

‘Spleen of a Cabinet Minister at Work’: Exhibiting X-Rays and the Cinematograph in Ireland, 1896.¹

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The kinematograph, the bicycle, electric tramcars, labour-saving contrivances, etc, are not susceptible to poetic treatment, but are, in fact themselves poetry, not without a kind of suggestiveness, of a scientific age, with which the poetry of Greek and Hebrew tradition vainly endeavours to vie. It is no wonder that an age which has achieved this concrete type of poetry should be content with an attitude of simple politeness towards those dreamers who walk with their heads in a cloud of vision [...] The epics of the present are the steam engine and the dynamo, its lyrics the kinematograph, phonograph, etc., and these bear with them the hearts of men as the Iliad and the Odyssey of former days uplifted the youth of antiquity, or as the old English ballad expressed the mind of a nation in its childhood.

John Eglinton published these comments in his debate on Irish national literature with visionary poet W. B. Yeats in the *Daily Express* in 1898.² ‘This message was apparently lost on Yeats,’ comments Luke Gibbons, ‘for whom even the neon lights on O’Connell Street were signs of Armageddon’.³ Eglinton’s message that in an age of technological marvels people merely indulge poets was lost in many senses: lost as one minor and relatively undeveloped element of his argument; lost in the irony that it occurs in the course of a vigorous debate on literature; lost to a widely held belief in the importance of poets to the history of the period; and largely lost to Irish cultural studies as the words of a minor character in his engagement with a major canonical figure. The appearance of the moving-picture projector among the technologies that ‘b[ore] with them the hearts of men’ in 1898, however, holds particular interest for Irish film history. What was the cinematograph’s relationship with its first Irish audiences? Was it only or primarily as a machine that the device engaged these audiences, and if so, at what point did the early cinema’s opaqueness as novel technology give way to a transparency that shifted the focus to the image on the screen? While early film shows appear to have been popular, what place did they occupy in the Irish imaginary?

The year 1896 provides a useful starting point for a discussion of the reception of early cinema in Ireland. When one looks at contemporary newspapers for evidence of the terms in which the first film shows were presented to the newspaper-reading community, one finds that in 1896 the Irish public received far more information on X-rays, or early radiography, than of early cinematography. Both of these new visual technologies were presented first and foremost as scientific novelties worthy of a popular audience, but while X-rays became increasingly affiliated with medical science, cinematography became predominantly an entertainment medium.

From a technical point of view, the first successful public exhibition of projected moving pictures in Dublin was at the Cyclopa charity fete on the Ballsbridge show grounds of the Royal Dublin Society between 19 and 25 May 1896.⁴ A show the previous month at the Star Theatre of Varieties, while commercially successful in the numbers attracted, did not meet the expectations of at least some

members of its audience. A reviewer with the *Irish Daily Independent* commented that

a little disappointment was experienced in connection with the display of the cinematographie [sic]. This instrument is undoubtedly capable of accomplishing great things, but it seemed to be out of order, and the pictures which it showed were much below the level of excellence which the kinetoscope or the zoopractiscope [sic] have already showed to music hall audiences.⁵

The *Irish Times*' reviewer made similar comments but added that the audience 'regarded the exhibition with interest, and applauded it'.⁶ The manager of the Star, Dan Lowrey, noted in the theatre's engagement book that there was '[n]ot enough light on the pictures'.⁷

The exhibition of Robert Paul's animatographe projector at Cyclopia met with widespread approval in a context in which it could be compared directly with other state-of-the-art novelties. Among the biggest attractions of this large annual fete, patrons could stroll around the mock-up Dutch village; ride the water chute, switchback railways, and merry-go-rounds; ascend in a hot-air balloon; and attend the Cafe Chantant, the Pembroke Concerts, and the Olympia Variety Entertainment. Other moving-picture and projected visual novelties vied for attention with the animatographe. A kinetoscope synchronized to a phonograph showed a 'champion high-kicker perform[ing] a vigorous and graceful dance to the accompaniment of an orchestra'.⁸ Projection on a spectacular scale issued from the Lantern Tower:

From this, as soon as the darkness had come over the land, numerous lantern slides were projected on to an immense linen screen, some 30 feet-square, at a distance of fully 150 feet. It is said that the screen is the largest one of the kind ever used in Ireland, and one can easily credit the statement. A display of the kind, on account of its rarity, is one of much interest, and that of last night attracted very general attention.⁹

While impressed, the *Dublin Evening Mail* reviewer expressed reservations because '[m]ixed with the slides dealing with subjects of general interest were many others which partook of the nature of advertisements, and were calculated to make the spectator feel that he was being more or less imposed on'.¹⁰

Even in this dazzling company, the animatographe stood out. Reporting on the first day of the fete, the *Irish Times* revealed that the projector showed 'many life-like "living photographs"' and that 'their rapid succession and dexterous manipulation produced a most pleasing illusion'.¹¹ The *Independent* recorded that by the end of the second day the 'animatograph was so well patronised that an extra performance was given a little before 10 o'clock'.¹² By the third day, the *Independent* attempted to explain enthusiasm for the new device:

From the first exhibition yesterday the animatograph drew large crowds of patrons. This is certainly, of the many things worth seeing at Cyclopia, one of the most entertaining. It is more so than the kinetoscope, for it shows the figures life size, and so imparts additional realism to the pictures.¹³

If cinematography was the most favoured visual attraction at Cyclopia, another spectacle had a far tighter grasp of the public imagination, at least as far as the daily

newspapers reflect it. Among Cyclopa's well-patronized scientific attractions was one that had beaten cinematography to the title of the 'new photography': the X-rays. As a souvenir of the fete, '[m]any had the skeletons of the hand photographed under the new process'.¹⁴ The relatively small amount of press coverage given to X-rays at Cyclopa is in stark contrast to the abundance of stories devoted to them in Irish newspapers in the first half of the year, far more than those dedicated to the development of moving pictures.

Wilhelm Röntgen's discovery was first publicized by the Viennese popular press on 5 January 1896, and appeared in the following morning's London *Daily Chronicle*.¹⁵ The first Irish account of what was variously described as the new photography, the new light and even oxymoronically invisible light seems to have appeared in the *Dublin Evening Mail* on 10 January. Because many of the public exhibitions in Ireland were conducted within a scientific paradigm and so attempted to reproduce Röntgen's experiments, it is worth quoting this first article in some detail. It reveals that Röntgen's findings consist

in the discovery of a new conductor of light. Professor Rontgen, the well-known Professor of the Wurzburg University, has succeeded in photographing metal weights shut up in a wooden box, without showing anything of the casing on his negative. He is also said to have photographed the bones of the hand, all the soft parts being invisible. He photographs by means of light of an exhausted Crooke's pipe, through which an inductive current is passed. The discovery appears to be so far that the rays in question penetrate wood and flesh, but not bone or metal. It is surmised that photographs of the kind mentioned may have a valuable practical application in the discovery and location both of fractures and of bullets. If this discovery is sustained it will certainly take a first place among the many marvels of this scientific age.¹⁶

This short article gives the bare bones of Röntgen's rays: they are emitted by a Crooke's vacuum tube through which an electric current passes; they are akin to light in producing an image on a photographic plate, but differ from it in penetrating certain solid substances; they can show metal objects in a wooden box and the bones through the flesh; and their practical application seems to be in detecting broken bones and metallic objects such as bullets or needles lodged in the body.

Over the next few months, the newspapers and journals reported further developments as other researchers sought to confirm and extend Röntgen's findings. The papers also editorialized on their possible significance. The volume of X-ray stories in the *Dublin Evening Telegraph*, which seems to be the Irish paper most interested in X-rays, may give a sense of public interest in the early part of the year. Its coverage began on 11 February, and in the seventeen working days to the end of that month, it had published 12 items on X-rays. In the same period, it published one moving picture story.¹⁷ The X-rays were discussed in editorials¹⁸ and in substantial feature articles in the Saturday editions of the dailies.¹⁹ The content of these stories already locates the discovery firmly in the institutional frameworks in which it is still embedded: in medical diagnosis, in security applications and in industrial-scientific contexts. The medical uses extended from the surprisingly large number of metal items that were secreted in people's bodies to the investigation of mummies.²⁰ Of security uses, the defusing of anarchists' bombs, or 'infernal engines' as they were called, is of particular note²¹; and industrial-scientific applications include the detection of fake precious stones and of additions to Bordeaux wine.²²

Several reports claimed that the interest in X-rays was not limited to the scientific, medical and photographic communities. ‘The much talked about X Rays’, began a report in the *Dublin Evening Mail*,

have penetrated into the centres of the medical and scientific circles of Dublin, and are illuminating the minds of servants and students alike – to say nothing of the ordinary observant thinker – with irrepressible amazement and curiosity at the remarkable developments of Roentgen’s great invention.²³

One clear indication that the rays had caught the imagination at least of what were called the ‘fashionable classes’ is the fact that a man wearing a skeleton suit and styling himself ‘Rontgen X Rays’ won first prize in the fancy dress cycle parade (cycling was a middle-class obsession at the time) at the Carlisle grounds in Bray in August.²⁴ It is also singalled by the way in which reports of the discoveries were taken up as the year progressed by feature columns, editorials, humorous columns and cartoons. At times, it is difficult to distinguish whether a humorous article is discussing real scientific research or exaggerating for comic effect. One article described how an English photographer supposedly set about photographing his thoughts:

First, he has drawn a large triangle on a sheet of paper. Secondly, he has gazed on that triangle until neither he nor geometry could stand much more of it. Then he has gone into a dark room and stared through a vacuum at a photographic plate until he has felt sick, keeping the image of the triangle in his head the whole time. Finally he has developed the plate, and found thereon a light impression, the size of a pin’s head. This is his thought. It is not a bit like a triangle, but it is merely the photographic reproduction of the retinal reflection and projection of the thought image of the image of a thought of a triangle.²⁵

Despite the clear comic intent of this article, it seems that there was serious speculation on how X-rays might be used to photograph thought.²⁶

In this context of the apparent ubiquitousness of X-rays, it is difficult to explain the reversal in relative interest by the papers and perhaps by the public in the Röntgen rays and in cinematography at Cyclopa. The success of the animatographe was such that the exhibitor at the fete, Charles Augustus James, was able to advertise it as the ‘wonderful triumph of Scientific Research, [...] which has been patronised by the Nobility and Gentry of Ireland at Cyclopa’, when he presented it at his Henry Street, Dublin, variety show, the World’s Fair Waxworks, in the week following the fete.²⁷ While noting that it is a ‘marvellous invention’, a review of the World’s Fair shows focuses on the details of some of the ten sensational films presented rather than on the technical details of the apparatus as is frequently the case with the X-rays.²⁸ This seems to be the crux of the difference between the two technologies. While both were able to produce spectacular visual artefacts, the images produced by the cinematograph were far more multifaceted in their appeal to an audience.

Unlike moving pictures, X-rays had a very brief period as a fairground or variety theatre novelty. In England, for example, William Friese-Greene, an inventor who had experimented with a motion picture camera in the early 1890s, brought his X-ray apparatus briefly onto the stage of the Old Oxford Music Hall in 1896.²⁹ Among other showmen around the world who exhibited X-rays are Mark Blow in Australia, Yokota Einosuke in Japan, William Paley in the United States and Jasper

Redfern in Britain.³⁰ While X-rays could produce spectacular visual results, they failed to find a long-term place as an entertainment attraction.

In his account of the arrival of moving pictures and X-rays in Britain, Richard Crangle stresses that in terms of marketing, cinematography benefited from its assumption into the programme of the variety theatre rather than remaining at the fairground.³¹ It could, therefore, take advantage of variety's 'traditions of itinerance rather than ephemerality', whereby acts moved on to new audiences once their novelty value had been exhausted in a particular place.³² Unlike early moving picture equipment, X-ray equipment was relatively delicate and required skilled operation to produce good results. The differences in the portability of the equipment meant that the potential subjects of the X-ray were limited by the fact that they had to be determined in advance, brought close to the apparatus, and if the end product were a photographic image, held steady for the length of the relatively long exposure. The cinematographic subject, by contrast, was potentially limitless because the equipment could be brought to a location and await a subject, take subjects of varying sizes, and capture both still and dynamic subjects.

By the summer, the X-rays may have passed their peak as a novelty, and the detrimental effects of sustained exposure also began to be noted. In July the *Evening Telegraph* reported the findings of a German medical paper 'that Röntgen's rays burn the skin like the rays of the sun'.³³ The dangers were made more explicit in November when the scientific journal *Nature* made known the damage done to the exhibitor of X-rays at the Earl's Court Exhibition in London.³⁴

For various reasons, then, the exhibition of X-rays was better suited to the more controlled environment of the hospital or lecture theatre than to the variety theatre or fairground. Initially, it was those with links to universities in Ireland who experimented with X-rays because 'the requisite apparatus was available in almost every physics department in the country'.³⁵ The first public exhibition of X-rays in Ireland occurred as part of a lecture given by the physician Cecil Shaw, at the invitation of the Ulster Amateur Photographic Society, in the Museum, College Square North, Belfast, on 24 February 1896. 'The attendance in in [sic] the hall of the museum was almost too large to be comfortable', reveals a detailed press account, 'but, notwithstanding the inconvenience of the crowding, the interest evinced was very great'.³⁶ Shaw offered an illustrated explanation of Röntgen's discovery and showed the results of some of his own experiments with the rays, but a live experiment seems to have been unsuccessful. He also acknowledged and sought to dispel some of the popular speculations on the effects of X-rays that constituted a substantial part of their attraction:

A man might contemplate with comparative equanimity the idea of photographing the money in his purse, or the keys in his pocket, or the nails in his boots, but the line must be drawn at photographing his skeleton. That this last feat could be accomplished by the aid of Professor Röntgen's discovery was a widespread belief. It had been gravely declared that satin was the only dress material impervious to the new light, and it was even whispered that certain ladies' outfitters in the West End were doing a brisk trade in satin garments warranted Röntgen ray proof. (Laughter.)³⁷

In April, the same month as the *Cinématographe*, 'The World's Most Scientific Invention',³⁸ premiered at Dublin's Star Theatre of Varieties, Röntgen's discovery was causing a sensation in the national press and among the medical profession.

While the editorial in the *Freeman's Journal* of Monday, 27 April reported on the progress of Röntgen's experiments, an article on the same page reported on developments in Dublin:

We understand that Professor Barrett has been continuing very successfully his investigations into the question of direct vision by means of the Rontgen rays. The Professor has now, we believe, succeeded in producing a fluorescent screen by which he has been able to see quite through the body of an adult – the ribs and vertebrae being well seen. He has also succeeded in seeing through a copy of a London directory of 3,200 pages with thick covers. These results seem to be equal to any of those reported from the other side of the Atlantic.³⁹

Interest in Barrett's experiments was such that he gave a public lecture on them for '[a]ny of the medical profession or others particularly wishing to attend' at the Royal College of Science on April 30.⁴⁰

It would be April 1897 before any successful attempt was made to combine the two phenomena in what would later be called cineradiography. This was accomplished by Dr John Macintyre, whose *X-Ray Cinematography of Frog's Legs* was discussed in the *British Journal of Photography*.⁴¹ The high doses of radiation needed to produce a moving image made cineradiography too dangerous for the subject until electronic image-enhancement techniques were developed in the 1950s. G.A. Smith's 1897 film *The X-Ray Fiend* deals with the popular anxieties around the rays at their inception. In it, a mad professor turns his apparatus on an embracing couple to reveal their embracing skeletons.⁴² Mad professors also haunt the pages of the newspapers in 1896:

The news of a sensational development of the employment of Professor Rontgen's X rays comes from Rome. A distinguished Italian scientist, Professor Salvioni, of Perugia, has invented an instrument by means of which rays of invisible 'light' are made to impart to the eye the capacity of seeing through all objects which the Rontgen rays can penetrate, and of beholding the contents of opaque receptacles. [...] The head reels before the possibilities which this discovery opens up. Hamlet's appeal, 'O that this too, too solid flesh would melt,' will have to be revised in the light of the new rays.⁴³

The talismanic invocation of literature (in this case possible the first case of X-ray spectacles) recalls Eglinton's more extensive remarks on its inadequacy in the face of technological developments. His generic classification of technology according to a classical literary hierarchy (steam engines are epics, cinematographs lyrics) may suggest why generically superior X-rays continued to cause anxieties among cinephiles. An article in the Irish cinema journal *Irish Limelight* in 1917 speculates on the implications of the recent discovery of what it calls 'beyond X-rays', which could give an image of the internal organs as well as the bones:

You walk into an X-ray store (for there will be X-ray stores in every town soon), in broad daylight and fully dressed, and get a complete picture of a life that has hitherto been mercifully hidden from you [...] If this discovery (which is also positively indecent as well as dangerous) be proved all the mystery and happiness of life will be gone [...] Some people won't be satisfied unless they

get a photo of their stomach after each meal, just to see how their dinner is being digested.

There will be rows of photos – livers and spleens and stomachs – along every mantle-piece, and people will compare notes about them. The organs of private people will become public property. They may even be shown on the kinema if they happen to be distinguished people. The ‘Spleen of a Cabinet Minister at work’ would make a fine sensational draw as a moving picture.⁴⁴

Among the remarkable features of these anxious speculations on the loss of somatic propriety (including the etymological links of the latter term to ownership: being in possession of oneself) is the fact of their comparative lateness. More than twenty years after Röntgen’s discovery, and its increasing absorption into mainstream medical and surgical practice,⁴⁵ developments in radiography continued to fire the public imagination. The discourse on the body here may have an even more contemporary resonance in the incorporation of tanning studios into many of the video/dvd outlets that exist in every town in Ireland. In these, patrons can irradiate their bodies to conform to an image of health promoted by some distinguished people of the moving-picture media.

Notes.

1. Research for this paper was made possible by funding from the Irish Research Council for the Humanities and Social Sciences.

2. The quote here comes from a selection of their exchanges, along with contributions from George Russell and William Larminie, that appeared in book form as *Literary ideals in Ireland* (Dublin, 1899), p. 42–43.

3. Luke Gibbons, ‘Montage, Modernity and the City’, *The Irish Review* 10 (Spring 1991), p. 1.

4. For details of the films shown, see *Irish Daily Independent* 21 and 22 May 1896. Unless otherwise indicated, subsequent newspaper accounts are from 1896. Similar disappointment was expressed at the first exhibition of the cinematograph in Edinburgh; see *Scotsman* 14 April, reprinted in Colin Harding and Simon Popple, *In the kingdom of shadows: a companion to early cinema* (London, Madison and Teaneck, 1996), p. 12.

5. 22 April. The names of moving-picture devices are frequently misspelled in newspapers, and they will be retained in their original form below. Similarly, foreign words are often reproduced without their diacritics. Wilhelm Röntgen’s name, for example, which appears variously as Röntgen, Rontgen, and Roentgen, will be reproduced in the standard form in the text but retained unstandardized in quotes.

6. 22 April.

7. Cited in Eugene Watters and Matthew Murtagh, *Infinite varieties: Dan Lowrey’s music hall, 1879–97* (Dublin, 1975), p. 166.

8. ‘Cyclopia: a big attendance,’ *Irish Daily Independent* 21 May.

9. ‘Cyclopia fete,’ *Dublin Evening Mail* 21 May.

10. Ibid.

11. 20 May.

12. 21 May.

13. 22 May.

14. ‘Cyclopia,’ *Evening Telegraph* 23 May.

15. James Murray, ‘The early formative years in Irish radiology’ in J. C. Carr (ed), *A century of medical radiation in Ireland: an anthology* (n.p., 1995), p. 6.

16. 'Electric photography in surgery.'
17. 'The cinematograph: a startling invention,' 26 February. Focusing on the content of the films, this article begins by showing how far the cinematograph is ahead of the kinoscope, Edison's peepshow viewer that was first exhibited in Dublin in April 1895.
18. See, for example, the editorial item 'The Rontgen rays,' *Freeman's Journal* 27 April.
19. See, for example, 'Shadowgraphs: the process described by Professor Barrett: its aid in a Dublin surgical case,' *Evening Telegraph* 28 March; and 'Dublin hospitals and the X rays: what Edison has been doing in America,' *Evening Telegraph* 11 April.
20. 'Rontgen rays upon a mummy' and 'Mummies and the new photography,' both *Evening Telegraph* 17 February.
21. 'The anarchists and the new rays,' *Evening Telegraph* 4 March; and 'Bombs and the X rays,' *Evening Telegraph* 17 April.
22. 'Photography and jewels,' *Evening Telegraph* 22 April; and 'The new tell-tale photography,' *Evening Telegraph* 6 March.
23. 'The Roentgen rays: interesting demonstration,' *Dublin Evening Mail* 25 April.
24. 'Bray fancy dress cycle parade,' *Evening Telegraph* 29 August.
25. 'Professor Rontgen: Professor O'Mulligan emerges from retirement to cast some XX rays on a complicated subject,' 14 March.
26. See, for example, 'Wizard Edison's latest,' *Evening Telegraph* 21 December 1897; and Richard Crangle, 'Saturday night at the X-rays: the moving picture and "the new photography" in Britain, 1896' in John Fullerton (ed), *Celebrating 1895: the centenary of cinema* (London, 1998), p. 140, n. 12.
27. See advertisements in *Evening Telegraph* during week of Tuesday, 26 May.
28. 'The animatograph: on exhibition in the city,' *Evening Telegraph* 27 May.
29. Ray Allister, *Friese-Greene: close-up of an inventor* (London, 1948), pp. 78–9
30. Stephen Herbert and Luke McKernan (eds), *Who's who of Victorian cinema: a worldwide survey* (London, 1996), p. 124.
31. Crangle, 'Saturday night at the X-rays,' pp. 138–44.
32. *Ibid.*, p. 142.
33. 'The latest about "X" rays,' 11 July.
34. 'The bad side of the X rays,' *Evening Telegraph* 5 November.
35. Murray, 'Early formative years in Irish radiology,' pp. 6–7.
36. 'The new photography: the Rontgen rays: interesting lecture in Belfast,' *Irish News* 25 February.
37. *Ibid.*
38. The phrase is used in the advertisement for the cinematograph shows in the *Irish Times* 20 and 21 April. It is one of a series of hyperbolic expressions used to describe the phenomenon in the newspaper advertisements.
39. 'The Rontgen rays' (editorial item) and 'The X rays in Dublin,' *Freeman's Journal* 27 April.
40. 'The Rontgen rays,' *Freeman's Journal* 30 April.
41. *British Journal of Photography* 44:1929 (23 April 1897), p. 260. Partly reprinted in John Barnes, *The rise of the cinema in Gt. Britain: jubilee year 1897* (London, 1983), p. 199.

42. Denis Gifford, *The British film catalogue 1895–1985: a reference guide* (Newton Abbot and London, 1986).
43. 'New photography – new sensation,' *Evening Telegraph* 11 February.
44. 'Between ourselves,' *Irish Limelight* 1:3 (March 1917), p. 20.
45. Although radiologists did not organize into a professional body until 1932, many hospitals had X-ray equipment by the late 1910s. See Murray, 'Early formative years in Irish radiology,' pp. 6–29.