Chapter Five

H. G. WELLS'S FOUR-DIMENSIONAL LITERARY AESTHETIC

When exploring the influence of Hinton's ideas at the turn of the twentieth century, most scholars look to H. G. Wells; he called his own proto-science fictions 'scientific romances', after all. Wells's early writings demonstrate his interest in the theory of the fourth dimension, an interest that led to the development of what William J. Scheick has called Wells's 'splintering frame technique'.[1] While Scheick provides a useful framework for rethinking Wells's later writing, many examinations of Wells's early work are rooted in the reductive 'history of ideas' model of criticism. In this chapter, I traverse a selection of Wells's early texts, with an eye not only to Hinton's influence, but to the nascent modernist 'history of consciousness' in which both Hinton and Wells participated.[2] For both men, the theory of the fourth dimension appealed as a means of explaining and harnessing the conflicting and disruptive forces unleashed by scientific and technological developments of the nineteenth century, forces that were becoming a source of increasing anxiety at the turn of the century.

I focus primarily on Wells's work up to 1915, from his earliest scientific romances up to his controversial book, *Boon*, where he publicly attacked Henry James and his literary aesthetic. To begin, I examine his earliest uses of four-dimensional theory in *The Time Machine* (1894–1895) and *The Invisible Man* (1897). I focus particularly on *The Invisible Man*, a text that was clearly influenced by Hinton's *Stella* (1895). It was to Wells's advantage that he began composing *The Invisible Man* shortly after Wilhelm Conrad Röntgen discovered X-rays late in 1895.

Like Hinton, Wells turned to cutting-edge visual technologies in his attempt to represent four-dimensional space and subjectivity, and the unprecedented public enthusiasm for X-ray imaging provided Wells with a powerful aid in imagining the unimaginable. X-ray images in particular seemed to provide material evidence that there was a fourth dimension of space, a perspective from which three-dimensional objects were transparent. Tom Gibbons has observed that 'X-rays […], and their contribution to the anti-materialistic millenarian synthesis, appear largely responsible for the continuous excitement about the Fourth Dimension among the general public and avant-garde painters alike' at the turn of the twentieth century.[3]

1 See Scheick, *The Splintering Frame*.
2 See Hocks, *Henry James*, 43.
3 Gibbons, 'Cubism', 140.

Like William James, Wells was intrigued by the sense of 'more', of something beyond the capabilities of unaided human perception. In 1904, he wrote of the need for 'scepticism of the instrument'; in question here is 'the Instrument of Human Thought', as expressed through scientific theories and accumulated cultural assumptions.[4] In his revision of this essay for inclusion as an appendix to his 1905 experimental fiction *A Modern Utopia* (the same text that prompted William James to write his first letter to Wells in praise of the work), Wells added the claim that '*the forceps of our minds are clumsy forceps, and crush the truth a little in taking hold of it*'.[5] Wells was intrigued by the concept of the fourth dimension; he believed that within this idea lay the means for fine-tuning the instrument of human consciousness to transcend itself. Many of Wells's experiments in fiction can be read as attempts to develop a four-dimensional literary aesthetic, one that would engender a higher level of consciousness in his readers.

Four-Dimensional Invention

Wells's first scientific romance, *The Time Machine: An Invention*, appeared as a serial publication in the *New Review* in 1894 and as a novella in 1895. Wells had experimented with the idea of time travel even earlier, in his 1888 short story, 'The Chronic Argonauts', published in the *Science Schools Journal* shortly after Wells was a student at the Normal School of Science at Kensington. In both texts Wells used Hinton's theory of a spatial fourth dimension, experienced as duration, as a jumping-off point for the narrative. In *The Time Machine*, after offering a modified version of the dimensional analogy of the relations between a line, a plane and a cube, Wells's nameless Time Traveller asks the guests at his dinner-party: 'Can an instantaneous cube exist?'. The answer is no, of course, because:

> 'Clearly' the Time Traveller proceeded, 'any real body must have extension in *four* directions: it must have Length, Breadth, Thickness, and – Duration. But through a natural infirmity of the flesh, which I will explain to you in a moment, we incline to overlook this fact. There are really four dimensions, three which we call the three planes of Space, and a fourth, Time. There is, however, a tendency to draw an unreal distinction between the former three dimensions and the latter, because it happens that our consciousness moves intermittently in one direction along the latter from the beginning to the end of our lives. […] *There is no difference between Time and any of the three dimensions of our Space except that our consciousness moves along it.*'[6]

According to Wells's Time Traveller, we *call* the fourth dimension 'time', but in fact our separation of it from the three known dimensions of space is artificial; it is a limitation of embodiment. Like Hinton, the Time Traveller argues that the fourth dimension is experienced as duration, but in reality it is the movement of our consciousness through a space it cannot fully recognize and manipulate. And, like Hinton, Wells looked to the disorienting visual spectacles provided by innovations in transportation and moving-picture

4 Wells, 'Scepticism', in *Mind*, 389.
5 Wells, 'Scepticism', in *A Modern Utopia*, 256, original emphasis.
6 Wells, *The Definitive Time Machine*, 32, original emphasis.

technology to represent movement through the fourth dimension. Aboard his bicycle-like time machine, the Time Traveller compares four-dimensional movement to riding 'upon a switchback' (another word for roller-coaster, which was first patented in 1885), and the rapid passage of time all around him resembles the unnatural spectacle of stop-motion photography:

> As I put on pace, night followed day like the flapping of a black wing. […] I saw the sun the saw hopping swiftly across the sky, leaping it every minute, and every minute marking a day. […] The slowest snail that ever crawled dashed by too fast for me. The twinkling sensation of darkness and light was excessively painful to the eye. […] Presently, as I went on, still gaining velocity, the palpitation of night and day merged into one continuous greyness […] the jerking sun became a streak of fire; a brilliant arch, in space; the moon a fainter fluctuating band; and I could see nothing of the stars, save now and then a fainter circle flickering in the blue.[7]

Keith Williams observes, 'Commentators agree [that] what makes Wells's descriptions of the visual effects of time travel truly extraordinary is that he wrote them *before* he could possibly have seen a film, at least in the cinematograph's sense of the public screening'.[8] These commentators are correct; however, as I have shown, Wells was not the first to draw on filmic narrative to represent movement through the fourth dimension.

In his earlier romance of time travel, written before the publication of Hinton's recurrence scene in *An Unfinished Communication*, Wells did not attempt to depict the actual experience of time travel. He did, however, use Hinton's fourth dimension again in his explanation of the possibility of time travel. In 'The Chronic Argonauts' his time traveller, Dr Moses Nebogipfel, first uses the dimensional analogy to explain the fourth dimension and then continues:

> When we take up this new light of a fourth dimension and reexamine our physical science in its illumination […] we find ourselves no longer limited by hopeless restriction to a certain beat of time – to our own generation. Locomotion along lines of duration – chronic navigation comes within the range, first, of geometrical theory, and then of practical mechanics.[9]

Nebogipfel expresses Wells's nascent pragmatist methodology here; it is by revisiting and re-evaluating experience in light of a new understanding of the fourth dimension that great mechanical and intellectual advancements are made. This is, in fact, how Nebogipful has managed to manipulate his 'locomotion' in the fourth dimension, a monumental development which he positions alongside other paradigm-shifting discoveries. However, Nebogipfel, with this new power, is also threatening:

> There *was* a time when men could only move horizontally and in their appointed country. The clouds floated above them, unattainable things, mysterious chariots of those fearful gods who dwelt among the mountain summits. Speaking practically, men in those days were restricted

7 Ibid., 42.

8 K. Williams, *H. G. Wells, Modernity and the Movies*, 27, original emphasis.

9 Wells, *The Definitive Time Machine*, 150.

> to motion in two dimensions; and even there circumambient ocean and hypoborean fear bound him in. But those times were to pass away. First, the keel of Jason cut its way between the Symplegades, and then in the fulness of time, Columbus dropped anchor in a bay of Atlantis. Then man burst his bidimensional limits, and invaded the third dimension, soaring with Montgolfier into the clouds, and sinking with a diving bell into the purple treasure-caves of the waters. And now another step, and the hidden past and unknown future are before us. We stand upon a mountain summit with the plains of the ages spread below.[10]

There is a note of megalomania in Nebogipfel's use of the trope of 'over-ness' to describe his position in relation to the rest of humanity, and the comparison of his access to the 'mountain summit' with the power of 'fearful gods'. Nebogipfel is an ambiguous character at best: he is sinister in physical appearance and, we learn at the end of the narrative, guilty of manslaughter at least, if not outright murder. Wells's later Time Traveller of *The Time Machine* is more positively portrayed as a gentleman scientific investigator; his desire to harness the fourth dimension is driven by curiosity rather than thirst for power. Wells did not return to the threatening implications of the powerful, four-dimensional subject until *The Invisible Man*, which I discuss later in this chapter.

There is further evidence that Wells had Hinton's hyperspace philosophy in mind in *The Time Machine*. Though he does not mention Hinton by name, his Time Traveller alludes to Hinton's cube exercises:

> You know how on a flat surface, which has only two dimensions, we can represent a figure of a three-dimensional solid, and similarly they think that by models of three dimensions they could represent one of four – if they could master the perspective of the thing.[11]

In his attempts to master this perspective, Hinton developed his 'Arabic method' aesthetic in the *Scientific Romances*, as well as his complex cube exercises. The Time Traveller's description of the 'models of three dimensions' here echoes Hinton's discussion of his models in 'Casting Out the Self' (1886):

> The whole block of cubes formed a kind of solid [three-dimensional] paper in which one could mentally put down any solid shape one wanted. And just as it is a great convenience to have a piece of paper in drawing figures one wants to think about, so it was a great convenience to have this solid paper.[12]

Wells also utilized Hinton's representation of the fourth dimension as a series of three-dimensional slices. His Time Traveller explains:

> Well, I do not mind telling you I have been at work upon this geometry of Four Dimensions for some time. Some of my results are curious. For instance, here is a portrait of a man at eight years old, another at fifteen, another at seventeen, another at twenty-three, and so on.

10 Ibid., 150, original emphasis.
11 Ibid., 32.
12 Hinton, 'Casting Out', *Scientific Romances*, 226.

> All these are evidently sections, as it were, Three-Dimensional representations of his Four-Dimensioned being, which is a fixed and unalterable thing.[13]

Keith Williams argues that here Wells wrote 'as if imagining the course of a life as one vast chronophotograph' using terminology 'similar to Henri Bergson's contemporary theory of consciousness and memory'; in fact, Hinton's attempts to represent the fourth dimension seem a more plausible influence.[14] Wells owned a copy of Hinton's *Scientific Romances*, and he was a member of the Student Debating Society at the Normal School where Hinton's ideas were the main topic of at least one meeting.[15]

While Williams rightly observes that, in his early fictions, Wells 'strove to imagine forms and techniques of time-based representation that did not, as yet, exist in actual examples from often ingenious but relatively primitive cinema shows of the period', Wells, like Hinton, utilized new visual technologies in an attempt to represent something as yet unimaginable within literary narrative.[16] This ekphrastic striving is what marks the scientific romances of both Wells and Hinton as nascent modernist fictions: their affinity with experiments in early moving-picture technology is not a case of influence or anticipation, but rather of shared fascination with the possibilities of extending human perception. Film, like X-ray radiographs, could capture and make visible material realities previously inaccessible to the human eye. Wells and Hinton recognized the potential of these new technologies for expressing the fourth dimension.

The *Other* Invisible Protagonist

Williams argues that *The Invisible Man* is 'Wells's most sustained proto-cinematic exploration' of the late Victorian crisis of transgression of the boundaries between the seen and unseen.[17] While I find it useful to consider *The Invisible Man* within the context of contemporary developments in visual technology (especially given the spectacular nature of this novella's protagonist), I believe a more fruitful examination of this text will look to its relationship with Hinton's work and the 'four-dimensional' potential of X-ray imaging. In his exploration of the effect of invisibility on the individual subject, it is clear that Wells was responding to Hinton's *Stella* by engaging with questions of social, gendered

13 Wells, *The Definitive Time Machine*, 33.

14 K. Williams, *H. G. Wells, Modernity and the Movies*, 24. The theory Williams seems to have in mind here is expressed in Bergson's *Matter and Memory* (1896), which was not published until after *The Time Machine*. When Wells was writing *The Time Machine*, Bergson was just beginning his career, having only recently published his doctoral thesis, 'Time and Free Will' in 1889. This text was not available in English until 1910. There is no evidence that Wells was able to read French well enough to understand Bergson's argument.

15 See Hamilton-Gordon, 'The Fourth Dimension'. Hamilton-Gordon first presented this paper at the Student Debating Society, claiming the idea as his own. He later admitted to having read Hinton.

16 K. Williams, *H. G. Wells, Modernity and the Movies*, 7.

17 Ibid., 13.

identity; additionally, Wells extended Hinton's experiment in *Stella* to a consideration of the 'othering' effect of the fourth dimension.

As noted in the introduction, Wells presented the four-dimensional Angel of *The Wonderful Visit* (1895) as a Wildean aesthete. The implication here is that access to a four-dimensional consciousness somehow marks the subject as 'other' and, like Wilde, the Angel is denounced as a degenerate and socialist by the small-minded inhabitants of the village of Sidderton, where he was literally shot down to earth. Interestingly, Ernest Newman described Wilde's aesthetic 'immorality' as being shaped by his 'view from the fourth dimension'.[18] Indeed, there is perhaps something 'queering' about the fourth dimension, as Hinton acknowledged in 'A Plane World' (1886).

In this text from his first series of *Scientific Romances*, Hinton observed that 'in every man there is something of a woman, and in every woman there are some of the best qualities of a man. But in the [two-dimensional, 'plane'] world of which we speak there is no physical possibility for such interfusion'.[19] Hinton described a two-dimensional world of upright, right-angled, triangle-shaped inhabitants. The 'feet' of each being are located at the 'bottom', or horizontal, cathetus of the triangle. The 'face', or 'sensitive edge' is located on the vertical cathetus, and the 'hard edge' of the being is located along the hypotenuse: 'on the sensitive edge is the face and all the means of expression of feeling. The other [hypotenuse] edge is covered with a horny thickening of the skin, which at the sharp point becomes very dense and as hard as iron'. The 'female' triangles are mirror images of the 'male' triangles. Hinton even provided paper cut outs for the reader to utilize in imagining these beings: 'It must be remembered that the figures cannot leave the plane on which they are put. They must not be turned over' (Figure 5.1).[20]

The shape of the triangles determines their sex and their relations with one another, which are necessarily heterosexual:

> It is evident that the sharp point of one man is always running into another man's sensitive or soft edge. […] It will be evident, on moving the figures about that no two men could naturally come face to face with each other. In this land no such thing as friendship or familiar intercourse between man and man is possible. The very name of it is ridiculous to them.[21]

However, Hinton reported, there is a 'curious history' in the 'annals of this race': a male triangle, Vir, and female triangle, Mulier, who had been 'living in a state of utmost perfect happiness' are disturbed one day when, 'owing to certain abstruse studies of the Mulier, she was suddenly, in all outward respects, turned irremediably into a man'. This bizarre transformation was the result, according to Hinton, of the scientific investigator Mulier somehow gaining access to the third dimension of space and physically flipping herself over while there. She eventually manages to reverse the effects of her experiment, but in the interim, she and her partner continue their relationship in a

18 See Newman, 'Oscar Wilde'.
19 Hinton, 'A Plane World', *Scientific Romances*, 140.
20 Ibid., 141–43. See Fig. 5.1, Ibid., 141.
21 Ibid., 145.

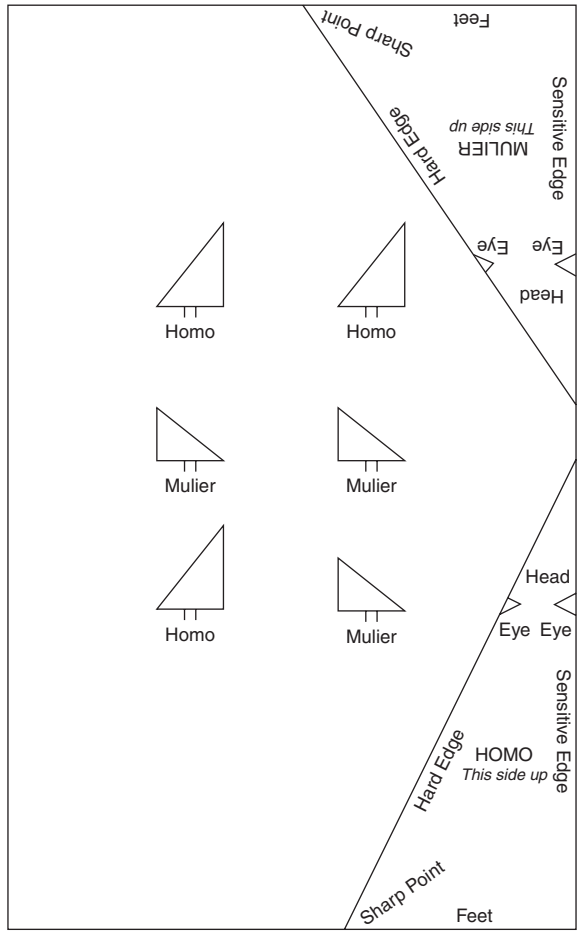

Diagram VI.

Figure 5.1

fashion that can only be read as crudely 'homosexual': 'Vir recognized her as the same true Mulier. But she occupied the same position with regard to him that any other man would. It was only by standing on his head that he could, with his sensitive edge, approach her sensitive edge'.[22]

Hinton made an odd choice here: why have a female scientist character at a time when female scientists were a rarity? This choice does not serve any particular plot function within the narrative. However, if we consider that 'A Plane World' was published shortly after the passage of the Criminal Law Amendment Act of 1885, which outlawed homosexual relations between men but not women, Hinton's choice becomes clear. Positioning 'Vir' as the scientific investigator who manages to flip himself over in the

22 Ibid., 146.

third dimension and thus returns as a physical woman who proceeds to continue 'her' relationship with Mulier as a 'sexual invert' would not have the same impact because contemporary Victorian law did not even acknowledge the significance or possibility of a relationship between two women. Just as his friend, Havelock Ellis, and the social progressives of fin-de-siècle London offered analyses of 'sexual inversion', 'A Plane World' appears to imply a 'scientific' explanation for homosexuality, one that mitigates moral condemnation in favour of tolerance or, at the very least, pity.[23] Ten years after the publication of 'A Plane World', Wells explored the possibility of a three-dimensional human 'flipping' in the fourth dimension in 'The Plattner Story' (1896). Although his protagonist returns permanently physically inverted (for example, his heart is now on the right side of his chest), unlike Hinton, Wells did not pursue the sexual implications of 'inversion' here. However, a year later in *The Invisible Man*, Wells did pick up on the 'queering' effect of male invisibility.

Wells's invisible man, Griffin, is a scientific investigator – like Hinton's Michael Graham – working in the 'border land' between scientific disciplines: as he explains to a colleague, he 'dropped medicine and took up physics' because 'light fascinated me'. During the course of his research, Griffin found 'a general principle of pigments and refraction, – a formula, a geometrical expression involving four dimensions'.[24] Graham rendered Stella transparent by lowering her 'coefficient of refraction […] equal to one'.[25] Similarly, Griffin's invisibility was caused by 'lower[ing] the refractive index […] to that of air'.[26] In *Stella*, Frank Cornish demonstrates how it might be possible to render a human being transparent when he conducts an initial experiment on a piece of flesh, and 'by immersing it in a heavy oil of the same coefficient of refraction […], and keeping it under the air-pump for a long time, I permeated the minute passages; the result is a substance invisible in the oil, but which looks like a piece of glass out of it'.[27] Griffin offers a simpler version of this experiment in his explanation of invisibility to a colleague, Dr Kemp: 'Oil white paper, fill up the interstices between the particles with oil so that there is no longer refraction or reflection except at the surfaces, and it becomes as transparent as glass'.[28] Wells even used a similar argument to overcome an objection to the possibility of making a living human invisible. In *Stella*, after Cornish demonstrates the process with the oil and flesh, Churton notes that because of the blood circulating in live tissues, 'you could not treat a living person so'. Cornish explains that 'the blood owes its colour to salts of iron […] all we have got to do is replace the iron by some element having colourless compounds'.[29] This is, admittedly, a scientifically dubious resolution to the problem, as is Wells's. Griffin anticipates a similar objection from Kemp by stating: 'You know the red colouring matter of the blood; it can be made

23 See, for example, Ellis and Symonds, *Sexual Inversion*.
24 Wells, *The Invisible Man*, 89.
25 Hinton, *Stella*, *Scientific Romances*, 34–35.
26 Wells, *The Invisible Man*, 89.
27 Hinton, *Stella*, *Scientific Romances*, 55–56.
28 Wells, *The Invisible Man*, 91.
29 Hinton, *Stella*, *Scientific Romances*, 56.

white – colourless – and remain with all the functions it has now!'.[30] Thus Wells's 'science' mimicked Hinton's.

However, Wells's interest in *Stella* went beyond the 'scientific patter' that provided an explanation for human invisibility.[31] In Hinton's story, Graham decided to make Stella invisible in order to break down the limitations of her three-dimensional subjectivity that had been formed by her gendering as feminine and, therefore, an aesthetic object. The idea that invisibility is a gender-specific remedy for the limitations of three-dimensional consciousness is explicit throughout *Stella* Invisibility would not be an appropriate treatment for men because, according to Churton, unlike female vanity, male limitations are expressed as more vigorous urges such as 'grabbing things and fighting'.[32] Applied to *The Invisible Man*, this becomes an apt description of much of Griffin's behaviour.

If self-effacement makes Stella a docile and altruistic individual, it turns Griffin – a narcissistic loner – into a sociopath. In Hinton's narrative, Stella's lack of self-regard makes her an emblem of Graham's socialist philosophy of 'being for others'. Conversely, Griffin's invisibility further isolates and frustrates him, pushing him to become the most extreme sort of individualist.[33] Dr Kemp's description of the invisible Griffin inverts the language of Graham's philosophy of 'being for others':

> He is mad, […] inhuman. He is pure selfishness. He thinks of nothing but his own advantage […]. I have listened to such a story this morning of brutal self-seeking! […] The man's become inhuman […]. He has cut himself off from his own kind.[34]

Griffin's reaction to his invisibility develops and pushes a brief episode from *Stella* to its logical conclusion. In this incident Stella tries to convince Churton to drink the invisibility drug. While they are abroad, Stella suggests that Churton become transparent because then 'we shall be like one another. Won't that be nice?'.[35] Churton reacts with outrage and paranoia:

> Now, during my walks about [Hong Kong], I had occasionally seen the faces of some men I had known in London, who had come out to posts in the Cingalese civil service. They had not recognised me, and this I had put down to their not expecting to see me there. […] But now it flashed upon me that I might have been getting transparent all this while – that perhaps my face was a sort of mist. 'Good Heavens, Stella!' I exclaimed, 'you haven't been giving me any of that drink before, have you?'[36]

30 Wells, *The Invisible Man*, 92.

31 This is Wells's term; see his introduction to *The Scientific Romances of H. G. Wells*, vii–x.

32 Hinton, *Stella*, *Scientific Romances*, 83.

33 See Wells's use of the term *individualism* to describe 'the cult', which is underpinned by the 'essential fallacy' of the rejection of the principle that 'liberty is a compromise between our own freedom of will and the wills of those with whom we come into contact' (*A Modern Utopia*, 29).

34 Wells, *The Invisible Man*, 127.

35 Hinton, *Stella*, *Scientific Romances*, 82.

36 Ibid., 81.

Stella assures him that she has not, and after demanding she 'take that rubbish away', he regains his composure.[37] However, Churton's momentary uncertainty of his own physical appearance and its impression on other – specifically male – onlookers, is emasculating. He does not want to be 'like' Stella (or any woman). By rendering a male subject invisible in *The Invisible Man*, Wells created a protagonist for whom the signifiers of physical appearance become, by necessity, an obsession. The ambiguity surrounding Griffin exists not only in relation to his fantastical (lack of) appearance; he also behaves in gendered extremes. Griffin, like his namesake, the gryphon, is composed of two opposing parts, and it is his inability to reconcile these differences that ultimately leads to his destruction. While Stella is assimilated into the role of wife and mother, Griffin is killed in order to allow the return to the status quo.

For Griffin, to become invisible is to surrender 'the hegemonic heterosexual male body' that Annie Potts identifies as 'self-contained […] with its exteriorised sexuality personified in the penis-self'. This body is conceptualized in opposition to

> the incoherence and interchangeability of the feminized body, whose orifices represent thresholds, margins of error, sites of weakness where outside may infiltrate inside, and vice versa. This 'male model' of sexuality is 'out there' […]: the privileging of vision over other senses reifies the penis as an external organ.[38]

His body no longer visibly 'out there', Griffin is repeatedly othered, or gendered as feminine. Aside from his new obsession with his physical appearance, Griffin explains how his invisible status makes it nearly impossible for him to travel unaccompanied in London: 'Every crossing was a danger, every passenger a thing to watch alertly. One man as I was about to pass him at the top of Bedford Street, turned upon me abruptly and came into me, sending me in the road and under the wheel of a passing hansom'.[39] As an outsider to physical norms and cultural expectations, Griffin is denied agency, similar to the kind of effacement experienced by the unescorted, highly-sexualized 'fallen' Victorian woman or, indeed, women in general under much of nineteenth-century law.

Perhaps most striking is Griffin's newly problematic relationship with food and the act of eating. Even when disguised he is unable to eat in public, lest he reveal his invisible mouth, and when undressed he must fast, 'for to eat, to fill myself with unassimilated matter, would be to become grotesquely visible again'.[40] Like his female counterpart, 'eating is […] something too personal to survive the public scrutiny of the dinner table'.[41] Helena Michie has highlighted the obsessive linking of food with female sexuality in nineteenth-century fiction, observing that Victorian heroines are rarely depicted in the act of eating. After becoming invisible, Griffin too must develop coping strategies, 'elaborate rituals' around the act of eating: even when dining privately with Dr Kemp, his sole

37 Ibid., 82.
38 Potts, *The Science/Fiction of Sex*, 203.
39 Wells, *The Invisible Man*, 115.
40 Ibid., 114.
41 Michie, *The Flesh*, 20.

confidant, Griffin demands a dressing gown, explaining that 'I always like to get something about me before I eat […]. Queer fancy!'.[42]

Dressing and 'painting' – also traditionally feminine activities – become obsessions for the invisible Griffin. He complains that he is 'a wrapped-up mystery, a swathed and bandaged caricature of a man!'.[43] Although he is able to 'pass' as visible when disguised in theatrical costume and make-up, Griffin's body remains insubstantial in comparison to the clothes he wears. He is less a human being than a mystery for the other characters in the text to unravel. Like numerous nineteenth-century depictions of fallen women, where 'clothing, its patterns and its textures, dominates and at times erases the bodies beneath it', Griffin is repeatedly described not as a person, but as his clothing.[44] Mrs Hall, the landlady of the Coach and Horses Inn where Griffin lodges, views him as 'a brown gloved hand', 'inscrutable blue glasses', and 'a dripping hat brim'.[45] This is first account we are given of Griffin, and other characters in the village similarly describe him as 'the stranger, muffled in hat, coat, gloves and wrapper'.[46] Even Kemp looks on him as 'the devouring dressing gown'.[47] Having desired invisibility in order to escape the problems of his relative poverty, Griffin finds that he is no longer treated as a social subject; he is only a physical body whose vulnerability must somehow be negotiated. Unlike the Angel of *The Wonderful Visit*, who is literally 'fallen' from the fourth dimension, Griffin is metaphorically 'fallen' because he is unable to transcend his material needs.

Like Churton, Griffin revolts against his newly developed awareness of his material body and its impact on others. He is ridiculed by the inhabitants of Iping, the small Sussex village where he lives after fleeing London, and when he reveals his invisibility to them, the scene is at first horrific:

> 'You don't understand', he said, 'who I am or what I am. I'll show you. By Heaven! I'll show you.' Then he put his open palm over his face and withdrew it. The centre of his face became a black cavity. 'Here,' he said. He stepped forward and handed Mrs. Hall something which she […] dropped […] and staggered back. The nose – it was the stranger's nose! pink and shining – rolled on the floor.
>
> Then he removed his spectacles, and every one in the bar gasped. He took off his hat, and with a violent gesture tore at his whiskers and bandages. For a moment they resisted him. A flash of horrible anticipation passed through the bar.
>
> It was worse than anything. Mrs. Hall, standing open-mouthed and horror-struck, shrieked at what she saw and made for the door of the house. Every one began to move. They were prepared for scars, disfigurements, tangible horrors, but *nothing*![48]

42 Wells, *The Invisible Man*, 81. Griffin's concern resonates (though likely unconsciously) in the title of Morgan's book, *The Invisible Man: A Self-Help Guide for Men with Eating Disorders, Compulsive Exercise and Bigorexia*.

43 Wells, *The Invisible Man*, 121.

44 Michie, *The Flesh*, 77.

45 Wells, *The Invisible Man*, 7.

46 Ibid., 16.

47 Ibid., 81.

48 Ibid. 37, original emphasis.

However, shock and awe of the situation quickly degenerates into low comedy, with the rush to exit the inn resulting in a village-wide pile-up:

> People down the village heard shouts and shrieks, and looking up the street saw the Coach and Horses violently firing out its humanity. They saw Mrs. Hall fall down and Mr. Teddy Henfrey jump to avoid tumbling over her, and then they heard the frightful screams of Millie, who, emerging suddenly from the kitchen at the noise of the tumult, had come upon the headless stranger from behind.
>
> Forthwith every one all down the street, the sweetstuff seller, the coco-nut-shy proprietor and his assistant, the swing man, little boys and girls, rustic dandies, smart wenches, smocked elders and aproned gipses, began running […].
>
> [Then] a little procession […] was marching very resolutely towards the house, – first Mr. Hall, very red and determined, then Mr. Bobby Jaffers, the village constable […].
>
> 'Ed or no 'ed', said Jaffers 'I got to 'rest en, and 'rest en I *will*'.[49]

Although able to cope with visible disfigurement, the villagers are first stunned at the appearance of *nothing*.[50] However, the rapid shift to slapstick reduces Griffin's malevolent act of unveiling from sublime to ridiculous.

Just as the concern with dressing and painting is gendered as feminine, unveiling oneself is not a traditionally masculine activity. Ludmilla Jordanova examines the politics of veiling and unveiling, noting that in contrast to the erotic and/or intimidating act of female unveiling, 'the idea of unveiling men is comic, implausible or unthreatening'.[51] According to Jordanova, this is 'possibly because neither mystery nor modesty are male preserves but attributes of the other', at least in heteronormative cultures.[52] However, Griffin is a mystery; he is described as such frequently by the villagers and the narrator. What is initially horrifying about the unveiled Griffin is the fact that, like the Freudian reaction to female genitalia, there is *nothing there to see*; however, this apparent emasculation of Griffin quickly turns the villagers' sense of horror to one of ridicule.

Emasculated and reduced to a void, Griffin is faced with the kind of treatment that patriarchal Churton imposes upon Stella. After recovering Stella from the fraudulent Spiritualist, Churton fantasizes about marrying her. This is the first time he 'sees' Stella, whose physical form is signified by her dress, hat, veil and gloves: 'She looked entrancingly pretty. Those little gloves, how charming to put a ring on the finger beneath – if –'.[53] Likewise, unable to comprehend or contain Griffin, the village constable wishes to bind him with handcuffs under the law. After this final insult, Griffin shifts into hypermasculine behaviour, 'smiting and overthrowing for the mere satisfaction of hurting'.[54] On the run from the angry villagers, and betrayed by Kemp to the police, Griffin decides to

49 Ibid., 37, original emphasis.
50 The emphasis on *nothing* calls to mind Freud's theory of the male 'castration complex'. See Freud, *The Basic Writings*, 595.
51 Jordanova, *Sexual Visions*, 96.
52 Ibid., 110.
53 Hinton, *Stella, Scientific Romances*, 71.
54 Wells, *The Invisible Man*, 60.

institute a 'Reign of Terror' over the region.[55] This reign ends in Griffin's violent death, and 'so ends the […] strange and evil experiment of the Invisible Man'.[56] Like Graham's experiment with removing Stella from a social economy that automatically positioned her as other, Griffin's experiment, which inversely removed him from the subject position and turned him into a spectacular object, ends in failure. Otherness – coded as invisibility in *Stella* as well as in *The Invisible Man* – serves 'as medium for deep investigations of the nature of self-awareness'.[57]

'An "Habeas Corpus" of an Uncanny Source'

Griffin's newly visible corpse at the end of *The Invisible Man* is literally, to borrow Linda Cartwright's description of contemporary response to X-rays, a 'manifestation of anxieties about sexual difference, mutilation, and death':[58]

> Everyone saw, faint and transparent as though it was made of glass, so that veins and arteries and bones and nerves could be distinguished, the outline of a hand, a hand limp and prone. […] And so, slowly, beginning at his hands and feet and creeping along his limbs to the vital centres of his body, that strange change continued. It was like the slow spreading of a poison. First came the little white nerves, a hazy grey sketch of a limp, then the glassy bones and intricate arteries, then the flesh and skin, first a faint fogginess, and then growing rapidly dense and opaque. Presently they could see his crushed chest and shoulders, and the dim outline of his drawn and battered features.[59]

This eerie description of the 'strange change' of Griffin's naked corpse, from his hands to the centre of his body, is strikingly similar to images that were being produced and published at the time Wells was composing the novella, such as the one from 1896 in Figure 5.2.[60]

Keith Williams, Laura Marcus and others have observed that *The Invisible Man* adapted particularly well to film in James Whale's Universal Studios version (1933) because of the inherently cinematic qualities of this text, particularly 'the play of absence and presence, and "the presence of an absence", central to theorisations of filmic technology'.[61] While this is undoubtedly an insightful observation, it overlooks Wells's more immediate engagement with another technology of representing 'the presence of an absence', the X-ray radiograph.

One key difference between the representation of human invisibility in Wells and Hinton is Wells's emphasis on the visual uncanniness of the transparent human body, and on the traumatic process of becoming invisible. While this emphasis is partly indicative of Wells's

55 Ibid., 125.
56 Ibid., 149.
57 Simpson, 'The "Tangible Antagonist"', 135.
58 Cartwright, *Screening*, 117.
59 Wells, *The Invisible Man*, 148.
60 First angiogram taken by Eduard Haschek and Otto Lindenthal in January 1896. The image appeared in 'X Ray Photography', *Scientific American*, 155.
61 Marcus and Nichols, *Cambridge History of Twentieth-Century Literature*, 338.

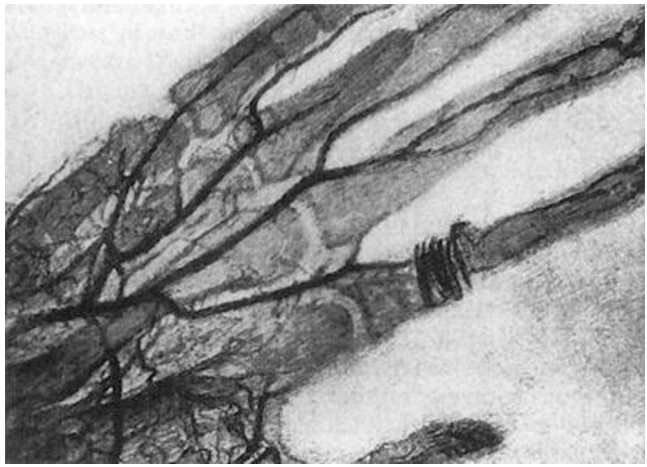

Figure 5.2

flair for the fantastic, it is also the result of the discovery of X-rays in November of 1895. Published in the autumn of 1895, Hinton's *Stella* is unfortunately timed; had he been able to incorporate X-ray imagery into the text, the sales of *Stella* might have been much higher, given the widespread interest in Wilhelm Röntgen's discovery. As it was, Sonnenschein wrote to Hinton in March 1896 that sales for the 1895 edition were unexpectedly low.[62] *Stella* was reprinted later within the second series of *Scientific Romances*; it is likely that Hinton's story was then read as a second-rate imitation of *The Invisible Man*.

Even before the publication of the first X-ray images, Hinton and his contemporaries were particularly concerned with invisible forces and agents: during the second half of the nineteenth century, the invisible provided a conceptual gathering site for various concerns, including those expressed in hyperspace philosophy. 'After the two laws of thermodynamics entered public awareness', Gillian Beer writes, 'the invisible seemed to make us simply receptors of its traffic. […] By the 1850s, the invisible world might seem to be out of human control'.[63] We have seen how Hinton's invisible Persian king manipulates the valley-dwellers. While Hinton explicitly celebrated the altruistic actions of those who can master the invisible powers of the king, this text also raises the disturbing possibility that human agency is controlled by unseen forces. Whether these forces were conceived as external physical energies, supernatural agents or, perhaps more disturbingly, internalized unconscious dimensions of being, it is not surprising that, in Beer's words, 'tussles developed for the control of meaning relating to that which is invisible'.[64] Nothing served as a lightning rod for this conflict like the discovery of 'a new kind of light', a 'ray' which emanated from an unknown source (hence the 'X'), and could visually penetrate the living flesh of the human body.

62 Sonnenschein to Hinton, 10 March 1896, The Records of George Allen & Unwin, Ltd., MSS 383, Book 27, 956.

63 Beer, 'Authentic Tidings', 87.

64 Ibid., 85.

In December 1895, Röntgen published a paper titled 'Über eine neue Art von Strahlen', in the *Proceedings of the Würzberg Physical Medical Society*. In this paper he announced his discovery of the X-rays, and he sent copies, along with initial X-ray images, to a number of recognized physicists in Germany, France and England for evaluation. These images were leaked to Vienna's *Die Presse*, which published a report on 5 January 1896. The following day the London *Daily Chronicle* picked up the story.[65] Ten days later, a brief paragraph and copies of Röntgen's original X-ray images appeared in *Nature*:

> Prof. W. C. Röntgen […] is reported to have discovered that a number of substances which are opaque to visible rays of light, are transparent to certain waves capable of affecting a photographic plate. It is alleged that he has been able to utilise his discovery to photograph metals enclosed in wooden or woollen coverings, and has succeeded in obtaining pictures showing only the bones of living persons.[66]

The tone here is cautious and sceptical: Röntgen is *reported* to have discovered the rays, and it is *alleged* that he can photograph a living person's bones. This would quickly change, as a barrage of letters, articles, X-ray images and book notices flooded the pages of *Nature* as well as other scientific and popular periodicals. Linda Dalrymple Henderson notes that in 1896 alone, 'more than fifty books and pamphlets and well over a thousand papers were published on the subject of x rays'.[67] Röntgen's choice of the human body as one of the first objects for X-ray imaging was crucial, as a contributor to *The Nineteenth Century* observed early in 1896:

> The wonderful photographs of the bones within the living human body by the Würzberg professor […], as well as the mysterious character itself of 'invisible rays of light which reveal things concealed from the human eye,' have contributed a great deal to render the discovery widely popular.[68]

The relative accessibility of the equipment needed to generate the images was another contributing factor to 'X-ray mania'.[69] The proliferation of X-ray images and the fast pace of development of X-ray technology are apparent from the correspondence pages of *Nature* throughout 1896 – pages dotted with contributions from enthusiasts who passed along photographs clipped from foreign journals, as well as the results of their own amateur experimentation. The majority of these images are of human hands, similar to Röntgen's first image, which was of his wife's hand. The figure of the skeletal hand became a central motif in early X-ray photography. Thomas Mann depicted the sense of

65 Glasser, *Dr. W. C. Röntgen*, 54.
66 'Note' *Nature* 53: 253.
67 L. Henderson, 'X Rays', 324.
68 'Recent Science', *Nineteenth Century* 39: 416.
69 See 'Note' in *Nature* (20 February 1896): 308, where the contributor writes that 'Wm. Wallace and H. C. Pocklington in the Physical Laboratory of the Leeds Central Higher Grade School' obtained X-ray images using 'a cheap incandescent lamp of low candle-power […] in place of a Crookes tube'.

fascination that such images inspired during the early days of X-ray imaging in *The Magic Mountain* (1924):

> Hans Castorp saw, precisely what he must have expected, but what is hardly permitted man to see, and what he had never thought it would be vouchsafed him to see: he looked into his own grave. The process of decay was forestalled by the powers of the light-ray, the flesh in which he walked disintegrated, annihilated, dissolved in vacant mist, and there within it was the finely turned skeleton of his own hand, the seal ring from his grandfather hanging loose and black on the joint of his ring-finger. […] He gazed at this familiar part of his own body, and for the first time in his life he understood he would die.[70]

Castorp's unsettling sensation is perhaps best described in the language of the uncanny: the X-rays subvert not only traditional notions of interior and exterior space, thus instigating a 'return of the repressed', but also – by showing the body prematurely stripped bare of its most perishable tissues – they confuse the boundary between the living and the dead. The doctor who is X-raying Castorp here sums up the effect aptly: 'Spooky, what? Yes, there's something definitely spooky about it'.[71]

The X-rays were disturbing also because, as Victorian physicist Arthur Schuster observed, they 'upset all of one's notions of the laws of nature'.[72] The transgressive power of X-rays was not just limited to material notions of nature; human 'nature' was called into question as well. Stripped of their flesh, the X-rayed subjects were nearly indistinguishable: race, class and even gender were not immediately apparent. 'At stake' here, Lisa Cartwright observes, 'is the loss of the cultural text inscribed in the skin, the organs'. For many, 'desire depends on the presence of a surface that conceals a living structure, a signifying surface of clothing or skin that can be read for signs of sexual and cultural difference', hence the problem of invisible subjects such as Stella and Griffin.[73]

As a woman, and thus an object of desire for Churton, Stella is under constant pressure to wear something, or at least 'paint' herself so that she will be visible to him. Griffin's masculine subjectivity is thrown into crisis as a result of the necessity of his continual regard for personal appearance, which – as indicated in Graham's philosophy – is the instigator of feminine identity development. Similarly, Hans Castorp's encounter with the X-ray cited above is fraught with anxiety about submitting himself to the male doctor's gaze. In the waiting room, Castorp watches another patient, a woman, who is also waiting to be X-rayed. While imagining sharing the doctor's visual access to her body (the female patient also models for the doctor, who is an amateur painter), Castorp's 'voyeuristic fantasy is abruptly checked' when he realizes that he too will be reduced to an aesthetic object under the doctor's all-penetrating gaze.[74]

In violating the boundaries of the subject and rendering that subject into spectacular object, the X-rays posed a threat to masculine subjectivity. This was managed in the

70 Mann, *The Magic Mountain*, 218–19.
71 Ibid., 219.
72 Schuster, 'Letters', 268.
73 Cartwright, *Screening*, 119.
74 Ibid., 123. See also 123–25, where Cartwright offers a close reading of this scene.

early days of X-ray imaging by assimilating its powers into the pre-existing specular economy: the majority of the early human subjects of X-ray photographs were female (including the first, Bertha Röntgen):

> Among the many physicians who immediately repeated Roentgen's experiments, a woman's hand, sometimes captioned as 'a lady's hand,' or 'a living hand,' became the popular test object. […] In the public sphere as in medicine, the female hand X ray became a fetish object par excellence. In an early discussion of fetishism, Freud refers to the practice of foot binding, wherein the foot is mutilated and then venerated as an icon of timeless feminine beauty. This image suggested that the female body, like the fetish object, is ownable (as the wedding band, visible in the X-ray image [of Bertha Röntgen's hand], seems to suggest).[75]

Early anxieties about X-ray imaging were not, as we would perhaps expect, about radiation and tissue damage, but rather the disintegration of the cultural signifiers of social identity, as well as the uncanny power they afforded to medical men who made use of them. Cartwright demonstrates how the discovery of X-rays 'was received with such widespread excitement […] because it further legitimated [the] model of visual knowledge as corporeal penetration and invasion, a model that previously had currency as popular fantasy and spectacle'.[76] However, numerous early responses to this discovery also indicated anxiety that the boundary between public and private might be completely dissolved.

A poem in the 1897 volume of *International Annual of Anthony's Photographic Bulletin and American Process Yearbook* (published in 1896) brings together a number of concerns about the new photography. The male persona of the poem warns:

> Your sweetheart your photo will not accept,
> "'T is too old-fashioned by half."
> Though you deemed the portrait beyond compare,
> She says in her locket she prefers to wear
> Your skeleton radiograph.[77]

In addition to the request that he be 'penetrated' by his lover's gaze, the implied male reader is told he can look forward to his 'inmost perception' – his thoughts – being revealed. The poet, Emily Culverhouse, footnotes an article in the *Standard* to support the claim that 'thought photography' is possible, and then continues to describe a scenario:

> I say to my wife, 'Don't wait supper for me,
> For my business may cause a delay.'
> But the Röntgen rays enlighten her eyes,
> And by their deep aid she quickly decries
> 'Tis pleasure that stands in the way.

75 Ibid., 115. See also Tovino, 'Imaging'.
76 Cartwright, *Screening*, 114.
77 Culverhouse, 'Photography', 75–78.

She sees in my pocket, so snugly ensconced,
A bracelet in case, and a fan;
And doubtless this all-searching thought-reading too,
Brings name and appointment at once into view,
So she frustrates my nice little plan.[78]

Even men are subject to the penetrating gaze of the X-rays, as this seemingly omniscient power is accessible to women as well. The poem demonstrates the downside of Hinton's proto-X-ray, four-dimensional vision in which 'our secrets lie as clear as the secrets of a plane being lie to an eye above the plane. […] And so we lie palpable, open. There is no such thing as secrecy'.[79] Culverhouse's doggerel verse describes a future where 'we shall live with our friends, and our relatives too / In a state of mistrust and suspicion', and 'an Englishman's body' no longer 'belongs to himself'.[80] After offering the spectre of men, as well as women, being subject to this panoptic gaze, Culverhouse concludes:

If our houses are raided, the law will step in;
Then in justice and plain common sense,
Our bodies and minds should receive the same aid;
And to pry without warrant should surely be made
An illegal and heinous offence.[81]

This is 'an "habeus corpus" of an uncanny source', Culverhouse argued, reminding the reader that X-rays are 'a gruesome, weird, and mystical force / (But clothed in the garb of science of course)'.[82] From the very beginning, X-rays were associated with the occult. In his biography of Röntgen, Otto Glasser suggested that Röntgen's initial investigations were carried out in secret because, after first witnessing the uncanny penetrative power of the X-rays, he feared being brought into 'disrepute in the eyes of his colleagues' if it became known that he was conducting metaphysical experiments.[83]

The X-rays added another layer to the 'garb of science' around the fourth dimension as well. As early as 'What Is the Fourth Dimension?', Hinton described the kind of vision that the X-rays seemed allow:

> A being in three dimensions, looking down on a [two-dimensional] square, sees each part of it extended before him, and can touch each part without having to pass through the surrounding parts, for he can go from above, while surrounding parts surround the part

78 Ibid., 77.
79 Hinton, 'Many Dimensions', 42.
80 Culverhouse, 'Photography', 77 and 75.
81 Ibid., 78.
82 Ibid., 75.
83 Glasser, *Dr. W. C. Röntgen*, 38. See also Cartrwright, *Screening*, 114–15.

> he touches only in one plane. *So a being in four dimensions could look at* […] *every part of a solid figure*.[84]

Hinton recognized the potential of this vision for medical science; in the 'sexual inversion' anecdote from 'A Plane World', Mulier returns to her two-dimensional space not only with male sexual characteristics, but also 'strange knowledge of the internal anatomy' of her species, and 'most of their medical knowledge dates from her'.[85]

While Hinton never explicitly linked X-rays with four-dimensional vision, many others did. Second-generation hyperspace philosopher Claude Bragdon argued that 'with the evidence of X-rays it could be regarded as even more scientifically respectable to believe in the demonstrable evidence of a condition of "four-dimensional vision" which rendered material objects transparent'.[86] Wells played with this newfound respectability to make his invisible man plausible; Griffin's explanation of the secret of invisibility links four-dimensional theory with X-rays. After discovering the four-dimensional principle of pigments and refraction, Griffin tells Kemp that

> the essential phase was to place the transparent object whose refractive index was to be lowered between two radiating centres of a sort of ethereal vibration, of which I will tell you more later. No, not these Röntgen vibrations – I don't know that these others of mine have been described.[87]

Thus, Wells was able to capitalize on Röntgen's fantastic discovery in a way that Hinton, in *Stella*, was not.

Wells's Splintering Frame Technique and 'Cubist Visual Culture'

In his examination of Wells's work in the twentieth century, Scheick argues that in his later fiction, Wells used a

> technique of 'the splintering frame' [that] employs certain fictional conventions in a way designed […] to frustrate reader expectations aroused by these conventions, […] to draw attention to the artificiality and ideology behind these conventions, and […] to point away from the 'exhausted' text as self-contained, finished artifact and towards the self-aware reader, who ideally participates within the expanded boundary of the text and discovers within himself [*sic*] a capacity (dimensionality) for a heightened awareness of and control over human fate. This technique of the splintering frame comprises the aesthetic fourth dimension of his novels.[88]

Scheick overlooks Wells's early fiction, but even here Wells was already experimenting in the literary fourth dimension; particularly in *The Invisible Man*, with its emphasis on

84 Hinton, 'What Is the Fourth Dimension?', *Scientific Romances*, 13, emphasis added.
85 Hinton, 'A Plane World', *Scientific Romances*, 147.
86 Bragdon, *Four-Dimensional Vistas*, 57.
87 Wells, *The Invisible Man*, 95.
88 Scheick, *The Splintering Frame*, 24–25.

transgressive developments in visual technology, we can observe early examples of his 'splintering frame technique'.

To splinter the narrative frame of a written text is to enact a kind of literary *trompe-l'oeil* which – as in Picasso and Braque's collage work – through deception of the eye, the *mind* is 'undeceived'.[89] Wells believed this 'undeception' of literary realism was necessary at the end of the nineteenth century:

> Throughout the broad smooth flow of nineteenth-century life in Great Britain, the art of fiction floated on this […] assumption of social fixity. The Novel in English was produced in an atmosphere of security for the entertainment of secure people […]. Its standards were established within that apparently permanent frame and the criticism of it began to be irritated and perplexed when, through a new instability, the splintering frame began to get into the picture.[90]

Wells was less interested in developing a refined mimesis of 'real life' than he was with disrupting what he viewed as the 'broad smooth flow' of nineteenth-century realism. He disrupted this realism by introducing fantastic and metatextual elements into his fictions. Baudrillard is useful here:

> Trompe-l'oeil does not attempt to confuse itself with the real. Fully aware of play and artifice, it produces a simulacrum by mimicking the third dimension, questioning the reality of the third dimension, and by mimicking and surpassing the effect of the real, radically questioning the principle of reality.[91]

Wells's narratives were designed to function by analogy: by splintering the mimetic frame of the text, he encouraged the movement of the reader's attention from the world represented within the text to events in the external world of social and lived reality. Like the visitation of the three-dimensional Sphere that ruptures A. Square's two-dimensional perceptual frame in *Flatland*, Wells disrupted the narrative frame to emphasize to the reader the constructed nature of the 'real' world beyond the literary text.

This was a political and ethical endeavour, a call to his readers to take action. In 1911, Wells declared the novel 'a powerful instrument of moral suggestion'; it was, in fact, 'the only medium through which we can discuss the great majority of the problems which are being raised in such bristling multitude by our contemporary social development'.[92] He appears to have had some success in achieving this goal of increasing his readers' social awareness and political engagement, if we consider Virginia Woolf's complaint that Wells's stories 'leave one with so strange a feeling of incompleteness and dissatisfaction. In order to complete them it seems necessary to do something – to join a society, or […] to write a cheque'. The Wellsian novel is not even

89 See Greenberg, *Art and Culture*, especially 72.
90 Wells, *Experiment*, 1: 494–95.
91 Baudrillard, *Selected Writings*, 156.
92 Edel and Ray, eds, *Henry James and H. G. Wells*, 144 and 148.

a novel by Woolf's standards ('Sometimes I wonder if we are right to call them books at all'); it is simply a text held together by its physical binding rather than its aesthetic unity.[93] However, this unfinished, outward-looking quality was crafted intentionally: it was Wells's literary aesthetic, a way of arousing a higher-dimensional consciousness in the reader.

Wells believed that the turn of the twentieth century was a particularly opportune time to reconsider the art and scope of the novel because the cumulative effects of the social, cultural and technological upheavals of the second half of the nineteenth century had resulted in a 'great intellectual revolution […] of which the revival and restatement of nominalism under the name of pragmatism is the philosophical aspect'.[94] As Hinton and even Stewart and Tait observed earlier, with the decline of religious certainty and the increase of cosmopolitanism, the 'feeling of certitude about moral values and standards of conduct' was fast dissipating.[95] In this context, the fourth dimension can be read as an attempt to negotiate the aporia created by this cultural shift. In the case of Stewart and Tait, this is certainly the function it fulfilled: the unseen spiritual universe that exists somewhere in the fourth dimension was the means by which the immortality of the soul (and therefore the need for moral absolutes in mortal life) could be preserved in the face of mounting scientific evidence to the contrary.

Hinton's conception of the fourth dimension differed from Stewart and Tait's: it was not a stand-in for a metaphysical centre, or a universalizing moral agent. Hinton's hyperspace was accessible by a 'moving consciousness', one that would vary from individual to individual; moral value is similarly relative here. Wells's four-dimensional aesthetic is consonant with Hinton in opposition to Stewart and Tait. For Wells, post-Victorian morality was to be discursive, and the novel was the most apt vehicle for exploring this shift: 'I do not mean merely that the novel is unavoidably charged with the representation of this wide and wonderful conflict. It is a necessary part of the conflict'.[96] 'Ideally', Scheick writes, for Wells, the outcome of the novel's involvement in this conflict would result in 'both reformed [narrative] structure and reader sensibility becom[ing] four dimensional or, in other words, open to ever-expanding indeterminate possibilities'.[97]

While Wells's experiments in reforming narrative structure led him down various paths, we can find an early – and quite literal – example of his splintering frame technique in an 1894 short story, 'Through a Window'. In this narrative, a man named Bailey is convalescing in his home in West London. With two broken legs, he is unable to move from the couch of his study; his sole entertainment is the view from his window, which looks out onto the Thames. 'Funny', he remarks, 'how these people [on the river] come from all points of the compass – from Oxford and Windsor, from Asia and Africa – and

93 Woolf, *The Captain's Death-Bed*, 99.
94 Edel and Ray, eds, *Henry James and H. G. Wells*, 147–48.
95 Ibid., 145.
96 Ibid., 147.
97 Scheick, *The Splintering Frame*, 25.

gather and pass opposite the window just to entertain me'.[98] However, one day the man's self-centred worldview is disrupted when this 'entertainment' violently intrudes into his study in the form of a hunted escapee, a Malay servant from one of the pleasure boats in the area. The man is shot by his pursuers as he is climbing through the window frame into Bailey's study: he falls dead on top of Bailey, 'rapidly staining and soaking the spotless bandages' of the invalid.[99] Here, disturbing elements of the external world – external to Victorian household and empire – force themselves into the comfortable sphere of the bourgeois audience, and by 'staining' it, alter it irreversibly. Bailey, the passive and 'secure' consumer of the narrative circumscribed by his window frame, is shocked out of complacency when that frame, the boundary between real and fictitious space, is abruptly violated in a scene that recalls the boy's transgression in Pere Borrell del Caso's *Escapando de la Critica* (1874). While the subject of del Caso's painting may be attempting to escape the critical gaze, it is Bailey – the stand-in for the reader – who is unable to escape in Wells's narrative.

Ten years later, Wells shifted away from dramatizing the splintering frame toward utilizing it as a structural effect in *A Modern Utopia* (1905). Here Wells constructed an elaborate frame for the narrative, first addressing the reader as himself, in 'A Note to the Reader', and then with another introduction titled 'The Owner of the Voice', written entirely in italics. '*Now this Voice*', according to Wells, '*is not to be taken as the Voice of the ostensible author who fathers these pages. You have to clear your mind of any preconceptions in that respect*'. After a detailed description of this narrative voice and the physical person from whom it issues, the text continues:

> *Him you must imagine as sitting at a table reading a manuscript about Utopias […]. The curtain rises upon him so. But afterwards, if the devices of this declining art of literature prevail, you will go with him through curious and interesting experiences. Yet, ever and again, you will find him back at the little table, the manuscript in his hand, and the expansion of his ratiocinations about Utopia conscientiously resumed.*[100]

Foregrounded here is the movement that Wells wanted his reader to mimic, from the narrative of the inner text to the 'outside' world of the narrator. 'This declining art of literature' is the fantasy-making activity that creates the Utopia, but it is also exposed here as an 'art', as artifice. Another, more 'metafictional' example of splintering the frame occurs within the internal narrative frame of *Boon*, to which I turn shortly. First, I want to consider Wells's experimentation with the structure of *The Invisible Man* as an early attempt to splinter the frame. This text resonates with allusions to the X-ray's ability to confuse internal and external spaces, and Wells's form matches his content; there are frequent shifts in voice and style that abruptly disrupt reader expectations. The reader's attention is thus 'raised' from the superficial conventions of nineteenth-century realism to a higher dimension of self-awareness.

98 Wells, *The Complete Short Stories*, 31.
99 Ibid., 35.
100 Wells, *A Modern Utopia*, 7.

Disruption and Disunity in *The Invisible Man*

Wells dramatized the hermeneutic process in the first part of this text by depicting the villagers in the act of 'reading' Griffin; later in the text, Wells's experiments with the narrative structure foreground the act of reading itself. *The Invisible Man* 'unfolds' in two senses of the word: there is quite literally an unravelling of the layers of representation surrounding Griffin before he is finally rendered visible again as a naked, battered corpse. Before the readers – both inside and outside the narrative frame – are allowed to 'see' his body, they must first move through multiple and sometimes contradictory perspectives on Griffin. This shifting viewpoint of the eponymous character mimics Hinton's textual constructions of the fourth dimension throughout his *Scientific Romances*. Just as Hinton asked, 'What is the Fourth Dimension?' in his first romance and then proceeded to offer multiple answers, Wells opened *The Invisible Man* with a chapter titled 'The Strange Man's Arrival', and proceeded to construct various answers to the implied question regarding this man's identity.

First the reader is given the observations of the innkeeper, Mrs Hall; then the narrative expands to include the impressions and speculations of the other residents of the village of Iping. The events of the narrative and the developing hypotheses of the villagers are presented in the matter-of-fact tone of a case-study. As Steven McLean observes, 'the influence of the detective genre is apparent as the characters make a series of increasingly sophisticated guesses as to the identity concealed by the stranger's bandaged condition'.[101] The villagers progress from the assumption, based on Griffin's bandages, that he has suffered a disfiguring accident, to speculations that he is hiding from the police, a prospective burglar, that his skin is black, or 'he's a half-breed', a 'harmless lunatic' or somehow supernatural.[102] Once faced with the truth of Griffin's situation, the characters constantly question their abilities to perceive and understand reality: 'Am I mad?' Cuss began abruptly […]. 'Do I look like an insane person?'; 'Am I drunk?' said Mr. Marvel. 'Have I had visions?'; and 'Kemp slapped his brow with his hand. "Am I dreaming? Has the world gone mad – or have I?" '[103]

Churton's worry that if he left Stella to the care of the Cornish family 'you would all be persuaded again that Stella doesn't exist' is confirmed by the villagers' reaction to Griffin. When faced with the seemingly impossible existence of an invisible man, they soon convince themselves of his unreality: 'After the first gusty panic had spent itself Iping became argumentative. Scepticism suddenly reared its head […]. It is so much easier not to believe in an invisible man'.[104] On many levels, Griffin simply does not fit into the villagers' paradigm for perceiving and understanding the phenomenal world; however, frustrated by their inability to 'read' him accurately, Griffin refuses to be ignored. As Anne B. Simpson observes, 'that the townspeople themselves are [morally] bankrupt is illustrated by their notably limited discourse on Otherness'.[105] Refusing to undertake

101 McLean, *The Early Fiction*, 69.
102 Wells, *The Invisible Man*, 20 and 23.
103 Ibid., 24, 44 and 85.
104 Ibid., 49.
105 Simpson, 'The "Tangible Antagonist" ', 136.

a will-to-attend in order to confront something outside of their perceptual frame, they instead first try to ignore Griffin, imposing a kind of social death; when this fails, they must actually kill him.

The early chapters of *The Invisible Man* present the villagers' attempts to uncover the reason for Griffin's bandages and strange behaviour, but after he reveals his invisible body to them the narrative shifts from detective mode to low comedy and broad Biblical parody.[106] When Wells introduces Dr Kemp, a scientist and former acquaintance from Griffin's student days, the tone shifts again into the first-person singular as Griffin relays his version of events to Kemp. It is only at this point, precisely midway through the text, that we are given Griffin's name. Before his conversation with Kemp, Griffin is referred to as 'the Invisible Man', 'the stranger', the 'Bogey Man', 'the Unseen', 'the voice' and various items of clothing.

As Griffin describes the struggles of his past as an impoverished student and scientific researcher living in a London slum, and the difficulties brought about by his invisibility – he is perpetually ill from walking around naked in the cold; he is harassed by children, dogs and the blind; and he risks being run down every time he ventures onto the street – he becomes more of a sympathetic figure. However, Wells undercuts this first-person narration by embedding it within a larger dialogue between Kemp and Griffin. Kemp works as a foil to Griffin's narration, questioning and protesting at Griffin's actions. He challenges Griffin when he tells of how he spitefully set fire to his boarding house in London, and by his feeble justification, that 'it was the only way to cover my trail – and no doubt it was insured', Griffin again reveals his violent temper.[107] Any straightforward reading of Griffin's villainy is further complicated when he anxiously implores Kemp: 'You don't blame me, do you? You don't blame me?'[108]

Numerous critics regard the ambiguous nature of Griffin's character as a significant technical flaw. John Batchelor argues that 'the reader's sympathies for much of the novel are *for* Griffin and against, for example, the oafish inhabitants of Iping […]. Half-way through this novel Wells forces it against the grain of our sympathies – and severely damages it in my view'.[109] In Batchelor's opinion, *The Invisible Man* is one of Wells's 'less successful' romances because the question, 'Is the novel finally a moral allegory about the abuse of science or a heroic fable about an outsider who refuses to live by middle-class standards?' remains unanswered.[110] It is this kind of reductive reading that Wells challenged in the elaborate framing of *A Modern Utopia*. Wells's frustration with emphasis on unity of aesthetic vision was also at the heart of his quarrel with Henry James.

In opposition to Batchelor, Robert Sirabian claims that the disunity of *The Invisible Man* allows for 'an explorations of tensions' of opposing worldviews, making this text 'more than a scientific romance'.[111] However, the foregrounding of such tensions *is* in

106 It is beyond the scope of this discussion to fully address the elements of Biblical parody in *The Invisible Man*; see instead Stetz, 'Visible and Invisible Ills'.

107 Wells, *The Invisible Man*, 102.

108 Ibid., 119.

109 Batchelor, *H. G. Wells*, 22, original emphasis.

110 Ibid., 30.

111 Sirabian, 'The Conception', 384.

fact what makes this a scientific romance. The combination of science and fantasy, and the tensions between the romantic subject and strictures of 'objective' reality, underlie the unstable fiction of the fourth dimension in Hinton's *Scientific Romances* and were foregrounded by Wells in his attempt to develop a four-dimensional literary aesthetic. *The Invisible Man* is a 'grotesque romance' not only because of the gruesome descriptions of Griffin's body, but because even though he is a monstrous and morally reprehensible figure, he is not represented as totally inhuman (despite Kemp's claims).[112] In fact, there are places where the narrator encourages us to empathize with Griffin.

After the dialogue between Griffin and Kemp, the narrative is briefly drawn outward to an omniscient, third-person account of events as Kemp betrays Griffin to the police. Once Griffin is on the run again, however, the narrative shifts yet again; in reporting Griffin's attack on a local resident in 'The Wicksteed Murder' chapter, the tone is journalistic. Here the narrator relays the evidence found at the murder scene, oscillating between cool speculation on motive and sensational description: 'The Invisible Man seems to have rushed out of Kemp's house in a state of blind fury. […] No one knows where he went nor what he did. But one can imagine him hurrying through the hot June afternoon'. The narrator pulls the reader's emotions in opposing directions by arguing sympathetically for Griffin, while also describing the outcome of his violent behaviour in the details of the vicious murder that he apparently perpetrated. Then we are encouraged to empathize with Griffin's outrage at Kemp's betrayal:

> No doubt he was almost ecstatically exasperated by Kemp's treachery, and […] we may still imagine and even sympathize a little with the fury the attempted surprise must have occasioned. […] He had evidently counted on Kemp's cooperation in his brutal dream of a terrorized world.[113]

Here the request for the reader's identification is undercut by a reminder of Griffin's desire for a 'Reign of Terror'. The narrator also speculates on the possibility of extenuating circumstances that could lift 'the murder out of the realm of the absolutely wanton', by reminding the reader that Griffin was being pursued and hounded by the police and angry villagers, and that 'the evidence that he had the iron rod [the murder weapon] in hand before he met [Mr] Wicksteed is […] overwhelming'.[114]

The narrator continues, painting a scenario in which Griffin kills Wicksteed in self-defence, explaining that 'no doubt the Invisible Man could have easily distanced his middle-aged pursuer under ordinary circumstances, but the position in which Wicksteed's body was found suggests that he had the ill luck to drive his quarry into a corner'.[115] Again, the mitigating evidence of the position of the body, and the narrator's generous speculation that 'the sight of his victim, bloody and pitiful at his feet, may have released some long pent fountain of remorse' is undermined by the details of the 'bloody

112 The complete original title of the novella is *The Invisible Man: A Grotesque Romance*.
113 Wells, *The Invisible Man*, 129.
114 Ibid., 129–30.
115 Ibid., 132.

and pitiful' state of Wicksteed's corpse, recalling an earlier description of how Griffin 'stopped this quiet man, going quietly home to his midday meal, attacked him, beat down his feeble defences, broke his arm, felled him, and smashed his head to a jelly' with an iron rod.[116] In this chapter we see a particularly well-controlled example of how Wells's writing arouses and then subverts reader expectations.

The terror of the final chase scene, wherein Griffin pursues Kemp into Port Stowe with the intention of murdering him, is complicated by the fact that Kemp ends up running 'in his own person the very race he had watched with such a critical eye from the belvedere study only four days ago'.[117] The previous race had been run by the tramp, Thomas Marvel, who was also attempting to escape Griffin's murderous rage. Kemp's observation of Marvel's flight from Griffin is critical in two senses: his gaze is both detached and condemnatory. Like Bailey, Kemp watches the chase from a 'pleasant little room, with three windows, north, west, and south' where 'there was no offence of peering outsiders', a position of superiority from which he judges the scene below: 'Another of those fools,' said Doctor Kemp. 'Like that ass who ran into me this morning round a corner with his "'Visible Man a-coming, sir!" I can't imagine what possesses people'.[118] Kemp's disdain of Marvel's plight is repaid by his own neighbour's selfish reaction to the sight of Kemp later fleeing Griffin:

> He ran to shut the French windows that opened on the veranda; as he did so Kemp's head and shoulders and knee appeared over the edge of the garden fence. In another moment Kemp had ploughed through the asparagus, and was running across the tennis lawn to the house.
>
> 'You can't come in,' said [Kemp's neighbour,] Mr. Heelas, shutting the bolts. 'I'm very sorry if he's after you, but you can't come in!'[119]

Kemp's recapitulation of Marvel's race takes place in a chapter appropriately titled, 'The Hunter Hunted', where we see a number of reversals. Kemp, who has instigated the police hunt for Griffin is now being pursued by Griffin to be his first execution in his Reign of Terror. By the end of this chapter, however, the power has changed hands yet again as residents of Port Stowe chase Griffin and beat him to death in a frenzy of mob violence. After Griffin's corpse returns to visibility, the imagery Wells uses to describe his body is both pathetic and fierce:

> When at last the crowd made way […] there lay, naked and pitiful on the ground, the bruised and battered body of a young man about thirty. His hair and beard were white, – not grey with age, but white with the whiteness of albinism, and his eyes were like garnets. His hands were clenched, his eyes wide open, and his expression was one of anger and dismay.[120]

Griffin's pre-invisibility 'otherness' is depicted here: he was an albino. Though 'necessary' for the plot (as Griffin explains, it is impossible to render the pigment in hair

116 Ibid., 132, and 131.
117 Ibid., 145.
118 Ibid., 70.
119 Ibid., 144.
120 Ibid., 148.

transparent), with his albinism, Griffin is already an exception to Anglo-Saxon normativity. Even before his body becomes a site for a confluence of anxieties from the supernatural to the transgressive power of X-rays, his pigmentless body is a sort of parody of the discourse of 'whiteness'. Bettyann Holtzmann Kevles cites two separate occasions where American doctors reported that they 'had successfully combined X-ray treatment with radium to bleach the skins of Negros white'; Griffin, like the subjects of these appalling experiments, is an 'other' who is transformed into a caricature of normativity.[121]

Griffin's downfall is precipitated by the fact that though his body is invisible as a spirit, he remains crudely physical. Throughout the text he is circumscribed by material concerns: lack of money and privacy, hunger and the vulnerability of his naked, transparent body. Within the narrative frame of *The Invisible Man*, Griffin is a fiction, a fantasy of omniscient masculinity – Ruskin's paradoxical invisible man – brought grotesquely to life. Though his invisibility gives him power over his contemporaries, he is still reliant on others to confirm his identity ('What good is pride of place when you cannot appear there?' he asks Kemp).[122] Even the most educated of the other characters, Dr Kemp, is unable to adequately 'read' Griffin – it is only with Griffin's assistance that Kemp is able to register the events leading up to his invisibility. As a prosaic and superficial reader, Kemp is not able to raise Griffin above the status imposed upon him by the villagers as monstrous and other.

It is near the end of his conversation with Kemp that Griffin begins to 'dream of playing a game against the race'.[123] Kemp responds by urging Griffin: 'Publish your results; take the world – take the nation at least – into your confidence'.[124] The request that Griffin publish his results (and himself – his invisible body *is* the result of his research and experimentation) before the public gaze has little impact on Griffin for two reasons: firstly, Kemp only makes the suggestion as an attempt to stall Griffin while he awaits the arrival of the police and, secondly, because having already proved himself illegible to Kemp and the Iping villagers, Griffin does not have reason to hope for anything better by going public. His access to the four-dimensional formula that allows him to seemingly transcend the social contract does not allow him to transcend his material origins. Positioned as a painful intermediary between the three-dimensional everyman and the four-dimensional higher consciousness, Griffin's name is particularly apt: not only is he, like the gryphon, a fantastical beast, but he is also a 'newcomer', and – in racist nineteenth-century evolutionary logic – a combination of 'higher' and 'lower', of mixed racial origin, one who is perhaps able to 'pass'.[125] Not satisfied with passing as this 'caricature of a man', Griffin disrupts the villagers' frame of reality, just as that other visitor from another realm, the Angel, does in *The Wonderful Visit*. Wells took pains to ensure that

121 Kevles, *Naked*, 49.

122 Wells, *The Invisible Man*, 121.

123 See Hardin, 'Ralph Ellison's *Invisible Man*', 99. Hardin explores the implications of Griffin's game against the 'race', observing that 'there is an intriguing convergence of "passing," miscegenation, and homoeroticism within the metaphor of invisibility' (97).

124 Wells, *The Invisible Man*, 125.

125 As Hardin observes, the *OED* defines 'griffin' as a gryphon; as a 'greenhorn' or 'newcomer', particularly with reference to a European recently arrived in India; and, in nineteenth-century Louisiana parlance, a 'mulatto'.

we read neither character as metaphysical: his 'Digression on Angels' (which explains that the Angel is not of the religious type, the kind 'which it must be irreverent to touch') interrupts the narrative flow of *The Wonderful Visit*, and the workings of Griffin's internal organs render him 'grotesquely visible' at times.

In her discussion of nineteenth-century microscopic and X-ray imaging, Cartwright argues that 'a "cubist" visual culture developed in part as a cultural response both to the epistemological instability of human observation and to the sight of the human body'.[126] In writing of a cubist visual culture, Cartwright is careful to explain that she does not refer solely to the artistic movement associated with Picasso and Braque, among others; she is also interested in the role that developments in imaging the human body, as well as moving picture technology, played in 'the formation of a pervasively cubist culture – a culture that reconfigures the bodily interior as an endlessly divisible series of flat surfaces and mobile networks'.[127] The 'cubist culture' that Cartwright identifies here can be extended beyond modernist representations of the body to turn-of-the-century literary aesthetics as well. Hinton's attempts to represent four-dimensional objects and four-dimensional consciousness as a series of three-dimensional 'slices' is part of this cubist culture, as is Wells's splintering frame technique. The 'flattening' tendency foregrounded in these cubist texts, which Cartwright calls 'the abhorrence of dimensional form' – in the case of Wells and Hinton at least – resulted from an attempt to represent a higher dimensionality within a lower-dimensional medium. Thus the 'slices', or individual short texts within Hinton's *Scientific Romances*, like the 'solid' paper of his cube exercises, are, in comparison with his idea of a spatial fourth dimension, 'flat'.

Wells, like Braque and Picasso, used a kind of literary *trompe l'oeil* to 'declare' rather than deny the surface, or textuality, of his medium.[128] In this sense his texts are 'flat'; just as his characters are, as E. M. Forster said, 'flat as a photograph'.[129] Unable to accept the premise of his four-dimensional aesthetic, Wells's flat characters and his splintering frame technique were often disregarded by contemporaries as symptoms of his deficiency as a novelist. For the majority of the years Henry James and Wells were friends, these 'deficiencies' were the frequent topic of discussion between the two men; Henry James sought to 'correct' these problems in the younger writer's prose, and the tensions that resulted eventually erupted into Wells's cruel critique of James in *Boon*.

The Spoils of *Boon*

The complex structure of Boon is reflected in its full title: *Boon, The Mind of the Race, The Wild Asses of the Devil, and The Last Trump: Being a First Selection from the Literary Remains of George Boon, Appropriate to the Times, edited by Reginald Bliss, with an Ambiguous Introduction by H. G. Wells.* In this text Wells not only vented his frustration with Henry James's theory of the art of fiction, but he also took some steps toward establishing a theory of his

126 Cartwright, *Screening*, 91.
127 Ibid., 91.
128 See Greenberg, *Art and Culture*, 72.
129 Forster, *Aspects of the Novel*, 99.

own. This text was designed in direct opposition to what Wells perceived as James's literary aesthetic: it is fragmented, discursive and full of caricature. Wells refused to respect James's appeal to literary artists to abstain from 'giving themselves away' by interrupting the narrative with authorial commentary.[130] As a final nail in the coffin of the possibility of James approving of Wells's latest literary offering, Wells's mouthpiece, George Boon, parodies James's writing style in a short story he has written (which is included in *Boon*), titled 'The Spoils of Mr. Blandish'.

Presented as the literary remains of popular Edwardian novelist George Boon, *Boon* is composed of the fragments of Boon's speculations, short stories and cartoons, as well as the recollections of the editor (Reginald Bliss), of Boon and their circle of friends.[131] Throughout the various sections of the book, Boon is planning to write a novel on what he calls the 'Mind of the Race', which is to be an update of W. H. Mallock's *New Republic*, featuring discussions between many contemporary literary celebrities. Henry James, George Moore and Edmund Gosse, among others, wander through the fragments of Boon's novel. Other real literary figures also appear within Bliss's recollections: Ford Madox Ford briefly interrupts Boon's discourse on Henry James from over the garden wall where he is playing badminton with a wholly fictional character named Wilkins. The distinctions between the fictional and the metafictional are further blurred when Wilkins questions Boon (along with another character named Edwin Dodd) on his idea of the 'Mind of the Race':

> 'All through this book, Boon,' he [Wilkins] began.
>
> 'What book?' asked Dodd.
>
> '*This one we are in*. All through this book you keep on at the idea of the Mind of the Race. It is what the book is about; it is its theme'.[132]

In this metatextual moment, Wilkins acknowledges his fictional status within the book and, like Dodd, we are unclear whether it is Boon's book or *Boon* referred to here. The confusion resulting from this narrative interruption causes a moment of 'seizure', which, in Baudrillard's words, 'rebounds on the surrounding world we call "real," revealing to us that "reality" is nothing but a staged world'.[133]

The Mind of the Race itself is proposed as a dimension of consciousness that transcends this staged world. Both Wells's book *Boon*, with its fragmented narratives, and Boon's unfinished book discussed within *Boon*, are about this higher consciousness. By splintering the narrative frame of *Boon* with the insertion of extratextual elements, Wells was modelling the path he pushed his reader to take: he wanted them to recognize something beyond the three-dimensional physical and social world. Just as the

130 Matthiessen, ed., *The James Family*, 355.

131 The circle of literary friends in *Boon* is likely based on Wells's own friendship group from the late 1890s to around 1915; this circle included Henry James, Joseph Conrad and Ford Madox Ford. See Delbanco, *Group Portrait*.

132 Wells, *Boon*, 179, emphasis added.

133 Baudrillard, *Selected Writings*, 156.

three-dimensional world of the reader exists outside the textual realm of Wilkins, Dodd and Boon, this higher dimensional consciousness – Boon's Mind of the Race – exists outside of the reader's experience. Boon describes the Mind of the Race as

> something more extensive than individual wills and individual processes of reasoning in mankind, a body of thought, a trend of ideas and purposes, a thing made up of the synthesis of all the individual instances, something more than their algebraic sum, […] a common Mind expressing the species.[134]

This Mind, according to Boon, was just beginning to awaken to self-consciousness at the turn of the twentieth century. Drawing on the language of Emerson and Nietzsche, Boon/Wells described this Mind of the Race as a fusion and division of 'Over-minds' for which 'there is no birth, no pairing and breeding, no inevitable death. That is the lot of such intermediate experimental creatures as ourselves'.[135] Unlike the *Übermensch*, Wells's Over-minds are *plural*: they are the collective consciousnesses of various human cultures, which in turn combine to form a singular Mind, a universal collective.

Just as Hinton wanted to make his readers aware of a space or a condition of being that transcends the petty differences of everyday life, Boon imagines a transcendent conglomeration of human consciousness – the Mind of the Race – that can look impartially upon the three-dimensional world of individuals. Boon sees literature as one way of awakening this Mind to consciousness: 'Literature, the clearing of minds, the release of minds, the food and guidance of minds, is the way, Literature is illumination, the salvation of ourselves and of every one from isolations'.[136] When, citing past and present atrocities such as the Great War, Wilkins challenges Boon's theory of a collective Mind of the Race, claiming it might simply be 'a gleam of conscious realization that passes from darkness to darkness –'. Boon can only support his useful fiction by enacting his own will-to-believe: '"*No.* […] Because I will not have it so," said Boon'.[137]

The perspective afforded to this collective mind sounds very similar to the view from that other useful fiction, Hinton's fourth dimension. The rise to consciousness of the Mind of the Race may indeed result in Hinton's 'new era' of thought. Hinton argued that 'to our ordinary space-thought, men are isolated, distinct, in great measure antagonistic. But with […] higher thought, it is easily seen that all men may really be members of one body, their isolation may be but an affair of limited consciousness'.[138] Boon explains that the rise to self-consciousness of the unified Mind of the Race is necessary for the peaceful progress of humanity; in fact, he argues, the present failure to recognize it lay at the root of the Great War. If literature is the key to the Mind of the Race, then, the implication is that inappropriate forms of literature – such as James's – are actually detrimental to the progress of humanity. Boon is rather unequivocal about the value of

134 Wells, *Boon*, 42.
135 Ibid., 44.
136 Ibid., 209.
137 Ibid., 183, original emphasis.
138 Hinton, *A New Era*, 97.

Henry James's aesthetic: When asked by a companion, 'Ought there, in fact, to be Henry James?', Boon responds, 'I don't think so'.[139]

Wells later stepped back from the extremity of this statement; for example, in his *Experiment in Autobiography* (1934) he allowed that both he and James were 'incompatably [*sic*] right'.[140] He was correct here, though he did not develop this idea further: the common concern of both Wells and James with movement across multiple perspectives stemmed from a shared interest in inducing a particular state of aesthetic awareness in the reader. The works of both men self-consciously resist passive consumption. 'The rhetoric of spatial relations' features heavily in both writers: the hierarchy implied by much of this spatial rhetoric, including the dimensional analogy, points to a distinction between those 'readers' who can access this higher aesthetic and those who cannot.[141] Mark McGurl observes the contradictory impulses in his analysis of the dimensional analogy in *Flatland*:

> The ideological significance […] is still an open question: Does it suggest that seen from a higher dimension, Flatlanders achieve a moral equivalence more important than their class differences, that they are equal in the eyes of an all-seeing God? Or does it rather suggest the existence of an ultraexclusive space that might be inhabited by a few godlike persons – a technology of social distinction […]? The answer […] is that it is able to imply both of these positions at the same time.[142]

For Hinton, as an egalitarian popularizer of science, this 'pathos of distance' was available to anyone willing to undertake his project.[143] In the case of Wells and Henry James, the matter was more complicated. While Wells had his Over-minds and Samurai (a priestly class of intellectual aristocrats first introduced in *A Modern Utopia*), James had his central consciousness, the character who sees and understands the most and whose level of privileged knowledge is closest to James's own. Both writers used these figures implicitly to raise their readers' level of awareness.

The difference between Wells and Henry James was one of degree, not kind. With his splintering frame technique, Wells wanted to forcibly enact in his readers the kind of perspectival shift that would generate an awareness of – and, by implication – access to, this 'ultraexclusive space'. In James's fiction, particularly his later period, it is the individual central consciousness that accesses the privileged higher perspective, transcending the limited consciousnesses of the other characters; arguably, the perspective of the Jamesian central consciousness most closely resembles James's own from his position in the extratextual dimension. While Wells, particularly in his fiction, attempted to create a four-dimensional reader by disrupting the narrative frame of the text, James dramatized one character's growing awareness of this other dimension. Any critique of the James and Wells debate that attempts to establish hard and fast divisions between the literary

139 Wells, *Boon*, 94.
140 Wells, *Experiment*, 2: 493.
141 McGurl, *The Novel Art*, 56.
142 Ibid., 61.
143 Nietzsche, *Beyond Good and Evil*, 192.

aesthetics of either writer will fall short, because, as Sarah B. Daugherty rightly observes, James's 'critical writing […] is less notable for its syntheses than for its oscillations', and the same can be said of Wells.[144] However, both writers clearly appreciated the others' work enough that, as Wells later put it, they 'bothered' each other.[145]

In his study of Gertrude Stein's writing and its relationship to William James's ideas, Steven Meyer makes the case that 'instead of being modelled on scientific experimentation, her writing turns out to be a form of experimental science itself. […] She reconfigured science *as* writing and performed scientific experiments *in* writing'.[146] Interestingly, this insight allows us to rethink Wells's splintering frame technique as well. Scientifically trained like Stein, Wells shifted from science teaching and writing to fiction and literary criticism early in his career. His attempts to motivate the reader to self-reflection and social change through the splintering frame technique became a kind of experiment in hyperspace philosophy. Just as in Hinton's *Scientific Romances* and cube exercises, Wells frequently disrupted the narrative flow of his story to call the reader's attention to the world outside the text. The reader is given instructions for a mental or physical task, or is pushed from one discourse into another (see, for example, Hinton's frequent interruptions of 'The Persian King' to explain physical science theory, or Wells's introductory frames for *A Modern Utopia*). In these experiments in hyperspace philosophy, the reader is the subject: just as the plane beings of flatland narratives are often subjected to the epistemological violence of either the sudden intrusion of a hyperbeing or the equally sudden removal into another dimension, the reader of a Wellsian splintered narrative is abruptly brought to awareness of an extratextual dimension.

Though Wells was concerned with exposing the artificiality of conventional narrative structure, his work should not be read anachronistically as poststructuralist or postmodernist.[147] While there is a shared lack of nostalgia for the past in both Wellsian and postmodernist aesthetics, Wells's splintering frame technique, when read through the lens of the fourth dimension, reveals a clear bifurcation between the assumed world of the text and the external 'real' world of the reader. Wells accepted the nineteenth-century scientific epistemological dichotomy between the object and subject. While this may seem a contradictory claim, as Wells was continually drawing attention to his authorial status as a subjective shaper of events in his novels (which continually vexed James), the impact of his narrative intrusions is predicated upon the very assumption of the separation they were created to violate. Thus, in order for his fictions to work as scientific experiments, some fundamental distinction between observer and observed, textual and extratextual, must be maintained. Although desiring to transfigure nineteenth-century narrative conventions, Wells still presented the quest for knowledge as penetrative and invasive.

Perhaps surprisingly (as *The Turn of the Screw* would become a favourite of the New Critics), Henry James's theory of literary art most closely approaches the poststructuralist

144 Daugherty, 'James and the Ethics of Control', 64.

145 Wells, *Experiment*, 2: 488.

146 Meyer, *Irresistible Dictation*, xxi, original emphasis.

147 See, for example, Hardy, 'Wells the Poststructuralist'; and Caldwell, 'Time at the End of Its Tether'.

creed that 'there is nothing outside the text'.[148] It was in his final letter to Wells that James made his famous claim:

> So far from that of literature being irrelevant to the literary report upon life, and to its being made as interesting as possible, I regard it as relevant in a degree that leaves everything else behind. It is art that *makes* life, makes interest, makes importance, for our consideration and application of these things and I know of no substitute whatever for the force and beauty of its process.[149]

For James, art creates our entire world; 'reality' is mediated through each individual's process of consciousness. As an author, James's primary vocation was to perform the function of a selective and constructive consciousness of the highest aesthetic refinement possible.

Wells understood the difference between his theory of fiction and James's more clearly than critics usually acknowledge. In the extant fragment of his response to the above letter, Wells wrote:

> I don't clearly understand your concluding phrases – which shews no doubt how completely they define our difference. When you say 'it is art that *makes* life […]', I can only read sense into it by assuming that you are using 'art' for every conscious human activity. I use the word for a research and attainment that is technical and special.[150]

Wells was correct here; in his letter Henry James used 'art' to indicate the constructive nature of consciousness, something his brother William also accentuated in his radical empiricism. However, Wells – like William – viewed literature as something separate; it was just one particular 'science' of interpreting and representing the world. Thus, Wells was conducting a kind of psychological experiment on his readers; the penetrative aesthetic of the splintering frame is supposed to function as a catalyst for raising the reader to a higher dimension of consciousness. Conversely, Henry James celebrated the unity of the narrative; the result is a hyperreal emphasis on surface where the act of 'reading' – of aesthetic perception – becomes a means of lowering the 'dam' for the Jamesian central character, so that it may momentarily 'spill over' into the extratextual dimension, where James himself resides.

148 Derrida, *Of Grammatology*, 163.

149 Edel and Ray, eds, *Henry James and H. G. Wells*, 267, original emphasis.

150 Ibid., 267, original emphasis.