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Glass Before its Time, Premature Iron: the Unforeseeable Futures of Technology in Benjamin's Arcades Project

Graham MacPhee
West Chester University of Pennsylvania, gmacphee@wcupa.edu

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> Only now are we beginning to guess what forms - and they will be determinative for our epoch - lie hidden in machines.
>
> Walter Benjamin, *The Arcades Project*

HISTORICAL OPTICS

Walter Benjamin's significance within English speaking cultural criticism is usually located in his anticipation of two central tendencies - namely the contemporary concern for the unprecedented impact of technology, and our pervasive scepticism towards notions of progress and historical continuity. Yet if this is true, Benjamin's prescience is judged rather differently in each case. His rejection of a progressive temporal framework is widely regarded as an expansive conceptual move, a liberating theoretical act that enriches historical interpretation by restoring to it a concern for questions of absence, memory, and differential return. On the other hand, Benjamin's consideration of technology - associated primarily with the question of image reproduction - is seen as an important precursor of contemporary approaches, but one that is fundamentally limited, and which has been superseded by subsequent theoretical developments: although marking a step in the right direction, it has quickly come to be regarded as out of date.

This divergent reception-history is registered in the fate of Benjamin's conceptual vocabulary. Expressions drawn from Benjamin's temporal lexicon - such as 'after-life', 'ruin', 'mourning', 'homogenous time', and 'convoluted temporality' - have achieved a widespread currency, even where Benjamin's name is not directly mentioned. In contrast, Benjamin's visual terminology has proven much less successful. In contemporary discussions of visual culture, the language of the 'spectacle' and the 'simulacrum' tends to predominate, and where Benjamin's thinking is invoked it is quickly translated into these terms without much comment or reflection. This unhappy fate is manifested in the pre-eminence of the term 'aura', whose 'loss' - once isolated from the wider conceptual matrix of Benjamin's thinking - can be assimilated to contemporary narratives of the shift from 'depth' to 'surface' and the consequent claim for 'the loss of the real'. However, such a reduced conception of Benjamin's understanding of technological appearance strips it of its temporal dynamic, resulting - ironically enough - in the familiar claim that his analysis of photography and film exhibits a

naïve faith in technological progress. Thus, the very theoretical failure which Benjamin is routinely praised for avoiding at one level is ascribed to him at another.

The aim of this essay is not so much to refute this reading, as to grasp its elisions, ironies and misrecognitions as an interpretative opportunity that points beyond it. As Benjamin argues in 'Goethe's Elective Affinities' (1922), 'the interpretation of what is striking and curious' in a work's reception-history 'becomes a prerequisite for any later critic', a contention that is just as relevant to the after-life of Benjamin's text as it is to that of Goethe.[1] The retrospective construction of Benjamin sketched above implies a number of suppressions and oppositions: philosophically, it involves the suppression of Benjamin's engagement with Kant; methodologically, it misrecognises the dual role of the visual as both 'material' and 'method' in Benjamin's work; conceptually, it requires the separation of Benjamin's thinking of technology from his thinking of time; and textually, it assumes an untenable distinction between certain texts which are seen to focus exclusively on the philosophy of history and the temporality of interpretation - such as the 'Epistemo-Critical Prologue' to the *Trauerspiel* study (1928),[2] Convolute N of *The Arcades Project*,[3] and 'On the Concept of History' (1940)[4] - and those which are seen as centring on the analysis of technology - such as *One Way Street* (1928),[5] 'Little History of Photography' (1931),[6] and most famously 'The Work of Art in the Epoch of its Technical Reproducibility' (1935/6).[7]

This essay argues that rather than implying a progressive linear drive, Benjamin's analysis of technology is inextricably bound up with the conception of convoluted time developed in his philosophy of history. Further, it argues that the point of intersection between technology and time in Benjamin's thinking lies in his consideration of visual experience. This essay explores Benjamin's triangulation of technology, time and vision by tracing the complex relationship between two texts that have become central to Benjamin's reception in the anglophone academy, but which remain to be adequately understood together - the seminal essay on technology, 'The Work of Art in the Epoch of its Technical Reproducibility', and the voluminous and unfinished collection of notes and drafts that constitutes *The Arcades Project*. Benjamin laboured on *The Arcades Project* throughout the 1930s and was himself clear about its significance for the broader spectrum of his thinking, describing it to Gershom Scholem in 1930 as 'the theatre of all my conflicts and all my ideas'.[8] However, the relationship between the 'Work of Art' essay and this larger project is not straightforward: as Benjamin explained in a letter to Werner Kraft, although the Work of Art essay 'bears no relationship [to *The Arcades Project*] in terms of content, …. [m]ethodologically, however, it is most intimately related to it'.[9] Visual motifs permeate Benjamin's interminable research into nineteenth century Paris, from the gazing *flaneur* to the prostitute as object of the gaze, and from the rows of dazzling commodities that line the new plate windows of the department stores to the dioramas, boulevards, picture puzzles, and yellowing hand-bills that swell the thirty six convolutes. And of course, the

1. *SW1*, p297.

2. *OGTD*, pp27-56.

3. *AP*, pp456-88.

4. Translated as 'Theses on the Philosophy of History', *I*, pp255-66.

5. *SW1*, pp445-88.

6. *SW2*, pp507-30.

7. Two of the three versions of this essay are now available in English translation: the second version in *SW3*, pp101-33; and the third in *I*, pp219-53. I have used what I take to be the most literal rendering of the essay's title.

8. *C*, p.359.

9. *C*, p517.

visual is key to Benjamin's consideration of the arcades - those transitional visual environments which exploit the light of day through their traceries of glass and iron, while at night basking in the artificial glow of the new gas light. But crucially, the visual also figures as the methodological principle or strategy that underlies the mass of material, a principle that Benjamin describes in terms of 'montage', 'allegory', 'the image at a standstill', and the 'dialectical image', terms that echo the practices of visual art, photography and film. This dual role - as material and method - points to the temporal complexity of Benjamin's understanding of technological appearance.

The inextricability of method and material emerges most powerfully in the figure of the arcades themselves. Their significance lay in the fact of their peculiar untimeliness: mostly dating from the first half of the century, for Benjamin they presented an image of 'glass before its time, premature iron'. The arcades anticipated the technological matrix of the twentieth century city, which would exploit glass and steel to produce new forms of construction and thus new contexts for the organisation of social, political, economic and cultural life. And yet the arcades had not been historically successful:

> In the arcades, both the most brittle and the strongest materials suffered breakage; in a certain sense, they were deflowered. Around the middle of the past century, it was not yet known how to build with glass and iron. Hence, the light that fell from above, through the panes between the iron supports, was dirty and sad.[10]

10. *AP*, F1, 2.

Once commercial activity migrated to the department stores, whose more businesslike exploitation of iron and glass was able to organise desire more efficiently around the rhythms of commodity production, the arcades quickly became the overlooked refuge of forgotten and unwanted objects. But for Benjamin, the momentary emergence of unforeseeable futures is latent in precisely such sites, where the visible 'molders under spurious constructions: glass before its time, premature iron'.[11]

11. *AP*, F3, 2.

Without a recognition of the temporal complexity of Benjamin's conception of visual experience, his discussion of technology risks being separated from his thinking of time, and so mistaken for an uncritical enthusiasm for machines or even a species of technological determinism. The aim of this essay is to trace something of the complex relationship between technology, time and vision in Benjamin's work by reading together the Work of Art essay and *The Arcades Project*. In doing so it seeks to illuminate the political orientation of Benjamin's analysis of technology by examining its embeddedness in the increasingly violent scene of modern politics.

REINVENTING VISION

Technology's reorganisation of the visual has played such an important role in defining our contemporary cultural condition that it is easy to feel familiar

with the conceptual topos of Benjamin's account of image reproduction, even if unacquainted with its broader philosophical, theological or political commitments. However, such a comfortable sense of familiarity is likely to be misleading, since most contemporary accounts of technologically-mediated visual culture take their bearings from very different intellectual co-ordinates.

Contemporary discussion tends to identify the impact of technology on visual experience in terms of a shift from 'surface' to 'depth', a shift that is understood as constituting 'the loss of the real'. In effect, such an approach views our visual condition as an inversion of the Cartesian paradigm of vision.[12] For Descartes, the prior correspondence between rational form and the realm of extended substance allows the perceiving subject to *see through* illusory appearance and grasp the world that lies behind. For theorists such as Guy Debord, Jean Baudrillard, Paul Virilio and Frederic Jameson, contemporary technology severs any such connection by granting autonomy to appearances, emptying visual experience of access to the substantial world of 'the real' and leaving the perceiving subject overwhelmed and disorientated. In contrast, Benjamin's understanding of vision seeks to radicalise Kant's concept of experience, rather than returning to the pre-Kantian opposition of 'the illusory' and 'the real'. For Kant, appearance (*Erscheinung*) is not illusion (*Schein*), since appearances are not arbitrary and formless, but are already organised in terms of the forms of intuition - space and time. Consequently, knowledge is limited to the realm of spatio-temporal appearance, rather than being projected into a 'real' that lies beyond it. Kant's valorisation of appearance over and against an unseen absolute marks a profound break with the Platonic and Christian subordination of experience to an otherworldly truth.[13] As such it reveals as dogmatic the Cartesian appeal to a prior configuration of form which is to ground certainty, with its restricted opposition between the illusory and 'the real'. Or to put it more bluntly, in Kant there is no 'real' in the first place which might subsequently be 'lost'.

However, if Benjamin draws on Kant in rethinking visual experience, his approach is not just another call for a move 'back to Kant'. Rather, as Howard Caygill argues, Benjamin's project involves 'recasting' the transcendental philosophy in order to overcome its perceived limitations.[14] In 'On the Programme of the Coming Philosophy' (1918), Benjamin argues that the problem with Kant's concept of experience is that it suffers a double restriction which fixes the co-ordinates of space and time: first, because it is limited within the paradigm of subject and object, and second because it is patterned on empirical human consciousness.[15] In developing his own approach to vision, Benjamin describes a different conception of the nature of spatio-temporal experience.[16] Like Kant, Benjamin understands phenomenal objects to occur as already spatially and temporally organised; but unlike Kant, their organisation is not limited to the forms of human intuition, and nor is human intuition itself conceived of as fixed, but is

12. I defend this claim and develop a broader account of the role of the visual in recent cultural theory in chapter 2 of my *Architecture of the Visible: Technology and Urban Visual Culture*, London, Continuum, 2002.

13. For a discussion of the continuing significance of this shift, see Graham MacPhee, 'Appearance and Revelation: Benjamin, Derrida and the Institution of Knowledge', in *Literature and Theology*, forthcoming.

14. See Howard Caygill, *Walter Benjamin: The Colour of Experience*, London, Routledge, 1998, chapter 1. The argument presented here follows Caygill's powerful rereading of Benjamin's thinking in terms of a 'transcendental but speculative philosophy' (p4).

15. *SW1*, p100-1.

16. For a fuller account of Benjamin's rethinking of visual experience see chapter 4 of my *Architecture of the Visible*, op. cit.

understood as historically variable. Consequently, objects are seen to encode different modes of experience, while the parameters of human perception through which they are apprehended change over time. In being seen, therefore, the spatio-temporal configuration of the object is apprehended through a heterogeneous structuring of experience. Vision is no longer to be thought of as the static confrontation between the interiority of a self-possessed subject and a world of exteriority, but occurs as the overlay of different configurations of space and time within which variable patterns of similarity, difference and resonance may arise.

The implications of this conceptual shift are far-reaching. Rather than inhabiting a fully present moment of apprehension, vision is seen to involve the interplay of non-synchronous configurations of experience. In these terms, visual experience cannot be reduced to the conscious intention of a subject, since visual echoes may jump out at the eye and give rise to unexpected associations of memory and meaning - or what Benjamin calls 'non-sensuous similarities'.[17] Further, the patterns of resonance, relation or difference that emerge in perception are not ordered around a static transcendental configuration or 'canon'. That is, the parameters of visibility are not fixed around the clarity, coherence and harmony of a single organisation of form, but themselves emerge in the interplay between different configurations of experience, as much in blurring and dissonance as in relation and resemblance. Benjamin's philosophical reinvention of vision, then, involves rethinking the very parameters of experience, and therefore implies a reconceptualisation of the relationship between the transcendental and the phenomenal.

With this in mind, the distance between Benjamin's conception of visual experience and contemporary accounts of 'the loss of the real' becomes clear. Where such accounts claim that technological appearances are illusory and empty, Benjamin understands visual experience as being imbued with a variable potential or charge - although the realm of experience is no longer to be considered simply as the scene of Kantian knowledge, and still less as an opportunity for grasping 'the real'. Attempts to read Benjamin's diagnosis of the 'decay of aura' in terms of 'the loss of the real' ignore this important conceptual difference, and as a consequence they flatten out significant aspects of Benjamin's visual lexicon. While accounts of the loss of 'the real' narrate the inability of vision to access a world of substances 'behind' illusory appearance - hence the shift from 'depth' to 'surface' - such a conceptual framework makes no sense for Benjamin, who envisages the decay of aura not in terms of surface and depth, but in terms of *nearness* and *distance*. Benjamin's terms 'near-sight' (*Nahsicht*) and 'far-sight' (*Fernsicht*), borrowed from the Viennese art-historian Alois Reigl, describe the variability of the transcendental organisation of experience, and have nothing to do with the notion of seeing 'through' illusory appearance to 'a real' that might lie beyond.

The concepts of near-sight and far-sight that underlie Benjamin's account

of vision in both *The Arcades Project* and the Work of Art essay developed out of his analysis of the historical emergence of modernity in the *Trauerspiel* study (1928). In Benjamin's hands the terms were used to elaborate the historicity of the very structuring of apperception, an approach which not only implies the historical variability of perception, but also ascribes an unprecedented temporal complexity to experience. Central to this understanding of perception and apperception - and by extension to the new conception of experience which they imply - was the historical reformulation of what in English-speaking criticism we refer to as 'technology', but what Benjamin called '*Technik*'.

Technik and temporality

Underlying Benjamin's reinvention of vision lies a broader reconceptualisation of experience that allows him to avoid the oppositions of interiority and exteriority - or 'technique' and 'technology' - which more recent positions often imply. As Julian Roberts has pointed out, Benjamin does this by exploiting the ambiguity of the German word *Technik*, whose meaning includes two distinct senses which in English are expressed by the terms 'technology' and 'technique' respectively. Thus, as Roberts observes, 'a piece of machinery is *Technik*, and so are the methods and organisations used to exploit it'.[18] According to Howard Caygill, this extended usage is designed to overcome the traditional opposition between the 'spiritual' and the 'material' by conceiving of *Technik* 'as a medium of organisation which pattern[s] experience while being reciprocally subject to change in the face of experience'.[19] As a way of describing the organisation of experience, *Technik* not only designates an apparatus like the camera or 'visual technics' such as drawing or painting, but also pre-modern ways of relating to nature such as ritual or magic.

Benjamin's new concept of *Technik* therefore marks a considerable extension of what we normally think of as 'technology', a point that is made clear in the first and second versions of the Work of Art essay, but which is elided in the third version. Thus, in the second version of the essay Benjamin describes both film and magic as forms of *Technik*, in that they each constitute a particular way of organising the relationship between humanity and the phenomenal world. However, if both are designated as instances of 'technology', the essay insists on a radical difference between them, a difference reflected terminologically in the distinction between what is called the 'first technology' of myth and magic, and the 'second technology' of modernity. This distinction is elaborated through their anticipated tendencies: 'The achievements of the first technology', Benjamin writes, 'might be said to culminate in human sacrifice; those of the second, in the remote-controlled aircraft which needs no human crew'.[20] At first sight the point of this comparison may seem obscure, but in fact the distinction that Benjamin draws here is precise and consistent, and depends not on a

18. Julian Roberts, *Walter Benjamin*, London, Macmillan, 1982, p157.

19. Caygill, *Walter Benjamin: The Colour of Experience*, op. cit., p96.

20. *SW3*, p1.07.

rhetorical opposition between custom and machinery but on the difference between two modes of temporality.

Benjamin locates the condition of possibility of these different temporalities in the historically variable relation between technology and the phenomenal world, or 'nature'. Magic emerged as a response to 'the requirements of a society whose technology existed only in fusion with ritual' - that is, a technology that was tied to the *repetition* of natural forms in order to master and control them. Consequently, 'the results of [this] first technology [appear as] valid once and for all' since 'it deals with irreparable lapse or sacrificial death, which holds good for eternity'; that is, first technology remains tied to the configuration of space and time given by a nature that appears fixed and eternal. In contrast, the second technology of modernity emerges 'when human beings first began to *distance* themselves from nature', a distance that Benjamin understands as the freedom from the reproduction of natural forms, or from the givenness of spatio-temporal configuration.[21] As such, the central feature of this second technology is *not reproduction but invention*, or what Benjamin terms 'play'. For Benjamin, play implies a different mode of temporality since 'it operates by means of experiments and endlessly varied test procedures', and so its results 'are wholly provisional'.[22] Thus, the historical development of technology involves a fundamental reformulation of the transcendental structure of experience, which marks a shift from the static spatio-temporal framework of myth to a new condition characterised by the mutability of space and time.

Contra accounts of the spectacle and the simulacrum, according to Benjamin we miss the historical specificity of modern technology if we privilege technological reproduction at the expense of the new element of 'play' contained within it. But we also miss the different political possibilities which are opened up by this new spatio-temporal condition. Benjamin argues that 'the first technology really sought to master nature' because it lacked its inventive or productive power, and so in a sense always remained subordinate to it. However, the unprecedented productive potential of the second technology means that such an imperative to domination is no longer necessary, in the sense that it has become practically possible to envisage a reciprocal 'interplay between nature and humanity'. Yet if this possibility is made practicable in modern technology, that is not to say that it will be actualised. On the contrary, as Benjamin notes, in fact we persist in 'viewing the second technology in terms of the first' - that is, we persist in 'describ[ing] the goal of the second technology as "mastery over nature"'.[23]

The distinction between a 'first' and 'second' technology may seem to imply a progressive scheme, but in fact Benjamin deploys the terms in a way that allows him to avoid viewing the development of technology in terms of progress. In order to register the extraordinary impact of modern technology, cultural criticism has stressed its unprecedented nature - but as a result it becomes difficult to see the newness of technology in terms other than some sort of linear progression, whether ostensibly regretted or

21. *SW3*, p107, emphasis added.

22. *SW3*, p107. Benjamin's point is not to set up 'reproduction' and 'invention' as mutually exclusive opposites, but to trace how in modern technology reproduction *becomes inventive*. Thus the essay observes that 'lithography marked a fundamentally new stage in the technology of reproduction', since it not only 'made it possible for graphic art to market its products not only in large numbers, as previously, but *in daily changing variations*' (p102; emphasis added).

23. *SW3*, p107.

celebrated. Benjamin seeks to circumvent this problem by deploying the vocabulary of 'first' and 'second' technology *not sequentially* but *simultaneously*: that is, while the second technology of modernity opens up new possibilities for the reinvention of the relationship between social existence and the phenomenal world, it remains bound within the political and social organisations inherited from the first technology. From this perspective, the temporal condition of modern technology is radically heterogeneous, since paradoxically it involves both an unprecedented newness *and* the return of the past. For Benjamin, then, the development of technology is not to be understood as a linear ascent, but as the simultaneous emergence and folding back of different historical possibilities. But as such, technology marks a violently unstable disjunction that runs through the political and social fabric of modernity.

Benjamin's understanding of this disjunction was informed by the events of the First World War, which provides a crucial context both for the *Arcades Project* and for his writing on art and technical reproducibility through the 1930s. For Benjamin, the War manifested the violent consequences of nineteenth-century Europe's failure to come to terms with the space and time of global technology. Instead of responding to the new organisation of the phenomenal world, Europe sought refuge in the spatial integrity and temporal self-identity of the nation-state. In 'The Storyteller' (1936), Benjamin writes that 'with the World War a process began to become apparent which has not halted since':

> For never has experience been contradicted more thoroughly than strategic experience by tactical warfare, economic experience by inflation, bodily experience by mechanical warfare, moral experience by those in power. A generation that had gone to school on the horse-drawn streetcar now stood under the open sky in a countryside in which nothing remained unchanged but the clouds, and beneath these clouds, in a field of force of destructive torrents and explosions, was the tiny, fragile human body.[24]

24. *SW3*, p144.

In his review essay of 1930, 'Theories of German Fascism', Benjamin describes the war in terms that deliberately invoke Nietzsche's *Genealogy of Morality* - as 'the slave revolt of technology'; that is, as the upsurge of a new configuration of space and time that can no longer be bound within the parameters of the nation-state.[25] The attempt by the contemporary mass movement of fascism to re-impose the inherited co-ordinates of experience, and so subordinate the phenomenal world as 'nature', is understood by Benjamin as creating the conditions for an unprecedented upsurge of violence. 'In the parallelogram of forces formed by these two - nature and nation', Benjamin observes, 'war is the diagonal'.[26] The essay argues that if Europe fails to recognise the new conditions of global society - or what it terms 'technology's right of co-determination in the social order' - then 'millions of human bodies will indeed … be chopped to pieces and chewed

25. *SW3*, pp312-21.

26. *SW3*, p319.

up by iron and gas'.[27]

Far from seeing an unalloyed prospect for progress, Benjamin's concept of *Technik* articulates the violent disparity between the technological reorganisation of the phenomenal world and the inherited configurations of human value and meaning. For Benjamin, the unprecedented reformulation of space and time that Marx had identified in the *Grundrisse* and *Capital* had not been met with corresponding changes in the modes of organisation of social experience - or the social, political and legal 'technics' of the modern nation-state. Thus, while the phenomenal world was being reorganised according to new rhythms of acceleration and configurations of spatial porosity, the political and social structures of right, possession, belonging and exclusion remained rigidly bound to an organisation of space and time modelled on the self-identity of an integral and enduring Being. As a consequence, the inherited values that articulate the legitimacy of these technics appear increasingly arbitrary and meaningless. The conflict within *Technik* therefore gives rise to a nihilistic condition within which the attempt to reaffirm traditional social and political forms becomes one increasingly violent option. Benjamin's concept of *Technik*, then, is not an expression of technocratic optimism, but an attempt to map the violent consequences of the failure of modern politics to address the reorganisation of the phenomenal world in technology.

THE DISENCHANTMENT OF THE WORLD

If it is a mistake to think of Benjamin's account of *Technik* as naïvely optimistic, then it is equally misleading to think of it in terms of a pessimistic technological determinism. Indeed, the urgency of Benjamin's claim on our attention lies in his rejection of the inverted Cartesianism which locks recent accounts of technological appearance into dystopian scenarios of total control and political passivity. Instead of rendering experience inert - either by fusing the Cartesian polarity of subject and object, or positing their absolute separation - Benjamin's reinvention of vision develops an alternative paradigm that allows for a *differential return* within visual experience. Or to put it in terms of the conflict between technology and technique: instead of either subordinating a notion of the 'properly human' technique of perception to technology, or positing their absolute incommensurability, Benjamin looked to technology itself as the 'schema' or matrix that would reinvent the very terms of this relation. From this perspective, the Work of Art essay is less about *reproduction* - or repetition with a fixed spatio-temporal framework - than *reproducibility* - or the reinvention of the co-ordinates of space and time in each moment of 'repetition'.

In rejecting the paradigms of progress and decline, Benjamin sought to elaborate an approach that would register the myriad range of possibilities latent in the contemporary condition of technology. To this end, his writing

of the 1930s developed his earlier account of vision and its vocabulary of 'nearness' and 'distance' in the light of the *Trauerspiel* study and the highly inventive, but now largely neglected text, *One Way Street*. In the burgeoning pages of *The Arcades Project* - and especially in the notes and drafts associated with the abortive Baudelaire book such as 'Central Park' (1938/9) and 'Some Motifs in Baudelaire' (1939) - Benjamin articulated his engagement with technology through the dynamic and temporally sensitive conceptual pairing of 'allegory' and 'aura'.[28] However, the tendency within contemporary cultural criticism has been to isolate the term 'aura', and the discussion of 'authenticity' and 'inauthenticity' associated with it, from the broader framework of Benjamin's concept of experience. Not only does this kind of reading tend to obscure the essay's own critique of 'authenticity', but it also implies a straightforward historical progression from a pre-modern 'authenticity' to the modern condition of 'inauthenticity'.[29] This progression is then mapped onto contemporary accounts of the shift from 'depth' to 'surface', so enabling the 'loss of aura' to be assimilated to the familiar claim for 'the loss of the real'. In fact, Benjamin's terms 'allegory' and 'aura' are primarily concerned with the question of temporality, and not with the 'spatial' problematic of grasping a 'real' that lies behind or beneath the illusory surface of technological appearance. Indeed, far from marking a linear historical progression from the pre-modern to the modern, the terms were designed to register the paradoxical return of the archaic *within modernity*.

To understand Benjamin's dynamic deployment of the terms 'allegory' and 'aura' it is necessary first of all to recall their location within the historical emergence of modernity understood as 'the decay of experience [*Erfahrung*]'. Rather than being viewed as a synonym for the 'loss of the real', Benjamin's conception of 'the decay of experience' is best understood in terms of Max Weber's influential account of 'the disenchantment of the world'.[30] According to Weber, both the development of modern subjectivity and the emergence of the scientific world-view are to be grasped as aspects of the withdrawal of divine meaningfulness from the world of appearance. This complex historical process informs the *Trauerspiel* study, which seeks to explore the historical reformulation of experience in early modern Europe through Weber's insight. In Benjamin's terms, once creation is seen as bereft of intrinsic significance or connection, the soul withdraws into the spiritual inwardness of Protestantism, a conjunction described in the *Trauerspiel* study as 'the triumph of subjectivity and the onset of an arbitrary rule over things'.[31] This condition provides the basis for the emergence of the hybrid visual and literary form of allegory, which images the new, dynamic relationship between appearance and meaning. Allegory assumes such an important role for Benjamin because it marks the emergence of a new relationship between word and image - or in Kantian terms, the emergence of a new condition for the schematism of concept and intuition. Thus it implies a reformulation of the transcendental conditions of experience, which in turn

28. Walter Benjamin, 'Central Park', L. Spencer (trans.), *New German Critique*, 34 (1985), 32-58; and 'On Some Motifs in Baudelaire', *CB*, pp107-54. As the essay indicates, the concept of authenticity is itself a misrecognition of the profoundly temporal character of experience. The point is not that works of art were *once* authentic but no longer are, since the concept of authenticity is itself *already* 'inauthentic' or internally contradictory.

30. See Gillian Rose, 'Walter Benjamin – Out of the Sources of Modern Judaism', in L. Marcus and L. Nead (eds), *The Actuality of Walter Benjamin*, London, Lawrence and Wishart, 1998, pp85-117.

31. *OGTD*, p233.

suggests different possible modes of ordering the relationship between the transcendental and spatio-temporal experience.

Benjamin developed his language of nearness and distance in order to describe these possibilities. Within the terms of Weber's conception of the disenchantment of the world, the emergence of allegory signals the collapse of the residual mythic worldview of medieval Christianity, whose eternal categories of meaning and value transcend the human experience of space and time. That is, allegory generates the framework of interpretation from *within the contingency of spatio-temporal experience* - or in Benjamin's terms, it bring things 'closer'.[32] For Benjamin, however, the emergence of such a 'near-sight' points in a number of different directions. At one level, allegory engenders a temporal dynamism, since the categories of interpretation are not given once and for all, but emerge from the flux of spatio-temporal experience. At another level, the very contingency of allegory threatens to slide into incoherence, since it becomes difficult to extract a framework of meaning from the flux that would persist beyond the instant of recognition. In the closing pages of the *Trauerspiel* study this radical instability is shown to generate a powerful tendency towards reversal or 'resurrection', although Benjamin's description of the nature of such reversal is deliberately left open.[33] Such a 'resurrection' might take the form of an unexpected yield or productivity within the disconsolate panorama of the visible; but equally, it might be manifested as the desire for a return to the stability of myth through a violent reaffirmation of the authority of tradition.

In his study of nineteenth century Paris, Benjamin pursues the historical consequences of the disenchantment of the world by mapping the range of social, cultural and political responses to the new spatio-temporal condition. Where the contingency of things once merely characterised the Protestant worldview, now it has been generalised by the *Technik* of modern industrial production to become the very fabric of urban experience. It is in this sense that Benjamin can declare that 'allegory is the armature of the modern', and that in the nineteenth century 'the commodity has taken the place of the allegorical way of seeing'.[34] But this is not to say that the situation of the nineteenth century is the 'same' as that of the seventeenth century, for what separates them is the new spatio-temporal dynamism of second technology. As Benjamin observes at the opening of Convolute G, in pre-modern societies the relatively slow rate of technological development could be assimilated to the changing organisation of human experience. However, 'the transformation of things that set in around 1800' now 'dictate[s] the tempo' of change, a tempo that becomes increasing 'breathtaking'. 'Finally', Benjamin observes, 'we arrive at the present state of things', where 'the possibility now arises' that human experience 'will no longer find time to adapt … to technological processes'.[35]

As we have seen, for Benjamin the transitivity of space and time in modern technology demands a reciprocal transitivity in the organisation of social, political, economic and cultural forms. But as became clear in his

32. See 'Central Park', op. cit., pp41-2.

33. *OGTD*, pp232-33.

34. 'Central Park', op. cit., p49, p52.

35. *AP*, p171.

study of the nineteenth century, instead of matching this transitivity, European societies increasingly sought to master the phenomenal world in an unacknowledged repetition of the struggle waged by the first technology. Benjamin describes this response in terms of 'aura', a term which designates the withdrawal of the transcendental categories from the contingency of the world, and the consequent fixing of the spatio-temporal parameters of experience. While the collapse of the enchanted worldview of medieval Christianity made possible the 'near-sight' of baroque allegory, it also generates a counter-tendency by setting up an opposition between the intense interiority of the Protestant soul and a creaturely world that appears bereft of any sense of connection or inner necessity. The isolation of subjectivity from the world makes possible the withdrawal or *distancing* of the apperceptive frame from its imbrication within the contingency of experience, a process which underlies the description of aura as 'the unique apparition of a distance, however close [the object] may be'.[36] Just as allegory's immersion of the categories of interpretation within spatio-temporal experience marks them as contingent and fleeting, so conversely this auratic 'far-sight' freezes them in an unchanging transcendental structure which 'turn[s] technically determined forms, that is, dependent *variables*, into *constants*'.[37] Benjamin therefore refers to aura as 'a strange weave of space and time', because in the face of the unprecedented mutability of space and time brought about by modern technology, auratic perception fixes the transitivity of modern experience under the static gaze of a mournful and isolated subject.[38]

36. *SW3*, p104-5.

37. 'Central Park', op. cit., p50; emphasis added.

38. *SW3*, p104.

In the Work of Art essay Benjamin develops this understanding of aura through an account of the fate of the work of art in modern technology. As is clear in the early versions of the essay, art demonstrates the convoluted temporal condition of modern technology with particular clarity because it involves both reproduction *and* invention, and so 'is linked to both the first and second technologies'.[39] Just as the nineteenth-century understanding of technology involved the superimposition of a viewpoint inherited from the first technology onto the second, so the post-Romantic conception of art involves the imposition of static perceptual parameters upon the dynamic visual condition of urban modernity. However, as we have indicated, instead of this choice being understood as a reflection of Benjamin's concern with the reformulation of the aesthetic in the Kantian sense - that is, with the spatio-temporal co-ordinates of experience - it has been misread in terms of a much more limited critique of the authenticity of the 'aesthetic realm'.

39. *SW3*, p107.

Read in the context of Benjamin's study of nineteenth century Paris, the concept of aura that features so prominently in his analyses of contemporary technology can be brought into relation with the 'decay of experience' signalled by the emergence of baroque allegory. The two terms 'allegory' and 'aura' must therefore be thought together - but equally, they must not be treated as designating fixed entities or states. In fact, these two terms were articulated together by Benjamin so as to name tendencies or vectors

whose interaction might generate innumerable permutations. From this perspective, these terms neither describe the forward march of technology - from the 'authenticity' of aura to the 'inauthenticity' of allegory - nor a vista of inevitable decline, but point to a range of different possible futures latent in technology.

SEEING THROUGH TECHNOLOGY

If the complexity of Benjamin's conception of the futures of technology has become obscured in readings of the Work of Art essay, it is nonetheless encoded in the very sprawling structure of *The Arcades Project*. Benjamin's arrangement of material was designed less as a fixed historical record, and more as an attempt to rejuvenate contemporary thinking by unfreezing the past. The myriad visual motifs that suffuse the study generate a dynamic retrospective field within which the forgotten potentials of the past intersect momentarily with the changing actuality of the present. A sense of this broader ambition is suggested by the presentation of two nineteenth-century 'image technologies' which for Benjamin represent different possible configurations of technology - the kaleidoscope and the picture puzzle. In imaging the emergence of different possible futures in the marginal objects of the past, this discussion indicates how Benjamin's analysis sought to move beyond the rigid framework of progress and decline.

The kaleidoscope, a popular parlour toy throughout most of the nineteenth century, employs a rotating plane of coloured glass chips and two fixed, intersecting mirrors to produce symmetrical patterns of coloured light. In *The Arcades Project* it provides an image of one possible temporal organisation of technology's dynamic potential, in which first and second technology are superimposed. For Benjamin, the kaleidoscope's transformation of the visible field into a constantly changing sequence of coloured patterns figures the capacity of second technology to rearrange the world of appearances; at the same time, however, the limits which it places on this rearrangement also figure the persistence of the outlook of first technology. For although these coloured patterns appear to dissolve and recombine in inexhaustible permutations, in fact the parameters of visual experience remain bound by a formal symmetry that remains the same: as Benjamin points out, 'with each turn [the kaleidoscope] collapses everything ordered *into a new order*'.[40] In this respect, the kaleidoscope illustrates how the inventive potential of the second technology might be simultaneously realised within *and* limited by the fixed perspective inherited from the first technology. Thus for Benjamin, the kaleidoscope presents a technical arrangement that restricts the futures of visual experience, for although it allows for different patterns of arrangement or form, the configuration which gives the spatio-temporal co-ordinates of form never changes. And as such, the kaleidoscope images the *technological basis* of aura.

In Convolute J Benjamin describes an alternative temporal arrangement

40. 'Central Park', op. cit., p34; emphasis added.

which he identifies with a different 'image technology', namely the printed picture puzzles that could be found amongst the novelties and games sold in the arcades during the nineteenth century. These picture puzzles were composed of a melee of juxtaposed images and text arranged according to different axes of orientation on the page. They challenged the viewer to solve their riddle by trying out different combinations of cognitive interpretation and visual recognition - such as word association, rhyming, visual punning, or the recombinative logic of the anagram - in order to discover the relationship between word and image. For Benjamin, such puzzles constitute a different visual matrix to that of the kaleidoscope, one which anticipates the captioned photograph, photomontage, film, and the chaotic visual scene of the streets and arcades of the modern metropolis - but which also looks back to allegory.

Benjamin frames his discussion of the picture puzzle in terms of Kantian schematism, a context that suggests significant points of comparison with his consideration of the kaleidoscope. Schematism refers to the process underlying judgement, whereby the concepts derived from the table of categories are brought into alignment with the manifold of intuition. For Benjamin, the picture puzzle figures a relationship between word and image - or concept and intuition - that recalls allegory in suggesting a new condition for schematism. As he observes, in the disenchanted world of modernity 'human knowledge … is something piecemeal … in an especially pregnant sense: it is like the jumble of arbitrarily cut pieces from which a puzzle is assembled'. As such the picture puzzle invites a particular approach that is described in terms of the attitude adopted by the allegorist:

> Through the disorderly fund which his knowledge places at his disposal, the allegorist rummages here and there for a particular piece, holds it next to some other piece, and tests to see if they fit together - that meaning with this image or this image with that meaning. The result *can never be known beforehand*, for there is no natural mediation between the two … At no point is it written in the stars that the allegorist's profundity will lead it to one meaning rather than another. And though it may once have acquired such a meaning, this can always be withdrawn in favour of a different meaning.[41]

41. *AP*, J80, 2; J80a, 1; emphasis added.

This passage offers an important contrast with Benjamin's account of the kaleidoscope. As we have seen, while the kaleidoscope images the dynamism with which technology imbues appearance, it also images the fixed perspective set up by the arrangement of glass, mirrors, tube and eyepiece. In contrast, the attitude demanded by the picture puzzle is dynamic and provisional, involving the perennial search for an appropriate configuration of meaning that would match the constantly shifting spatio-temporal co-ordinates of appearance. In Benjamin's hands, the image of the puzzle is not allowed to resolve itself into the search for a final answer, since the

alignment of word and image is itself forever changing, and so requires a new 'solution' in each new context of appearing.

The contrast between kaleidoscope and picture puzzle emphasises the different temporalities latent in technology by describing different modes of schematising concept and intuition. In the kaleidoscope, the relationship between visual experience and discursive meaning is fixed within a static transcendental frame, in which the forms of intuition - space and time - and the categorical structure of meaning are given. In the picture puzzle, the frame itself emerges from the contingent juxtapositions of meaning and image which occur in the distracted gaze of the allegorist, who 'tests' different meanings against ever new visual arrangements. Thus, while the kaleidoscope offers a fixed response to the mutability of space and time in modern experience, the picture puzzle responds with a temporal openness that matches the transitivity of second technology.

This comparison provides a vital context for reading the Work of Art essay, for it is precisely this conception of 'testing' that underlies its account of the significance of film. In film, the essay argues, images are not subordinated to a prior framework or canon of coherence and meaning, but instead 'the way each single image is understood [is] prescribed by the sequence of all the preceding images'.[42] Thus, the spatio-temporal co-ordinates of formal relation and meaning are themselves produced through the sequencing and interrelation of images, rather than being a function of a fixed transcendental framework. Or, in the vocabulary of nearness and distance, film immerses the apperceptive frame within the contingent arrangement of appearances, rather than imposing a static transcendental framework from without. The essay illustrates this idea through an analogy between the film camera and the surgeon: like the surgeon, the camera 'penetrates deeply into [the] web' of the phenomenal world, cutting it up into 'manifold parts' which 'are assembled under a new law'.[43] In these terms, the law of visibility is not fixed and established prior to experience, but is itself open to renegotiation and reinvention in technology.

The central significance of film in the Work of Art essay lies in its capacity to figure a different kind of response to the mutability of space and time in technology. Instead of appealing to tradition or to a notion of the 'properly human' to organise interpretation in the face of technological modernity, the technology of film generates a perceptual matrix that can respond to the porosity and transitivity of the phenomenal world without fixing it within a static transcendental framework. Thus, rather than opposing the transitivity of second technology with the fixed co-ordinates inherited from the first technology, the temporal openness of film offers a response that is reciprocal. Film therefore points to different political, social, and legal technics that would, in the words of another essay, move 'to correct the incapacity of peoples to order their relationships to one another in accord with the relationship they possess to nature through their technology'.[44]

42. *SW3*, p108.

43. *SW3*, p116.

44. *SW2*, p320.

Whether couched in terms of progress or decline, all varieties of technological determinism involve the subordination of the political to technology. In contrast, Benjamin's concept of *Technik* envisages the speculative non-identity of politics and technology, where technology reinvents the very condition of the political, while the political discovers or invents different possibilities in technology.[45] And as this comparison suggests, technological determinism not only subordinates politics, but also suppresses the heterogeneity of technology. Benjamin's concept of *Technik*, on the other hand, was designed not only to articulate a political response *to* technology, but also to illuminate the different political possibilities that may be latent *in* technology.[46]

The tendency to read the Work of Art essay in isolation from the study of Paris has obscured this more complex conception of the relationship between technology and politics. Indeed, the ultimate arena for the reciprocal interplay of politics and technology in *The Arcades Project* is the city of Paris itself, and the study can be read as an exploration of the reformulation of the *polis* in technology. It is the new condition of technology that enables Baron Haussmann's destruction of medieval Paris and his rebuilding of the city - yet the structuring of social life that emerges from this process in not simply an ineluctable function of technology, but is decisively shaped by economic imperatives and political decisions.[47] Thus, while Haussmann's project saw the destruction of the architectural fabric of tradition, at the same time it sought to impose traditional structures of authority and possession upon the transitivity and porosity of the modern metropolis. It is this paradoxical return of the archaic in the modern that Benjamin identifies in the monumentalism of Haussmann's Paris. As Benjamin observes, 'Haussmann's predilection for perspectives, for long open vistas, represents an attempt to dictate art forms to technology' - in this case the 'technology of city planning'.[48]

At the same time, however, technology's recasting of the social and economic fabric of the city through the nineteenth century also saw the emergence of new and very different configurations of experience. The arcades, which mostly predate Haussmann's accession to the prefecture, presented to Benjamin a particularly significant counterfactual to set against the shape of the city that emerged from the process of Haussmannisation. For while the new boulevards, parks and department stores functioned to draw all the more firmly the traditional distinction between public and private, the arcades fostered a spatio-temporal ambiguity which threatened to dissolve such rigid social demarcations. That the arcades were unsuccessful only added to their interest for Benjamin, since although some were dismantled and demolished, most were preserved in varying states of dilapidation and disrepair. For Benjamin, the ruined persistence of the arcades within the new configuration of Paris attested to the heterogeneous

45. My use of these terms follows the notion of the 'speculative' presented by Gillian Rose in her *Hegel Contra Sociology*, London, Athlone, 1979, pp48-9.

46. However, Howard Caygill argues that although Benjamin approach sought to maintain an openness to futurity, the conclusion of the 'Work of Art' essay uncharacteristically collapses this openness 'with a call for an either/or decision: either fascism or communism'; see Caygill, *Walter Benjamin: The Colour of Experience*, op. cit., pp32-3.

47. In the wake of the revolutionary street fighting of 1848, the long, wide boulevards which Haussmann drove through the working-class districts were designed to clear their populations from the centre of the city, to provide speedy transit for troops, and to make the erection of barricades impossible; see M. Berman, *All That Is Solid Melts Into Air: The Experience of Modernity*, London, Verso, 1983, pp150-52.

48. *AP*, E2a, 7.

character of modern experience. If the political correlate of the decay of the arcades was the destruction of working-class communities and the demobilisation of the bourgeoisie, the persistence of the arcades within the fabric of Paris embodied the residues of a 'dream world', the memory of different possible futures that continue to haunt the perceptual co-ordinates of the present.

The convoluted temporality figured by the arcades illuminates the temporal orientation of Benjamin's discussion of film in the Work of Art essay. Benjamin is well aware that while film points the way towards a reciprocal relationship between humanity and technology, its capacity to effect this reciprocity remains latent, since it is bound within inherited social, political, and economic forms. Indeed, wherever the essay discusses the current state of film it draws attention to the disparity between film's transformation of the conditions of social visibility, and the lack of any corresponding reorganisation of the political and economic atomisation that structures social life. Thus, as the essay makes clear, the new detachability and transportability of the image subordinates the appearance of the social world to the co-ordinates of private need and desire, but without a reciprocal adjustment of the distinction between 'public' and 'private' that organises the space of politics. Paradoxically, then, the technological drive to 'bring things closer' in fact functions to demarcate all the more firmly between the aggregate of atomised individuals - as 'the public' - and those who appear before them. As the essay observes, 'this results in a new form of selection, from which the champion, the star and the dictator emerge as victors'.[49]

49. *SW3*, p128.

There is, then, another sense in which the visual motifs of *The Arcades Project* provide a vital context for reading Benjamin's analysis of contemporary technology. In *The Arcades Project*, Benjamin discovers anticipations of the futures of technology not in the technological marvels of the age which had been celebrated from the moment of their inception - the steam locomotive, the telegraph, photography - but in the marginal and the unsuccessful: not only in the arcades themselves but, as we have seen, in such amusements and parlour games as the kaleidoscope and the picture puzzle, which for a time packed the shop windows and display cases of the arcades only to be discarded in favour of the latest novelty. This preference for the marginal and the ephemeral was not a romantic idiosyncrasy, since for Benjamin the measure of failure and success is not an absolute, progressive scale but a temporal index: what is successful may become outmoded once conditions change, and what was unsuccessful in one context may become successful in another. If Benjamin looked to film for an image of a different structuring of the space and time of experience, his gaze was not focused exclusively on its present state, nor on the particular future that *this present* implies. As well as the prospect presented willingly to the contemporary viewer, Benjamin's gaze also sought those possibilities that remain latent and unrealised, yet which - like the arcades - image the unforeseeable futures of technology.