of brandscapes and experience economy, respectively, in an attempt to extend the analysis of the relationship between image-technologies and architecture. Seligmann particularly offers an understanding of the potential opportunities image-technologies and advanced media bring to architecture. He believes that architecture moving out of the background due to increased media attention is positive, and stresses the need for the existence of institutions and additional venues to media that would further deal with architectural publicity in terms of its nature and potential. For example, he sees the Guggenheim in Bilbao as a 'spectacular' public

building that offers possibilities for enjoyment and entertainment, along with providing common places for public gatherings, thereby positioning it outside of the negative critique. Seligmann further believes that there is a benefit to architecture having increased publicity and which opens itself to further attention, since this also increases the possibilities for further architectural debates.⁴⁷ In addition, Klingmann observes, ‘it is commonly assumed that architecture would somehow be degraded if it were too closely associated with commerce—a misconceived attempt at framing architecture as a purely artistic activity....’⁴⁸ In analysing architecture as a part of brandscapes, she sees this architecture as necessarily positioned within the wider economic context and argues against analysis of architecture as a work of art, outside such context. Architecture as a brand arguably cannot be considered outside of its relationship with image and media, which calls for further analysis that would acknowledge this relationship rather than dismiss it. Importantly, Seligmann and Klingmann’s works extend the analysis of the relationships between architecture, image and media technologies beyond the negative critique.⁴⁹

From a different perspective, Barbara Stafford (1996), offers extensive analysis of the benefits of the visual in contemporary culture.⁵⁰ In arguing these benefits, she notes the difficulty in comprehending contemporary image-technologies due to the speed of their development, and suggests the need for the “new imagist” who would be an interdisciplinary expert equipped in understanding contemporary visual and image (technologies).⁵¹ Stafford notes the negative ‘image bias’, and reminds us that working with surfaces does not necessarily qualify as superficiality.⁵² This must be extended to the architectural discipline, where additional examination would separate superficiality, or what can be referred as lack of ‘meaning’ in architecture, from being perceived as equal to architecture’s engagement with media or image.

Previous arguments reflect the need to engage with contemporary image-technologies, and with the penetration of such technologies in architecture beyond the reductive analysis. It is necessary to extend the analysis of contemporary relationships between image-technologies and architecture beyond the concepts of manipulation or commodification to fully comprehend both the scope of these relationships, and contemporary architecture as often bound to these technologies.

Conclusion

In this paper, we have aimed to present the historical dialogue between the writings by Benjamin and Foster, the former which recognized the impact of image-technologies

early on (Benjamin), and the latter who reflected on the development of the same process and impact of these technologies on art and architecture in both twentieth and twenty-first centuries (Foster). The context in which Benjamin's essay is situated contrasts with that in which Foster writes at the beginning of the twentieth century. Benjamin warns of the intersection between image-technology and architecture because of the sense of "loss" of authenticity and aura that at that present moment, early photography embodied, and which was lost through the advanced techniques which led to snapshots. His writing illuminates image-technological advances as a form of novelty and innovation. However, since Benjamin's essays, many image-technological advances have penetrated into arts and architecture, and we are now in a more complex relationship. The paper argues how despite the overwhelming conflation of image and media technologies with contemporary architecture, critique in Foster's essays is inherently a dead-end in analysis rather than productive and embracing current advances in image-technology.

The tracing of image-critiques presented through this paper, looks at issues spanning from architecture in images, imaging architecture to image in architecture. What ties them together is their insistence for architecture to critically engage with image-making processes, and most importantly, image-technologies, as architecture is increasingly becoming defined and shaped through imagery. Nevertheless, if only looked through the lens of negative critique which reduces the so-called image-architecture to commodity, or image-technologies as tools for manipulation, the critique does not provide a path for constructive analysis. It is thereby necessary to challenge the binary structures to fully understand the increasingly complex relationship contemporary architecture holds with image-technologies and techniques for representation. There is a need for a discussion which takes into account the complexity of these relationships, and as such aims to unravel contemporary architecture (including projects by highly regarded architectural companies such as OMA, MVRDV, or Diller, Scofidio + Renfro) as frequently bound to, and often inseparable, from image-technologies. It is thereby necessary to acknowledge the existence of representative examples of architecture which engages with image-technologies, and to also acknowledge the need for research into the different ways their architecture engages with the complexities of image and media. This paper argues that the positions architecture occupies in relation to media and image-technologies are prolific, and while the present study is timely, it is also continuously expanding with the advancement of image-technologies.

Endnotes

- ¹ See Iain Borden, 'Imaging Architecture: The Uses of Photography in the Practice of Architectural History,' *Journal of Architecture*, 12 (2007): 55-77.
- ² Maria Antonella Pelizzari and Paulo Scrivano, 'Intersection of Photography and Architecture-Introduction,' *Visual Resources*, 27, 2 (2011), 109.
- ³ Benjamin Buchloh, quoted in Pelizzari and Scrivano, 'Intersection of Photography and Architecture-Introduction,' 109.
- ⁴ Walter Benjamin, 'The Work of Art in the Age of Mechanical Reproduction (1936),' in Hannah Arendt (ed.), Harry Zohn (trans.), *Illuminations* (London: Fontana Press, 1992), 211-44; Walter Benjamin, 'Small History of Photography (1931),' in Esther Leslie (ed. and trans.), *On Photography*, (London: Reaktion, 2015): 79- 84; Walter Benjamin, 'Paris – Capital of the Nineteenth Century (1955),' in Peter Demetz (ed.), Edmund Jephcott (trans.), *Reflections: Essays, Aphorisms, Autobiographical Writings*, (New York: Schocken Books, 1978), 146-162.
- ⁵ Walter Benjamin, *The Work of Art in the Age of Its Technological Reproducibility And Other Writings on Media*, in Michael W. Jennings, Brigid Doherty, and Thomas Y. Levin (eds.), *Walter Benjamin*, (London: Harvard University Press, 2008), 71.
- ⁶ Borden, 'Imaging Architecture,' 71.
- ⁷ Beatriz Colomina, quoted in Pelizzari and Scrivano, 'Intersection of Photography and Architecture-Introduction,' 108. See also Beatriz Colomina, 'Architectureproduction,' in Kester Rattenbury (ed.), *This Is Not Architecture: Media Constructions*, 207-221 (New York: Routledge, 2002), and Beatriz Colomina, *Privacy and Publicity: Modern Architecture as Mass Media* (Cambridge, Mass.: MIT Press, 1994).
- ⁸ Beatriz Colomina, 'Media as Modern Architectures,' in *Thomas Demand, Serpentine Gallery* (London: Serpentine Gallery; Munich: Mosel, 2006), 20.
- ⁹ Kester Rattenbury, 'Introduction,' in Kester Rattenbury (ed.), *This Is Not Architecture: Media Constructions*, (New York: Routledge, 2002), xxiii.
- ¹⁰ Kenneth Frampton, *Commodification and Spectacle in Architecture: A Harvard Design Magazine Reader*, William S. Saunders (ed.), (Minneapolis: University of Minnesota Press, 2005), 17.
- ¹¹ Benjamin, 'The Work of Art in the Age of Mechanical Reproduction,' 214.
- ¹² Benjamin, 'Small History of Photography,' 72.
- ¹³ Benjamin, 'Small History of Photography,' 72.
- ¹⁴ Benjamin, 'Small History of Photography,' 71.
- ¹⁵ Orlik, quoted in Benjamin, 'Small History of Photography,' 72.
- ¹⁶ Benjamin, 'Small History of Photography,' 71.
- ¹⁷ Benjamin, 'Small History of Photography,' 84.
- ¹⁸ Benjamin, 'Paris – Capital of the Nineteenth Century,' 15.
- ¹⁹ Benjamin, 'Small History of Photography,' 72.
- ²⁰ Benjamin, 'The Work of Art in the Age of Mechanical Reproduction,' 219.
- ²¹ Hal Foster, *The Art-Architecture Complex* (London: Verso, 2011), 2.
- ²² Foster, *The Art-Architecture Complex*, 5. For Reyner Banham's writings and essays on images, see Reyner Banham, *A Concrete Atlantis : U.S. Industrial Building and European Modern Architecture, 1900-1925* (Cambridge, Mass.: MIT Press, 1986), Reyner Banham, 'The New Brutalism', *Architectural Review* 118 (December 1955): 354-61.
- ²³ Foster, *The Art-Architecture Complex*, 15.
- ²⁴ Hal Foster, *Design and Crime: And Other Diatribes* (London: Verso, 2002), 25.
- ²⁵ Foster, *Design and Crime*, 26.
- ²⁶ Foster, *Design and Crime*, 75-8, and Foster, *The Art-Architecture Complex*, 210, 270-1, 267, 286.
- ²⁷ Foster, *The Art-Architecture Complex*, 36.
- ²⁸ Foster, *The Art-Architecture Complex*, 14.
- ²⁹ Foster, *Design and Crime*, 41.
- ³⁰ Foster, *Design and Crime*, 34-42.
- ³¹ Benjamin, 'Small History of Photography,' 88-89.
- ³² Benjamin, 'Paris – Capital of the Nineteenth Century,' 151.
- ³³ Caygill, Howard. *Walter Benjamin: The Colour of Experience*, (London: Routledge, 1998), 147.
- ³⁴ Benjamin, 'Paris – Capital of the Nineteenth Century,' 162, cited by Caygill, *Walter Benjamin: The Colour of Experience*, 147.

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- ³⁵ Foster, *Design and Crime*, 24.
- ³⁶ Foster, *Design and Crime*, 96, 101; see also 'The Fetishism of the Commodity and its Secret' in Karl Marx and Ernest Mandel, *Capital : A Critique of Political Economy*, trans. Ben Fowkes, vol. 1 (New York: Penguin Books Limited, 1990), 163–177.
- ³⁷ Foster, *Design and Crime*, 101.
- ³⁸ Foster, *The Art-Architecture Complex*, xii.
- ³⁹ Foster, *Design and Crime*, 96.
- ⁴⁰ Foster, *Design and Crime*, 97.
- ⁴¹ Jean Baudrillard, referred to by Neal Leach in: Neal Leach, 'Saturation of the Image,' in Neal Leach (ed.), *The Anaesthetics of Architecture*, (Cambridge: The MIT Press, 1999), 1.
- ⁴² Paul Virilio, *The Lost Dimension*, trans. Daniel Moshenberg (New York: Semiotext, 1991).
- ⁴³ Douglas Kellner, "Virilio, War and Technology," in John Armitage (ed.), *Paul Virilio, from Modernism to Hypermodernism and Beyond*, (London: Sage, 2000), 116.
- ⁴⁴ Leach, *The Anaesthetics of Architecture*.
- ⁴⁵ Gevork Hartoonian, *Architecture and Spectacle A Critique* (London: Ashgate, 2012), 3.
- ⁴⁶ Guy Debord, *Society of the Spectacle*, 1 vols. (Detroit: Black & Red, 1983). Guy Debord, *Comments on the Society of the Spectacle*, trans. Malcolm Imrie, Verso Classics (London ; New York: Verso, 1998), and Jean Baudrillard, *Simulacra and Simulation*, trans. Sheila Faria Glaser, *The Body in Theory* (Ann Arbor: University of Michigan Press, 1994).
- ⁴⁷ See Ari D. Seligmann, 'Architectural Publicity in the Age of Globalization' (PhD diss., University of California, 2008).
- ⁴⁸ Anna Klingmann, *Brandscapes: Architecture in the Experience Economy* (Cambridge: MIT Press, 2007), 7.
- ⁴⁹ See Klingmann, *Brandscapes*, and Seligmann, 'Architectural Publicity.'
- ⁵⁰ Barbara Maria Stafford, *Good Looking: Essays on the Virtue of Images* (Cambridge: MIT Press, 1996),
- ⁵¹ See 'The New Imagist' in Stafford, *Good Looking*, 68-81.
- ⁵² Stafford, *Good Looking*, 7.