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Dissolving Spectators: Lantern History and The Royal Polytechnic Institution

This paper dwells on a historiographical problem highly pertinent to a specific section of lantern history, namely that which covers the dissolving view shows and their spectators at The Royal Polytechnic Institution in the early 1840's. The Polytechnic lanternists capitalised on the development of more powerful forms of lighting, which made possible the performance of lantern shows to much larger audiences than before. At the height of the Polytechnic shows' popularity (the advent of their dissolving views in the early 1840's), the 500-seat theatre was often filled. As a historiographical subject, the Polytechnic dissolving view shows epitomise the recurrent conundrum that poses itself: how does one accurately delineate the experience of a mass audience, particularly when faced with a lack of substantial primary evidence? This essay aims not so much to resolve that problem, but to tentatively stretch its boundaries, and, in doing so, project some light into a rather obfuscated area of lantern lore.

In his review of Laurent Mannoni's *The Great Art of Light and Shadow*, Brian Winston points to the perennial and insistent question facing the historian of cinema's inception: 'why 1895?'[1] Winston characteristically suggests that

> the ingenuity of Mannoni's great men is beside the point, because it wasn't until the 1890's that an urban audience existed in sufficient numbers to nail cinema to the screen.[2]

There is a sense here that Winston's argument, although not teleological, is circular. His account of the actions of a mass audience (all but ignored by Mannoni) refers us prematurely back to the machinery involved. He chides Mannoni for neglecting the 'social context' of the technology, yet, perversely, his own treatment of that context immediately reverts to the technological apparatus as object. The audience's size and relevance, its 'sufficient numbers' are measured purely by the facilitation of cinema projection. Moreover, the operative role of spectator activity is displaced onto an abstract trope figuring the fixture of a 'fourth wall'. The pre-eminence of the cinematic technology paradoxically elicits from Winston a description of the audience's role more in terms of manual labour than spectatorship.

Mannoni's technological determinism and Winston's cultural determinism are generally at cross purposes. Nevertheless, the above quotation suggests an immanent tendency not uncommon in visual media historiography, to delineate cultural and historical phenomena through a language denoting relevant technologies. In a way that Mannoni is not, Winston is concerned with conventions, codes of cultural practice embedded in an historical tradition of spectatorship. Yet, at the same time, Winston cannot extricate his diction from tropes invoking the technology related to these systems.

If we historicise an audience as Winston has done, we at once inflect our discourse with not merely an apposite, but a referential terminology. The worst extreme is that we no longer experience a recreation of the past, but instead an incantation of words connotative only of themselves. The immediate limitation, however, is that we are recycling a generalising nomenclature which abstracts the spectator into a concept adequate to a delimited

technological vocabulary. In other words, we begin to concern ourselves with a highly theorised individual, the spectator, ideally representative of millions of subjectivities, and so not truly representative at all.

If we are to concern ourselves with spectators - that is, spectators as a multitude (in this case, the audience of the Polytechnic dissolving view), this issue, of which Winston's argument is paradigmatic, must be confronted. For in few cases has the referential mode/stigma been more exclusively prevalent, be it tacitly or unconsciously so, than in the historiography of The Royal Polytechnic Institution's first few years. As writers and historians have sought to discuss the dissolving view experience, the ontology of the dissolve itself has consistently infiltrated their prose. This must be addressed.

The method with which I propose to tackle this problematic is analogous to the process Chas is subjected to in the 1970 Nicholas Roeg/Donald Cammell film, *Performance*: that is, in order to posit a new identity for something, (here a mode of historiography), the present identity must be self-consciously stripped: it must be explored to its absolute limits and thus exfoliated.

We should deal then with the truistic typological divide between the Phantasmagoria and the Royal Polytechnic Institution dissolving views. Here the bag of illustrative examples is brimful. Particularly indicative is this excerpt from the 11th February 1843 edition of *The Illustrated Polytechnic Review and Weekly Record of Science, Fine Arts, and Literature*:

> Although the [dissolving views] are the offspring of the foolish and unmeaning phantasmata of the distant past, yet we now behold them no longer administering to the vulgar and depraved appetite, alternately exciting the laughter or terror of the beholders…nor is the influence upon the mind more varied, than between the vile "Phantasmagoria" of past years and the dissolving views of the present day.[3]

Compare this to an article by J.S. Coyne, from *The Illustrated London News* dated 25th December 1858. It details a highly fictionalised children's Christmas lantern show; it focuses on the events of the room, as if the room were the lantern itself.[4] The elderly Mr. Stickjaw, a Clapton schoolmaster, is reported as stating that

> He thinks nothing of the beautiful dissolving views at the Polytechnic, because he knows it is all a trick; but he loves to expatiate upon the wonderful effects of the Phantasmagoria, which he remembers having seen about the beginning of the present century.[5]

I have selected this self-evidently caricatural piece, because it thereby heightens the apparently very real dichotomy described in *The Illustrated Polytechnic Review*: a dichotomy that separated the Phantasmagoria and, what has been considered in many respects its successor in scale, the show at The Royal Polytechnic Institution. In Coyne's fictional *Illustrated London News* article the scientific aspect of the Phantasmagoria, which inhered in Robertson's claim to expose 'the baneful practice of impostors',[6] now belongs to time immemorial. What remains of the Phantasmagoria is consigned to antiquity, its mythology satirically considered a signification of senility. The generational division of tastes, then, begins to resemble the Polytechnic season dissolve, which renders, for example a cottage bathed in sunlight into a cottage besieged by snow. Within the same topographical frame – that is, the room where the lantern show is about to be delivered – there is the autumnal Stickjaw merged with his spring-chicken charges, a group of children representing the

generation of the 'beautiful' dissolving views, yet with no apparent experience of the Polytechnic dissolves..

Such a notion of duality in a unified diegetic arena is intrinsic to the unsubtly theorised mechanics of the Biscenascope, (the type of lantern used for the earliest Polytechnic dissolving views,) as exemplified by the 12th February 1842 edition of *The Mirror of Literature, Amusement, and Instruction*:

> Two optical arrangements in the same plane, and which had a double jet, igniting the one lime cylinder, were placed in the interior of the lanthorn, for the purpose of effecting a double illumination: by this arrangement, objects for view would be thrown right and left, were it not that two looking-glasses are placed at right angles, so as to throw the object reflected in front.[7]

This sense of merging disparates is even more evident in the afore-mentioned *Illustrated Polytechnic Review* excerpt. There, on the one hand, we have an accusation against the Phantasmagoria spectator, and on the other, a claim for the Polytechnic observer: or rather, what evolves into a would-be claim. To misappropriate a Thomas Carlyle metaphor, what the article calls 'phantasmata' and 'phantasmagoria'[8] are the 'Enchanter's-rod of Wickedness and Folly', which dissolve into the 'Aaron's-rod of Truth and Virtue' – that is, the dissolving views at the Polytechnic.[9] Concurrently, the spectators have dissolved from the 'vulgar' and 'depraved' into…into… and there we become stuck. Because of the negative comparison involved, whereby the Polytechnic observer is only an ideal and, therefore, ethereal foil to the depravity of the Phantasmagoria observer, the Polytechnic spectator remains an indescribable abstract. As with the cottage-in-sunshine-into-cottage-in-snow dissolving view, a referent is certainly present – that is, a constant, such as the cottage, by which we can measure the extremity of change brought about by the dissolve. The constant is, for sure, the spectator, but the dissolving-view spectator is invisible to us – his or her seat lingers unfilled. We are left wondering exactly what kind of appetite the Polytechnic dissolving views administered to.

Unfortunately, as a record of spectators, the *Illustrated Polytechnic Review* article is in no way idiosyncratic. If we direct our attention to pictorial representations of the various Phantasmagoria shows, and of the Polytechnic shows, respectively, time and time again we encounter the same inconsistency. Engraving after engraving emphasises the audience at, say the Cours des Capucines Phantasmagoria shows, their extreme reactions to Robertson's projected ghouls, dramatised nearly to the point of hyperbole. Conversely, there are a number of paintings or engravings of the Polytechnic lecture theatre where the dissolving views were exhibited (most date from the late nineteenth century, when the popularity of the Polytechnic lantern shows was in decline), but these tend either to ignore the audience or to depict an empty hall, so we may count ourselves fortunate if we catch a mere glimpse of a Polytechnic audience.

It is not sufficient to argue that a lack of sensation in the dissolving view experience accounts for this difference. During the early 1840's, the Polytechnic views were as sensational as Pepper's Ghost became twenty years later on the same stage. Moreover, the depictions, both pictorial and literary, of the audience at any 1840's lantern show other than the Polytechnic views are seemingly innumerable. As Winston points out, there has been 'much writing in English about how an audience learned to be an audience throughout the 19th century.'[10] Once again, a dissolve has occurred, although on this occasion, in a slightly different semantic sense – that of dissipation, or fade out. Historiographically, it seems that when the

1840's lantern spectator entered the Polytechnic lecture theatre, he or she, along with 499 others, anticipated a later Polytechnic show and spontaneously combusted.

Why this is so is an issue I will return to, but meanwhile, how do we go about filling the 500 Polytechnic seats? How do we stitch into our historical intertext an envisaged, yet empirical, narrative of the Polytechnic lantern spectator, built around his/her experiences within entrenched social mores? Do we, for instance, take a rigidly theorised, historical spectator as drawn from other conventions of viewing during the 1840's? Do we consider what it might have been like to watch, say, someone use the Polytechnic diving bell, and then go and watch the dissolving views? To do so would either mean applying a theoretical liposuction to the fat of well-illustrated spectator practices, in order to feed our appetite – which would surely be a haphazard application at best – or utilising an approach which depends less on particular evidence, and more heavily on theorised generalisations, such as Jonathan Crary's. Crary's template is less a spectator, more an observer,

> though obviously one who sees…more importantly one who sees within a prescribed set of possibilities, one who is embedded in a system of conventions and limitations.[11]

The problem is that, although he perceptively acknowledges the observer as an 'effect of an irreducibly heterogeneous system of discursive, social, technological, and institutional relations', his *Techniques of the Observer* does not readily proffer encouraging results of an application of this theory. One senses that Crary too often allows a 'discursive' (and hence highly limited in a socio-economic field) position to stand for a social one.

Do we, then, allow a more general cultural context to determine? To do so would arguably be to mire research in the none-too-helpful polarity of Phantasmagoria or the Enchanter's-rod of Wickedness and Folly on one side, Natural Philosophy on the other and Carlyle somewhere in the middle.

However, a timely mention of Carlyle will return us to the question: why are the Polytechnic seats empty? And here also lies our path to filling them. Of the men of his time, Carlyle wrote

> not for internal perfection, but for external combinations and arrangements, for institutions, constitutions, - for Mechanism of one sort or another, do they hope and struggle. Their whole efforts, attachments, opinions, turn on mechanism, and are of a mechanical character.[12]

In short, if we adopt Carlyle's tirade, we can read The Royal Polytechnic Institution as the crucible of a social practice, for the study of which, the distinction between cultural determinism and technological determinism can no longer exist. Furthermore, subjectivity of the spectator no longer strictly counts, for the lecture theatre becomes a machine in itself, its audience 500 pairs of eyes in a battery. Paradoxically, like this we no longer read a spectator's experience by the spectator, but by the architecture of the theatre, the lantern equipment and screen, the music played, the lecture given and the slides shown.

It was in England at least, The Royal Polytechnic Institution which commodified the quantification of the magic lantern as a normalised science *per se*. The dissolving views that the Polytechnic pioneered, and which, for forty years, constituted the main attraction in its repertoire, were offered as the very epitome of that science. Of course, this is not to suggest that the dissolving views were unavailable to lanternists who worked on a much smaller scale. However, due mainly to architectural idiosyncrasies and incomparable technical accomplishment, the Polytechnic did offer a highly unique experience.

The Institution's purpose-built hall, with its proscenium arch bespoke a secular interface between the lecture theatre model and that of the popular drama theatre. The curved seating arrangements at the Polytechnic focused its audience's attention on the single screen, which, in mimicry of a painted canvas, composed its images in a uniform, rectilinear space. The source of the projection also went only ever partially disguised. When that source caught fire, as it often did in the 1840's, it became the central attraction. Thus, viewers like Coyne were left assured of authorial emanation, and so were convinced that here was a beauty produced by artistry, as opposed to the indistinctness of the 'effects' worked in the Phantamagoria.

However, despite, or perhaps because of, the ineluctable notion that the spectators were so many parts in a mechanical process, operated on by a predominant natural philosophy, the dissolving views themselves were, at least in the modern sense of the word, phantasmagoric. In them, time flows with a pace only found in dreams. Separated, the slides are more or less 'realistic' representations, but restructured into the temporal dimension of the dissolve, the essentially natural phenomena often depicted, such as changes of season, become meteorological vagaries, possessed of a swiftness found never within nature, and, more importantly, never witnessed by nineteenth-century man/woman, other than in a dissolve or in his/her imagination. Or, in Carlyle's terms, 'this deep, paralytical subjection to physical objects comes not from Nature, but from our own unwise mode of *viewing* Nature.'[13]

One can situate the Polytechnic dissolves in a history of late Romantic, popular culture, though not quite in the manner one might at first expect. The dissolves often imaged foreign lands, and, presumably for greater verisimilitude, were usually based on works by painters who had travelled to the country in question and seen with their own eyes the elements that compose the painting. However, the actual experience of a Polytechnic dissolve compared not to the physical Romantic vision, where the subjective wanderer has toured, and captured with his/her own eyes the ideal perspective of natural phenomena. Instead it related to the version of Romantic subjectivity wherein the psyche is toured. Yet one must constantly bear in mind the sheer size of the Polytechnic screen, coupled with the intensity of gaze demanded by the seating arrangement. The IMAX of its day, 35 feet from the lanterns, with an area of 648 square feet, the screen announced itself as the all-encompassing look of 'nature'. In other words, as the screen explored the imaginative, it simultaneously represented it as a natural exterior.

This can be interpreted in two, equally arguable ways. If we read it as the process of construction (touring the psyche) made invisible (presented as if an image of the natural world), then the experience of the Polytechnic dissolving views was phantasmagoric, in Adorno's terms of 'the perfection of the illusion that the work of art is a reality *sui generis* that constitutes itself in the realm of the absolute.'[14] One could alternatively point out that the dissolves mimetically explored the natural world *through* the subjectivity of the psyche, which in modernist art is the only way to reach a representation of reality. In this interpretation, the ellipsis of the dissolves is equitable with what Christopher Butler terms 'elliptical apposition' in modernist poetry.[15] Drawing on Hulme's notion that 'two images form what one may call a visual chord [and] unite to suggest an image which is different to both',[16] Butler argues that

> this fundamental modernist technique of elliptical apposition demands brevity, and is usefully incompatible with the discursive philosophising and moralising that was thought to be the bane of Victorian poetry.[17]

The near instantaneity of the dissolve certainly worked against the linearity of the lantern show lecture, though if one is to use Hulme's metaphor, the essential temporal sequentiality of the dissolve must concurrently be recognised, so that it becomes a 'visual chord', but one played in arpeggio.

Of course, none of these possible experiences for the spectator are fully verifiable, and one should only proceed tentatively. We cannot make the dissolving spectator visible, but by examining The Royal Polytechnic Institution as it mechanically operated in the 1840's, one can arguably discern an outline. Indeed, it is only by returning our study literally to the technologies involved, that we escape the confines of certain referential tropes, and hence begin to loosen the constrictions on the historiography of a Royal Polytechnic Institution dissolving view spectator.

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[1] Brian Winston, 'Fumbling in the dark', *Sight and Sound*, vol.1, issue2, February 2001, 10-11

[2] Ibid., 11

[3] Anonymous, *The Illustrated Polytechnic Review and Weekly Record of Science, Fine Arts, and Literature*, vol.1, no. 6, 11th February 1843, 97

[4] It is an oft-found idea in articles from this period that, during the show, the room became the lantern. The room as lantern is more than a metaphor; it describes the way the projected discourse affects the behaviour of the audience and colours the writers' perceptions of the room as a whole. *Pace* Jonathan Crary, it strongly implies that the interiorised model of the camera obscura was anything but dead in the mid-nineteenth century.

[5] J.S. Coyne, 'Scenes in a Magic Lantern', *The Illustrated London News*, 25th December 1858, in Stephen Herbert (ed.), *A History of Pre-Cinema Vol. 2* (London: Routledge, 2000), 243

[6] Robertson, quoted in Laurent Mannoni, Donata Pesenti Campognoni & David Robinson, *Light and Movement: Incunabula of the Motion Picture* (Paris: Le Giornate del Cinema Muto, 1995), 117

[7] Anonymous, *The Mirror of Literature, Amusement and Instruction*, vol. 1, no. 7, 12th February 1842, 98

[8] Anonymous, *Illustrated Polytechnic Review*, 97

[9] Thomas Carlyle, 'Signs of the Times', in Alan Shelston (ed.), *Thomas Carlyle: Selected Writings* (London: Penguin, 1971), 61

[10] Winston, op. cit., 11

[11] Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century*, (London: MIT Press, 1992), 6

[12] Carlyle, op. cit., 67

[13] Ibid., 83

[14] Theodore Adorno, *In Search of Wagner* (London: Verso, 1981), 85

[15] Christopher Butler, *Early Modernism: Literature, Music and Painting in Europe 1900-1916* (Oxford: OUP, 1994), 211

[16] T.E. Hulme, *Further Speculation*, ed. Sam Hynes (Minneapolis: 1955), 73, quoted in Butler, 1994

[17] Butler, op. cit., 211