'A series of surfaces': The New Sculpture and Cinema

Rebecca Anne Sheehan

This article examines the impact of photographic motion studies, a major precursor to the cinema, on the 'vitality' that characterized Britain's New Sculpture movement. I argue that cinema is an essential yet overlooked influence in the transformation from neoclassical to modernist sculpture in late nineteenth-century Britain. From Rodin's collections and commissions of chronophotography, it is clear this proto-cinematic art seriously impacted his studio, bringing into relief sculpture's temporal presence and the democratic contingencies of its reception. After studying under Rodin in Paris, Victorian sculptors like Harry Bates returned to Britain to participate in a movement whose vitalization of form and democratization of reception was discernibly influenced by the photographic arts

Fig. 1: Sir Frederic Leighton, *Athlete Wrestling with a Python*, 1877, bronze, Tate Britain, London. Wikimedia Commons, photograph by Andreas Praefcke.

Fig. 2: Leighton, detail from *Athlete Wrestling with a Python*, Tate Britain, London.
Wikimedia Commons, photograph by Andreas Praefcke.

and their interface with sculpture in Rodin's workshop. I will argue that chronophotography also helped New Sculpture to incorporate the viewer into the sculptural work, one of the movement's characterizing traits. This is demonstrated by an examination of the relationship between the work of Rodin, which was explicitly influenced by chronophotography's perception of movement, and that of Frederic Leighton's *Athlete Wrestling with a Python* (1877) (*Figs. 1, 2*). Leighton's sculpture inaugurated the New Sculpture by radically demonstrating a 'vitality' that acknowledged the viewer's mobility in ways ultimately indebted to chronophotography. I then consider how this prototype to the cinema democratized the nature of sculptural reception by making the contingencies of sculpture's presence visually evident. These contingencies are reflected in New Sculpture's use of the multiple, an example of which can be seen in Sir Alfred Gilbert's Winchester *Victoria*. To understand New Sculpture's use of the multiple, I turn to Leo Steinberg's theory that Rodin's multiples are a reference within the work to the fragmented and discontinuous process by which a viewer apprehends it. Steinberg's theory thus illuminates the ways in which cinema helped cultivate through the multiple a democratized perspective within sculpture.

Chronophotography's impact on nineteenth-century sculpture

From the 1870s, chronophotographic experiments attempted to picture duration, breaking movement down into a series of photographic images or 'motion studies'. By the late 1880s, the reanimation of these images by chronophotography's most prominent innovators Etienne-Jules Marey and Eadweard Muybridge laid the foundations for early cinema's emergence from still images projected at a frame rate just fast enough to fool the

human eye into perceiving *apparent motion* (*Fig. 3*). By this time, chronophotography was the subject of notable debate in the European art world. That photographic and chronophotographic reproduction would interest the arts of painting and sculpture is unsurprising given how these technologies accomplished a spatial representation of the world for which these arts strived, only without the inevitably subjective intervention of the human hand. Articles in British and French art journals contemporaneous with the circulation of chronophotographic experiments debated the impact photographic representations of movement would have on the visual arts. For example, in an article entitled 'The Paces of the Horse in Art' that appeared in the *Magazine of Art* in 1883 (the year in which two of Auguste Rodin's sculptures, *Age of Bronze* and *John, the Baptist* sensationalized the Royal Academy's Summer Exhibition), the author exemplifies the art world's concern with the revelations of chronophotography by noting that

> a new era of animal painting is about to be inaugurated. It is not a renaissance we are to expect, but a revolution; for it appears that [. . .] artists from all times have wrongly represented the paces of quadrupeds. It will be asked, What artists, what sculptors are to figure as the leaders in this new
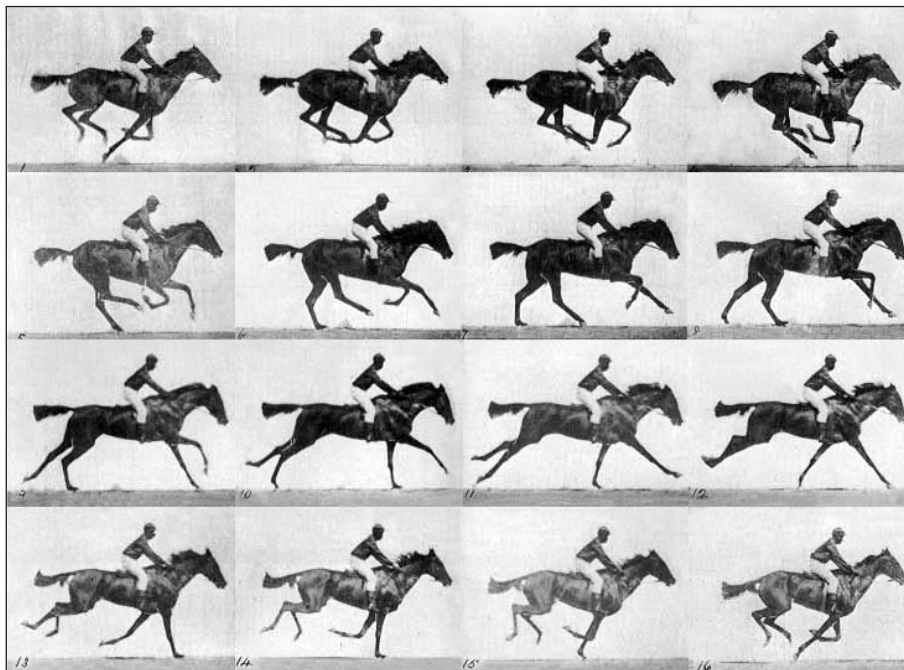

Fig. 3: Eadweard Muybridge, *Human and Animal Locomotion*, Plate 626, photographs taken between 1878 and 1887. Wikimedia Commons.

departure? [. . .] There are none. It is the odograph and the
camera which are to be crowned with laurels.[1]

The impact of the photographic arts was felt on sculpture as early as the
1870s when Rodin began collecting Muybridge's motion studies, even as
he bemoaned their misrepresentation of time.[2] Rodin's workshop had a tre-
mendous influence on New Sculpture. Harry Bates and others apprenticed
with him, and Rodin's work was routinely exhibited alongside Leighton's.
Given British art journals' interest in chronophotography at this time, and
its apparent influence on Rodin (who commissioned photographs of his
own sculptures that, when lined up, resemble motion studies), the effect
cinema's major precursor had on British sculpture is not hard to imagine.

Chronophotography provides a compelling pretext for Edmund
Gosse's 1894 suggestion that it was the 'vitality' of the New Sculpture
that distinguished the movement from earlier sculpture. Gosse nomi-
nated Leighton's *Athlete Wrestling with a Python* as an inaugural work of
New Sculpture for presenting 'something far more vital and nervous' than
what had come before it, 'a series of surfaces, varied and appropriate, all
closely studied from nature'.[3] This description of *Athlete*'s 'series' is also a
fitting description of Marey's and Muybridge's photographic motion stud-
ies which had wide circulation in Britain's art world by 1894, the year of
Gosse's essay. David Getsy notes that the *Athlete* sculpture '*demands to be
experienced over time*'. I argue that what Getsy observes and what subtends
Gosse's description is a cinematic quality of *Athlete*'s composition that
betrays the temporalization of sculpture as a result of the impact on the
cinematic arts.[4] As New Sculpture ruptured the barriers between 'high'
and 'decorative' art in this era, transitioning its exhibition and reception
from the gallery to public urban spaces, it also explicitly acknowledged
the complete mobility and temporality of its 'frame' (that is, the 'frame'
of the ambulatory viewer's perception).[5] While it is often claimed that cin-
ema is the only art with a 'completely mobile frame',[6] chronophotography

[1] W. G. Simpson, 'The Paces of the Horse in Art', *Magazine of Art*, 6 (1883), 198–203
(p. 198). The author recognizes the odograph as a 'machine invented by Professor
Marey for the purpose of registering the formulae of animals' paces'.
[2] Rodin tells Paul Gsell, 'it is the artist who is truthful and it is photography which
lies, for in reality time does not stop.' See Auguste Rodin, *Art*, trans. by Mrs Romilly
Fedden (Boston: Small, Maynard, 1912), pp. 75–76.
[3] Edmund Gosse, 'The New Sculpture', *Art Journal*, May 1894, pp. 138–42 (p. 140).
[4] David J. Getsy, *Body Doubles: Sculpture in Britain, 1877–1905* (New Haven: Yale Uni-
versity Press, 2004), p. 17, emphasis added.
[5] This transition is the focus of Susan Beattie's *The New Sculpture* (New Haven: Yale
University Press, 1983).
[6] An assertion, for instance, that David Bordwell and Kristin Thompson made in
early editions of their textbook, *Film Art*. They state that 'all of the features of
framing we have examined are present in paintings, photographs, comic strips,

sparked a realization in sculptors that the frame for sculpture, unlike the painterly frame or the photographic frame, was completely mobile.

Sculpture's mobile frame

After his discovery of Muybridge's motion studies, Rodin commissioned photographs of his sculptures taken at minutely different angles and at minutely different times of day, in order to account for the varied participation of light and shadow in sculpture.[7] The nature of these commissions (which begin to resemble motion studies when viewed collectively), suggests that Rodin applied what Muybridge's motion studies had taught him about the diverse presence of a single body over time, to the diverse presence of a single sculpture from the various angles and instants at which an ambulatory spectator might view it.[8] Sculpture's 'movement', registered in these photographs' different angles as they reflect the viewer's moving apprehension, suggests that chronophotography's impact on artistic practice and perception helped introduce temporality into an otherwise spatial art. Through the photographs Rodin commissioned, it becomes clear that sculpture's presence was no longer in the province of the artist's vision but extended to the contingencies of its reception *over time*.

Just as Muybridge's motion studies prompted Rodin to commission photographs of his sculptures taken from minutely different angles *surrounding* them, the snake in Leighton's *Athlete* betrays a similar circumambulatory perspective. This perspective suggests the influence of motion studies on the work's recognition of the viewer's shaping perspective and its implicit acknowledgement of sculpture as a moving rather than a static art. As the snake wraps itself around the body of the athlete, we imagine the body (and the history of classical male nudes to which it refers) taking shape through its reaction to the snake, whose own body confines and defines it. The snake's performance of and dependence upon the viewer's circumambulatory perspective is evident in Getsy's description of the interaction between snake and athlete: 'the interdependent system of exertion between athlete and snake is evident at every point of bodily contact, so much so

_____

and other sorts of pictures. All images furnish instances of aspect ratios, in-frame and out-of-frame relations, angle, level, height, and distance of the frame's vantage point. But there is one resource of framing that is specific to cinema (and video). In film, it is possible for the frame to *move* with respect to the framed material.' *Film Art*, 8th edn (New York: McGraw Hill, 2008), pp. 194–95, emphasis in original.

[7] This tendency is especially evident in the photographs taken by Eugène Druet of Rodin's work in the late 1890s.

[8] John Tancock discusses Rodin's collecting of Muybridge's motion studies, as well as their impact on his sculpture. See *The Sculpture of Auguste Rodin* (Philadelphia: Philadelphia Museum of Art, 1976), p. 616.

that neither participant can be considered in isolation' (pp. 25–30). *Athlete* thus allegorizes sculpture's emergence not solely from the artist's intention but rather as an 'interdependent system' between the work and its reception by the *mobile* viewer. Getsy goes on to observe that Leighton's organization of the sculpture as a 'self-evident spiral' challenged hierarchies of perspective in sculpture, doing away with frontality, as Leighton

> interconnected the facets of his statue to such a degree that the action is not fully comprehensible from a single viewpoint [. . .]. The view in which one might expect the most clarity — the aspect from which the face is fully visible — provides as inadequate an account of the complexity of the struggle as do the back views. (p. 30)

The 'interconnection' of facets in this description reads as one might describe a photographic motion study as an 'interconnection of facets' of time, successive pictures providing us with various instants that would be unrepresentable through a single image. Indeed, in this period Marey and Muybridge were busy inventing machines that would 'interconnect' the photographic facets that comprised their studies of animal and human motion through animations that, like the organization of Leighton's sculpture, also took the form of spirals (the illusion of motion depends upon viewing the discrete images as they circle within a cylindrical zoetrope).[9] *Athlete*'s facets reveal themselves in succession to the circumambulatory spectator who is figured within the sculpture in the form of the spiralling snake, a reflection of the spiralling zoetrope that would animate Muybridge's drawings and Marey's tiny sculptural renderings of his photographs (*Fig. 4*). Indeed, the fact that, as Getsy has observed, 'there is no one angle from which a view of the complete work is satisfactory' suggests that Leighton's sculpture recognizes its presence as durational, consisting of *multiple* angles that together comprise its presence in the mind of the spectator. In describing the enormous extent to which 'a single vantage point' has historically assumed 'an iconic status for sculpture [. . .] from which all other views become subsidiary', Getsy invokes how 'photography of sculptural objects frequently literalizes this condition of the experience of sculpture, in which the single, most comprehensible aspect of the work subsequently organizes the recollection of the phenomenal encounter between viewer and object' (p. 31). Getsy's focus on photography prompts him to overlook the impact of *chrono*photography in this period.

---

[9] By the 1880s, Muybridge had developed the Zoopraxinoscope, which animated drawings based on his motion photographs, and Marey was experimenting with animating (and projecting) a bird in flight by making sculptural models based on his photographs of pelicans.
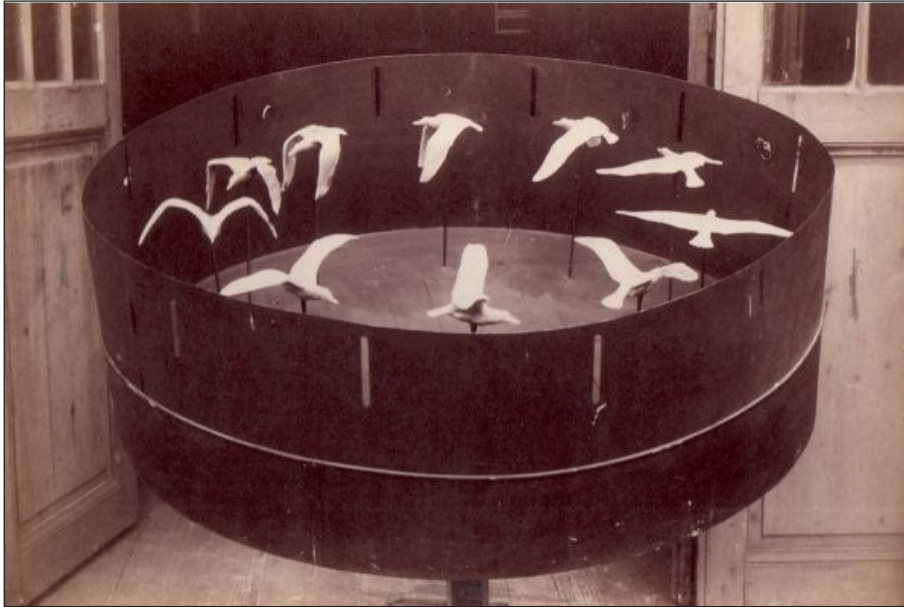
Fig. 4: Etienne-Jules Marey, Zoetrope containing small sculptures used to reproduce the movement of birds in flight. Wikimedia Commons.

The question therefore remains of what *chrono*photography does to the sculptural encounter. As I have shown, while photography can be aligned with a unifying view of the work, chronophotography demotes photography's singular vantage point to just one of multiple aspects that surround it, in space and in time. Chronophotography breaks photography's singularity, challenging the unifying image photography offers by distributing its view over the multitude of angles, surfaces, and moments that emerge through the viewer's encounter with the work *over time*. *Athlete*'s snake thus proposes a chronophotographic experience of the work.

Leighton's metapictorial and theoretical kinship to Rodin, whose artistic practice was more explicitly influenced by photography, may help to illuminate the relationship between chronophotography and New Sculpture in this period. The spatially sequential and circumambulatory photographs Rodin commissioned of his work grant a surrogate presence to the viewer similar to Leighton's python. In the work of Rodin, chronophotography seems to have enabled the realization of sculpture as a virtual world in which the viewer enjoyed participation through what Getsy has called in the context of New Sculpture a 'body double'. The camera functions as this kind of double in Rodin's studio as it 'walks' around his sculptures and pictures them from various angles, illuminating the participation of the viewer in the sculptural work.

Sculpture, early cinema, and the virtual

The earliest films produced in Great Britain experimented with using cinema to provide surrogate experiences for the spectator, immersing audiences in virtual worlds that would be impossible in reality. Surrogacy as it operates in the sculptural encounter parallels the surrogacy of early cinema, as when the camera *stands in* for the viewer on the train leaving Jerusalem in one of the Lumière Brothers' first films, for example, or as the 'body' being run over in Cecil Hepworth's *How It Feels to Be Run Over* (1900). As cinema's prototypes influenced the temporalization of sculpture in this period in ways I have suggested, its ability to transport the spectator virtually to distant geographies and places may also have impacted the extent to which New Sculpture hallmarked a new position for its spectator *within* the work. As the snake in Leighton's *Athlete* figures the viewer's circumambulatory perspective, it incorporates the viewer's virtual presence into the work. This virtual presence was an essential element of early cinema, as I will show.

The shift in the relationship between the viewer and the sculptural object in this period shares with cinema the creation of an immersive environment in which the space represented by the work and the space of the viewer is suddenly one and the same. Lev Manovich notes that sculpture provided a virtual reality for its spectator well before cinema, exemplifying a 'simulation tradition'.[10] Although Manovich makes this claim for a vast period of sculpture, the breaks that New Sculpture made with its neoclassical predecessors by inviting an embodied relationship with the viewer may clarify this description of sculpture's participation in the history of virtual reality. Manovich's observation that the 'simulation' of sculpture provides a context where the spectator 'simultaneously exists in physical space and the space of representation' is a compelling claim in light of the 'physicality of sculpture' and its 'relationship' with the viewer that became a central feature of New Sculpture (p. 113). What is evident to New Sculpture's unique ability to 'energize and animate statuary as a surrogate living presence' for the viewer is its offer of a virtual world akin to the one cinema would generate (Getsy, p. 10), especially the early 'cinema of attractions', which habitually broke the 'fourth wall', thus absorbing the viewer into its own world.[11]

The comparison between the surrogacy of the viewer in cinema and New Sculpture further suggests the impact of cinema's precursors on late

---

[10] Lev Manovich, *The Language of New Media* (Cambridge, MA: MIT Press, 1995), p. 113.
[11] Tom Gunning coined the concept of the 'fourth wall' to describe what distinguished much of pre-1906 cinema from its successors in his essay, 'The Cinema of Attractions: Early Film, Its Spectator, and the Avant-Garde', *Wide Angle*, 8.3/4 (1986), 63–70.

nineteenth-century sculpture. In Hepworth Manufacturing's *How It Feels to Be Run Over* the camera acts as the spectator's surrogate to offer the experience promised by the title (*Video 1*). The spectator is 'run over', but her body remains unharmed. The single-shot film offers an ideal perspectival plan in which a road leads from the deepest field to the foreground where the camera is positioned. A horse-drawn carriage trundles down the dirt road, but just as it approaches the viewer (the camera), it veers left. Suddenly, an automobile emerges, fast and out of control. It careens into us. The film goes black and the words 'Oh mother will be pleased!' appear (scratched on the leader, the first known example of an intertitle). In James Williamson's *Big Swallow* (1901), the camera's surrogacy allows the audience to experience being swallowed (*Video 2*). An angry man approaches the camera with his mouth open; we see a cameraman and his camera fall in; and then the film goes black. As with Hepworth's film and many others in this period, the camera's point of view combined with the experience of a darkened room (the absence of images) functions to immerse the spectator into the virtual world of the film.

At times, New Sculpture transported its viewer geographically. For instance, Edward Onslow Ford's *Shelley Memorial* (1892) (*Fig. 5*) has been described as 'transporting the viewer to the shores of Viareggio' (Getsy, p. 132). Geographic transportation of the viewer was one of the first uses for film, with the Lumière brothers honing in on film's ability to give the viewer an experience of locales she would likely never encounter outside the moving image (Niagara Falls, Africa, Jerusalem). Between 1896 and 1900, the Lumières brought exotic locales to the cafes of Paris and
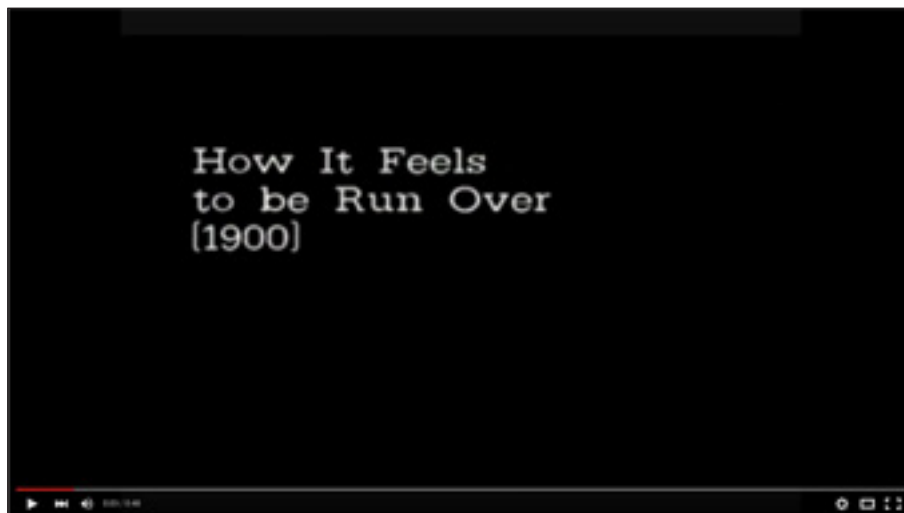
Video 1: Hepworth Manufacturing Company, *How It Feels to Be Run Over*, 1900.

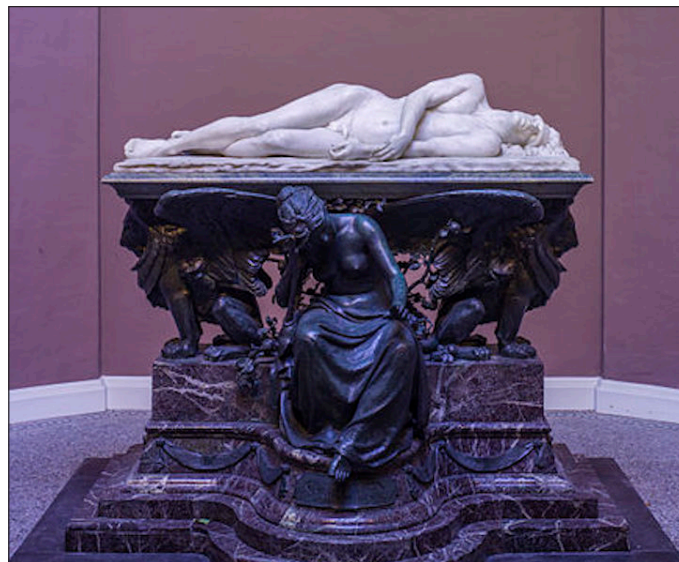*Video 2*: James Williamson, *Big Swallow*, 1901.

Fig. 5: Edward Onslow Ford, *Shelley Memorial*, 1892, marble and bronze, University College, Oxford. Wikimedia Commons, photograph by Godot13.

Lyons (*Video 3*), transporting French spectators by way of images that made themselves 'seen', as Tom Gunning terms it; a quality that Gunning contends would distinguish this period from the post-1906 period of film-making. Gunning's description is important for understanding the surrogacy at work in early cinema, for there is a sense in these films that the images are *for* the viewer, so much so that the camera often stands in for the viewer's own body. As with New Sculpture's acknowledgement of the embodied viewer, early cinema constantly registers the viewer's presence,

Video 3: Lumière Brothers, *Leaving Jerusalem by Railway*, 1896.

often organizing itself around the viewer's body just as the python wraps itself around the body of the athlete in Leighton's 1877 work; a 'metapictorial' representation of the viewer's gaze.

From multiples to montage: New Sculpture's cinematic nature

The surrogacy offered by the virtual worlds of New Sculpture and film is in keeping with how the British art world of the 1880s understood chronophotography, cinema's major precursor. Rather than bowing to the superiority of the camera's scientific eye, critics of this period habitually speak of the camera as the surrogate of an observer's eye. An article asking the brazen question, 'Is the Camera the Friend or Foe of Art?', appeared in an 1893 volume of *Studio*, noting that

> in spite of the famous instantaneous photographs by Mr. Edward Muybridge [*sic*], it is doubtful if one new pose of sterling value has been added to those consecrated by art. We have found the conventions of the Greeks, or the later schools, sufficiently near the average truth of human vision to need no correction.[12]

Rather than illuminating the aspects of a world in flux that went unseen to the human eye, chronophotography brought into relief a *subjective* and diverse experience of vision (with chronophotography being understood as a *surrogate* for the contingencies of average eyesight). Breaking up

---

[12] 'Is the Camera the Friend or Foe of Art?', *Studio*, 1 (1893), 96–102 (pp. 96–97).

photography's perceptual field, chronophotography suggests a dismantling of science's visionary authority. While the singular photograph implies an authoritative and unifying view, the multiplicity of photographs comprising the motion study suggests the possibility of numerous subjective observations or impressions, 'an uprooting of perception', as Jonathan Crary puts it.[13] In this way, chronophotography's revision of photography democratizes the role of the viewer vis-à-vis the work. The 'uprooting of perception' immanent in Muybridge's experiments helped to 'delete' space from the world of sculpture, replacing the understanding of sculpture as an occupant of a 'stable space' with the notion that sculpture was to be 'experienced over time' (Getsy, p. 16). The impact of this uprooting of perception with regard to sculpture is most apparent in the transition of British sculpture from the gallery (where the reception of a sculpture could be controlled and choreographed) to public urban sites in this period. This transition marks another democratization of reception as it reified the 'intimate singularity' and 'creative mutability' of the city dweller's perception of the work (Crary, p. 84). If the speed and circulation of bodies around the sculptural monument is evidence of the deterritorialization and speed of exchange that, for Crary, fuels a system of global capitalism ultimately disparaging of the modern subject, the contingencies chronophotography introduced to sculpture's reception are nevertheless themselves democratizing of perception.

Like Leighton's *Athlete*, Rodin's sculptures can be seen as self-reflexive statements about the medium, 'manifestos theorizing the reception of a work *within* the work'.[14] Rodin's use of the multiple is key for how his works picture their viewer's intellection, as Leo Steinberg's readings of his sculpture help show. The multiple articulates the mobile and contingent perception of the viewer as a condition *of* the work and its reception that Rodin often represents *within* the work. Never explicitly comparing Rodin's multiples to chronophotographic experiments, Steinberg nevertheless accurately observes a cinematic effect to Rodin's multiplication of his sculptures: 'Sometimes the duplications reflect Rodin's avowed interest in expressing a succession of moments; for the repetition of identical or similar poses may suggest [. . .] uninterrupted duration, or a single evolving form in time.' In reference to the multiples that span Rodin's career, Steinberg writes, 'these strange replications [. . .] must be either an artifact in mechanical multiplication, or a thought obsessively thought again.'[15]

---

[13] Jonathan Crary, *Suspensions of Perception: Attention, Spectacle, and Modern Culture* (Cambridge, MA: MIT Press, 1999), p. 142.

[14] Getsy notes that statues, 'which made such a self-reflexive statement about the medium of sculpture emerged as a constitutive element in late Victorian art [. . .] [and] functioned as manifestos for an artist's attitudes toward sculptural representation' (p. 5).

[15] Leo Steinberg, *Other Criteria: Confrontations with Twentieth-Century Art* (Chicago: University of Chicago Press, 1972), p. 358.

Here, the 'mechanical multiplication' of nature represents duration while acting as an allegory for thought and its repetitions. The viewer's encounter with the sculpture (as it repeats, displaces, differentiates, and overlaps its perceptions) can thus be seen represented *within* works containing multiples, *by* the multiple, a matter of metapictorialism. This act of perception, based on repetition and difference, bears an obvious resemblance to the mechanics of chronophotography.

Rodin's multiples represent the acts of perception and intellection that comprise their apprehension, or 'artifacts' of 'a thought, obsessively thought again'. In this way, they compare to the acts of intellection invited by Leighton's *Athlete*. For example, in *The Three Shades* the multiples walk us through a process of perceiving a single figure, just as the snake walks us through our apprehension of the male nude in *Athlete* (see *Figs. 6, 7*). The *Three Shades*'s multiples and *Athlete*'s spiral represent and acknowledge the cinematic difference and repetition of views that comprise the virtual world of the sculpture. The impulse the multiple makes more tangible in Rodin's sculpture as it pictures the role of the spectator's apprehension of a work, is also evident in Rodin's emphasis on surface in *The Age of Bronze*, that sculpture which had such a dramatic impact on the British art world when it appeared at the Royal Academy in 1884 (*Fig. 8*). The figure's pose suggests the 'coming to consciousness' Michael Hatt has noted but, as it 'touches itself', it also evokes the figuration of the self in the world through an exterior apprehension.[16] The same circuit is implied by the snake in Leighton's *Athlete*, as the work figures its own apprehension by a viewer whose sight determines its form from the outside. This situation starkly prefigures the cinematic image in which, as Vivian Sobchack puts it, 'an act of seeing [. . .] makes itself seen', and 'an act of physical and reflective movement [. . .] makes itself reflexively felt and understood' (pp. 3–4). Similarly, the spectator's vision of early cinema is at once *part* of the work (where the camera, as the spectator's surrogate 'eyes', beholds the oncoming buggy) and outside the work, watching the film.

Similar to the act of intellection in Rodin's multiples ('a thought obsessively thought again') observed by Steinberg, Rosalind Krauss sees Rodin using surfaces to '[force] the viewer to acknowledge the work as a result of a process, an act that has shaped the figure over time', noting of the works themselves that 'meaning does not precede experience but occurs in the process of experience itself'.[17] Interestingly, the example Krauss uses in arguing for the 'meaning' of sculpture occurring in the 'process of experience itself' is Rodin's *Balzac* (*Fig. 9*), a monument Rodin commissioned Edward Steichen to photograph in moonlight, acknowledging the temporal

---

[16] Michael Hatt, 'Substance and Shadow: Conceptions of Embodiment in Rodin and the New Sculpture', in *Rodin: The Zola of Sculpture*, ed. by Claudine Mitchell (Aldershot: Ashgate, 2004), pp. 217–36 (p. 222).
[17] Rosalind E. Krauss, *Passages in Modern Sculpture* (Cambridge, MA: MIT Press, 1981), p. 30.

Fig. 6: Auguste Rodin, *The Three Shades*, 1881–86, bronze, Musée Rodin, Paris. Wikimedia Commons, photograph by Daniel Stockman. Rodin's multiplication of the sculpture for *The Gates of Hell* (*Fig. 7*) further exemplifies how the viewer's relationship to the work (in terms of its scale, height, and angle in relation to her perspective) determines the work.

and spatial contingencies of the work's reception.[18] Krauss's description of the function of Balzac's wrap in this sculpture is readily comparable to the function of the snake in Leighton's *Athlete*: 'wrapping his gown around him, the figure *makes* his writer's body through that momentary, ephemeral

---

[18] Albert E. Elsen, *In Rodin's Studio* (Ithaca: Cornell University Press, 1980), p. 10.

Fig. 7: Auguste Rodin, *The Gates of Hell*, 1880–1917, bronze, Musée Rodin, Paris.
Wikimedia Commons, photograph by Roman Suzuki.

arrangement of surface' (Krauss, p. 31). Here, the gown figures the viewer's perception of the sculpture, a perception that comprises the work itself, much like the snake in *Athlete* functions as a figure for the viewer's 'ephemeral arrangement' of its 'series of surfaces'.
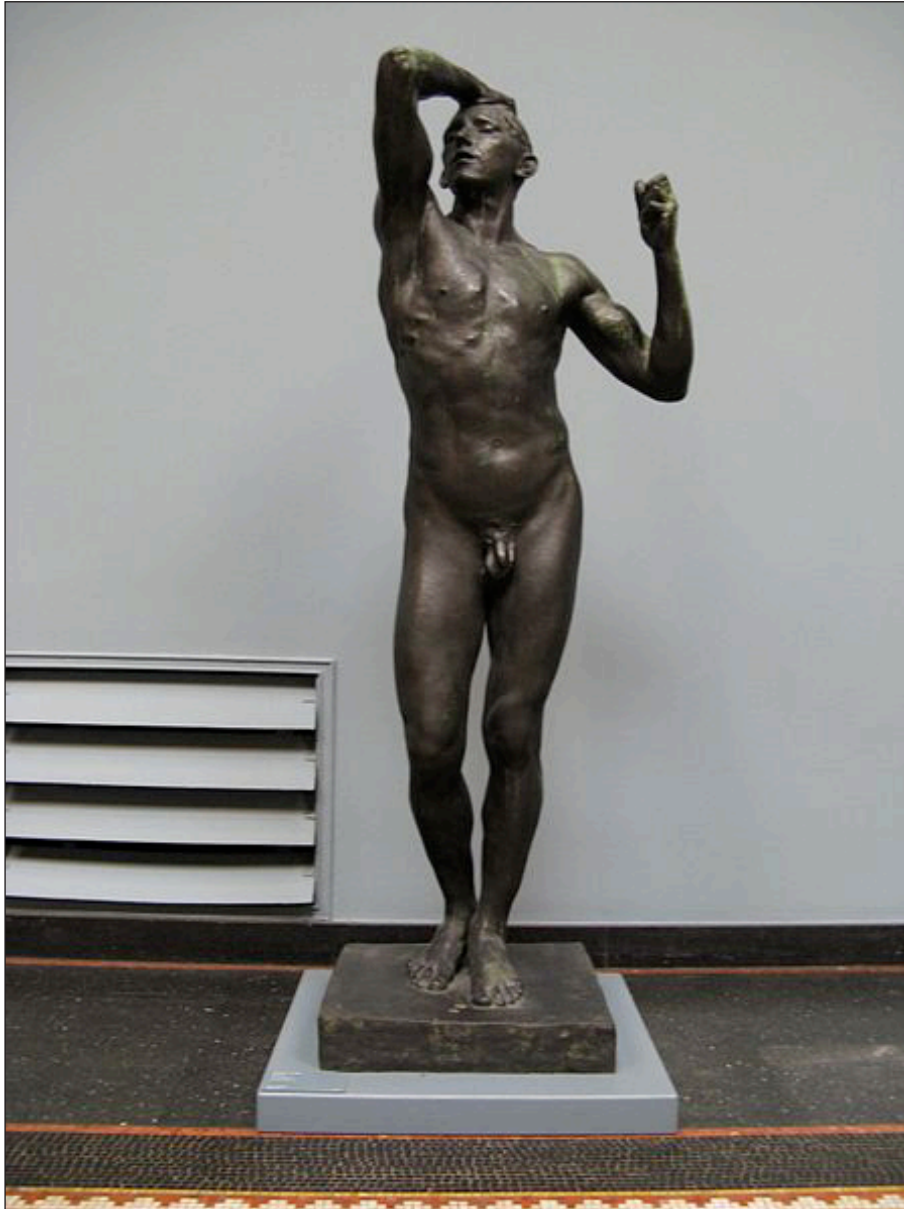
Fig. 8: Auguste Rodin, *The Age of Bronze*, 1876, bronze, Ny Carlsberg Glyptotek, Copenhagen. Wikimedia Commons, photograph by Yair Haklai. The gesture that *The Age of Bronze* makes in touching itself evokes the figuration of itself through the viewer's external apprehension of it.

Fig. 9: Auguste Rodin, *Monument to Balzac*, 1891–97, bronze, Musée Rodin, Paris.
Photograph by Edward Steichen (1911). Wikimedia Commons.

Dimensionality and movement: from *The Daphnephoria* to Pygmalion

Although Leighton's *Athlete* has been considered at a tangent from his work as a painter, specifically from *The Daphnephoria* (1874–76) (*Fig. 10*), the painting he completed before *Athlete*, I would like to propose a particularly cinematic continuum between these works. The myth of Daphne, the subject of the festival which *The Daphnephoria* depicts, thematizes a

Fig. 10: Sir Frederic Leighton, *The Daphnephoria*, 1874–76, oil on canvas, Lady Lever Art Gallery, Port Sunlight. Wikimedia Commons, photo by artrenewal.

transformation involving mobility and immobility: Daphne escapes Apollo by becoming a laurel tree. This transformation imbues Leighton's use of clay statuettes to model the painting's figures with a particularly metapictorial significance, one that emphasizes painting's transformation of a three-dimensional world into a two-dimensional one. The basis of Leighton's painting in sculpture insinuates the imaginative work of the viewer needed to recover the three-dimensional from the two-dimensional, a recovery that necessitates the imagination to move *around* the sculpture. The viewer must imagine the aspects of the figures that might not be frontally presented, challenging the dominance of a singular figural perspective (the only one afforded by two-dimensional space) with a multiplicity, in the same way that the snake figures the circumambulatory perception of the viewer in *Athlete*. In this regard, *The Daphnephoria* prefigures both cinema's reliance on a spectator's willingness to invest in the illusion of three-dimensional space it creates, and its unique ability to show all aspects of a figure on screen by having it *move* within a single space. As Leighton modelled statuettes that could be turned and moved, but transformed themselves into immovable figures within a painting (like Daphne's transformation into a static tree), his modelling process suggests that, by contrast to its sister art of painting, sculpture was a medium of movement. Fittingly, as the creation of Leighton's *Daphnephoria* dreams of cinema, Daphne's sister myth, the story of Pygmalion, is a repeated story in films from the turn of the twentieth century. Pygmalion's story of a sculptor whose work comes to life makes it a symbolic linchpin for the transformation of the spatial to the temporal accomplished by cinema's animation of photography.[19] The story of Daphne plays as the reverse (the moving body becoming the

---

[19] Lynda Nead provides an illuminating discussion of this theme in *The Haunted Gallery: Painting, Photography, Film c. 1900* (New Haven: Yale University Press, 2007), pp. 88–104.

spatial, static tree), symbolizing *Daphnephoria*'s own transformation from the temporal art of sculpture (the mobile perspectives suggested by the three-dimensional models), to the spatial art of the painting.

Fittingly for the applicability of these myths to the photographic arts, Rodin draws upon Ovid's Daphne in his 1911 conversation with Paul Gsell in which he discusses movement in art. Speaking of *The Age of Bronze*, Paul Gsell says to Rodin, 'when I look at your figure [. . .] who awakes, fills his lungs and raises high his arms [. . .] my admiration is mixed with amazement. It seems to me that there is sorcery in this science which lends movement to bronze' (Rodin, p. 67). Rodin goes on to, in his words, 'accomplish a task more difficult than animating bronze — that of explaining how to do it'. He begins his explanation by invoking Ovid:

> You have certainly read in Ovid how Daphne was transformed into a bay tree and Procne into a swallow. This charming writer shows us the body of the one taking on its covering of leaves and bark and the members of the other clothing themselves in feathers, so that in each of them one still sees the woman which will cease to be and the tree or bird which she will become. (p. 68)

What Rodin emphasizes about this transformation is key for understanding the relationship of chronophotography to the movement that undergirds his sculpture. Rodin points out that 'one still sees the woman' in the tree and the bird, implying the difference and repetition that is also the basis for chronophotography. Indeed, when Rodin more explicitly describes the application of Ovid's metamorphosis to the representation of movement in art, he explains that

> it is, in short, a metamorphosis of this kind that the painter or the sculptor effects in giving movement to his personages. He represents the transition from one pose to another [. . .]. In his work we still see a part of what was and we discover a part of what is to be. (p. 69)

The repetition of what was combined with the difference of the 'part of what is to be' is a powerful description of chronophotography and, ultimately, cinema. The transition between poses also dictates the viewer's animation of the work.[20]

---

[20] Rodin describes this process of apprehension in his interview with Gsell in a way that resembles Sergei Eisenstein's example of montage's aesthetic origins in the painting of Henri de Toulouse-Lautrec. Eisenstein discusses montage as evolving from a relationship between positions in his 1926 essay 'The Dramaturgy of Film Form', noting that

> the secret of the marvelous mobility of Daumier's and Lautrec's figures dwells in the fact that the various anatomical parts of the body are represented in spatial circumstances (positions) which are temporally various, disjunctive [...]. In Toulouse-Lautrec's

By the 1880s, Etienne-Jules Marey was animating almost life-size sculptures of birds through a zoetrope, replicating the perception of the viewer qua sculpture that chronophotography had helped Rodin imagine. As Marta Braun notes, Marey was inspired to use three-dimensional models of a bird: 'to assist in his understanding of the mechanism of the wing in relation to the movement of air and the effects of air pressure on the wing, Marey wanted to photograph the wing's movement in three dimensions.'[21] The fact that Marey was motivated to sculpt figures of birds in order better to understand the air currents *surrounding* them is compelling in relation to the dynamics we find in Rodin's and Leighton's metapictorial sculptures, which examine sculpture as a consequence of the viewer whose perception *surrounds* and wraps the work, much like the air currents do the wings of a bird, enabling it to fly. Just as Marey begins to realize that the motion of a bird's wings depends not entirely upon the wing's bones or muscles, or the body of the bird itself, but also the external forces of air currents that shape it, Leighton and Rodin are engaged in a revelatory moment for sculpture, realizing its dependence on the shaping perception of the viewer who, like the python in Leighton's *Athlete* or the wrap of Rodin's *Balzac*, shapes the figure from outside. Given how much Rodin's and Leighton's animation of an immobile 'series of surfaces' in their sculptures resemble the series

----

lithograph of Miss Cissy Loftus [*Fig. 11*], if one logically develops position A of the foot, one builds a body in position A corresponding to it. But, the body is represented from knee up already in position A + a. The cinematic effect of joined motionless pictures is already established here! From hips to shoulders we can see A + a + a. (*Film Form: Essays in Film Theory and the Film Sense*, ed. and trans. by Jay Leyda (New York: Meridian, 1959), p. 50)

Elaborating upon his theory of the representation of movement in the static arts of sculpture and painting, Rodin's description of the movement in *Marshal Ney* (by Rude) as a 'change from a first attitude [. . .] into a second' is similar to the positions of 'A + a' that for Eisenstein comprise the basis of cinematic montage in Toulouse-Lautrec's drawing. As Eisenstein describes a process that temporalizes and animates the work through the viewer's perception of 'temporally various' positions, Rodin illuminates a similar quality in Rude's work (Rodin, p. 70). Rodin writes,

The sculptor compels the eyes [...] to travel upward from the lower limbs to the raised arm, and, as in so doing they find the different parts of the figure represented at successive instants, they have the illusion of beholding the movement performed. (p. 71)

As Eisenstein's observations about Toulouse-Lautrec help to show, Rodin's description of *Marshal Ney* is quite cinematic. The spectator's eyes perform the role of the camera in articulating the work through a series of images, assembling them in space and animating them in time. It is also difficult not to see a resemblance between *Cissy Loftus*'s 'spatial circumstances (positions) which are temporally various, disjunctive', and *Athlete*'s 'series of surfaces'.

[21] Marta Braun, *Picturing Time: The Work of Etienne-Jules Marey* (Chicago: University of Chicago Press, 1992), p. 136.

Fig. 11: Henri de Toulouse-Lautrec, *Cissy Loftus*, 1894, lithograph. Wikiart. Eisenstein uses *Cissy Loftus* to illustrate the simultaneous representation of temporally various bodily positions.

of photographs that comprise chronophotography, it is interesting that Marey borrows from sculpture in his chronophotography-based studies of movement.[22]

Fragments, multiples, and a democratic role for the viewer

In Rodin's description of the Daphne-like metamorphosis that suggests movement in sculpture, the relationship between part and whole features prominently:

> [The painter or sculptor] represents the transition from one pose to another — he indicates how insensibly the first glides into the second. In his work we still see a part of what was and we discover a part of what is to be. (p. 69)

It is through the parts (the contingent assembly of viewpoints) that the participation of the viewer's apprehension of the work figures in Rodin's

---

[22] Braun points out that for the human figures, which Marey eventually subjected to the same sculptural form as his birds, he 'had a well-known academic sculptor, Georges Engrand, produce bas-reliefs' (p. 137).

sculpture, just as Leighton's *Athlete* calls upon the viewer to assemble its 'surfaces'. As John Tancock observes of the relationship between Muybridge's photographs of hands and Rodin's sculptures of hands, 'these photographs must surely have convinced Rodin of what he knew intuitively [. . .] that the hand in isolation was capable of expressing an infinite variety of emotions and could, moreover, in its own right, constitute a sculptural statement.'[23] If we understand Rodin's own repurposing of his sculptures in the context of other works (multiples) to be 'acts of intellection' qua Steinberg, the act of recontextualization can be seen as an enactment of the viewer's freedom to create a work by uniquely assembling its parts. A part, especially in total isolation from the whole, points to an infinite number of imaginative possibilities with which it may be imbued by a viewer, possibilities which suggest the variety of ways the viewer might connect *Athlete*'s 'series of surfaces'.

Just as chronophotography prompted sculpture to envision the democratic role of the viewer, the contingent perception of *anyone* who happened to behold the work at *any* time or angle, New Sculpture also democratized its subject, turning to the everyman. Nowhere is this 'everyday' subject more prominent than in Hamo Thornycroft's *The Mower*, which John Addington Symonds labelled 'Democratic Art' (quoted in Getsy, p. 83). As New Sculpture replaced systematized meaning (issued by the artist) with contingent meaning (generated by the viewer), it is not surprising that this democratic notion of reception would extend to sculpture's content, a mower suddenly given the legitimacy of a posed aristocrat or iconic god. The 'anywhere whatsoever' nature of photographic representation, a feature that contemporary art critics had recognized as impactful on the subjects of painting, no doubt influenced this change in the subjects of British sculpture. The democratic viewer essential to New Sculpture also extends to Alfred Gilbert's growing interest in 'everyday' subjects. Gilbert shares with Leighton and Rodin a regard for the mobility and participation of the viewer. As Leighton's snake wraps the athlete, simulating our mobile apprehension of the sculpture, Gilbert's sculpture similarly participates in a temporalization of sculpture through what E. Machall Cox has called its 'licentious plasticity'.[24] In fact, Cox observes 'a fusion of several arts' in

---

[23] Tancock, p. 616. Tancock writes that 'a particular impetus to his fascination with the expressive power of hands may well have been given in 1887, however, when he received his copy of Eadweard Muybridge's *Animal Locomotion* [. . .]. In volume 7 Muybridge reproduced photographs of hands that were dramatically illuminated and silhouetted against a dark background' (p. 616). Tancock particularly associates Muybridge's hands with *The Clenched Hand* and *The Left Hand*, 'generally assumed to be studies for *The Burghers of Calais*'.

[24] '[Gilbert] resolutely subordinated material to conception and, in the noble way of baroque, sought to produce a fusion of several arts, and to impart to his almost famous *licentious plasticity* something of the ombrous quality of painting and the progressive quality of music.' Quoted in Getsy, p. 88.

Gilbert's work, and 'the ombrous quality of painting and the progressive quality of music'. As Leighton's *Daphnephoria* augurs a realized temporality and mutability for sculpture, Gilbert's 'overstepping' of artistic boundaries similarly realizes change (what Cox describes as 'malleability', 'plasticity', 'the progressive quality of music') as a fundamental quality of sculpture (quoted in Getsy, p. 88).

As the viewer contingently assembles *Athlete*'s surfaces and Rodin's fragments and multiples, imagining and reimagining their relationship to the whole, so too does Gilbert invite his viewer to meditate on the ornamental detail, figuring and refiguring its relationship to those details that baroquely surround it and to the whole sculpture in which it participates. 'Plasticity' and 'malleability' replace smoothness and consistency, just as contingency replaces unity in Leighton's and Rodin's works. As something non-essential (not *part* of the body), the ornament refigures the body itself, performing a theoretical function similar to the snake in Leighton's *Athlete*. The jewels shape the presence of the body as the snake shapes the presence of the athlete. Both the jewels and the snake are figures of the contingent, mobile perception of the viewer upon which the presence of the sculptural body depends. Gilbert's incorporation of everyday figures into his work coincides with the contingencies of reception invited by his works' 'malleability'. *The Enchanted Chair* (1886) characterizes the coextensive nature of sculpture's democratic reception and subject matter as it bears all of the ornament and 'licentious plasticity' for which Gilbert's baroque sculpture became known while also featuring a sleeping woman in a disarmingly natural pose. *The Enchanted Chair* depicts both a democratic subject and preserves the prerogatives of imagination as a democratic realm (the contingencies of reception at work in the 360-degree presence of a sculpture which must be apprehended *over time*).

Sir Alfred Gilbert's sculpture was also known for its use of the multiple. In his 1887 Winchester *Monument to Queen Victoria*, the 'Victory' figure that rides the orb in Victoria's hand is, as Susan Beattie notes, the 'first known appearance in Gilbert's work of this much-repeated figure'. The queen is flanked by statuettes which, Beattie observes, are 'as real, in sculptural and emotional terms, as the figure of the Queen' (p. 207). Given this realness, it is compelling that the statuettes and the figure of the queen occupy the same representational space as they figure radically different human scales. Perhaps the relationship between them constitutes a self-reflexive assessment of the virtual world that transpires between the viewer (the queen in this work) and the work (the statuette). The Winchester *Victoria* thus invites the same *mise en abyme* of endless figuration as Leighton's and Rodin's sculpture, the paradox of the conflation of work with meta-work being unresolvable. Gilbert's Winchester *Victoria* offers multiple spatial perspectives simultaneously: the statuette suggests the subject seen from far away and the queen suggests the view of a close-up. The conflict and incongruity of scale in this monument suggests a

sculptural precursor to cinematic montage: the monument contrasts within the same space the perspective of a close-up and a wide-angle shot. As Rodin's contemporary monument *Claude Lorrain* experiments with representing Lorrain's body parts in different temporal positions *simultaneously* (a composition that earned it much criticism), Gilbert accomplishes something similar in spatial terms here.[25] As Beattie observes, Gilbert's work served as 'the basis of the composite memorial as developed in England during the following three decades' (p. 181). Rodin's cultivation of the contingent relationship between part and whole as it theorized the contingencies and mobility of the viewer's perception lend perspective to Gilbert's use of the multiple. Gilbert's use of the statuette and the multiple in this work not only resonates with the democratization of sculpture symbolized by its move from the gallery to the public space (which Beattie examines at length), but also with the formal plasticity, malleability, and ornamentation of his work which acknowledge and cultivate the contingencies of the viewer's perception. The characteristic plasticity of Gilbert's style and materials thus not only admit of contingencies of reception brought into relief by photography and chronophotography's difference and repetition, but also reveal contingencies brought about by the urban experience of the modern city dweller theorized by Baudelaire in the figure of the *flâneur*.[26] That the perception of the viewer animates the monument as a 'found object' in the urban experience of the *flâneur* lends a cinematic quality to the monument. This animation echoes the multiple as an allegory for intellection, representing the viewer's animation of a work through the multiple views she assembles of it.

New Sculpture and incompleteness

Of the relationship between parts and wholes in Rodin's work, Steinberg observes that 'Rodin's work demanded the extension of this simple logic to any anatomical cluster — and more than that: not a part for the whole, but the part as a whole, and its wholeness wholly immanent in the fragment' (p. 370). To assign the 'immanence' of the whole to the fragment is suggestive of the place of the sculptural work whose whole becomes a part of the meaning which 'occurs in the process of experience itself' (Krauss, p. 30). The situation of a whole becoming a part, or of the work representing itself

---

[25] Deborah Silverman, *Art Nouveau in Fin-de-Siècle France* (Berkeley: University of California Press, 1992), p. 252.

[26] Alex Potts notes that Baudelaire 'tried to conjure up a vision of the potentially "divine role of sculpture" in the modern world [. . .] an urban *flâneur* encountering a monument and momentarily seeing it as a strange apparition floating in the sky above the mêlée of the city'. See *The Sculptural Imagination* (New Haven: Yale University Press, 2000), p. 64.

as a part, is a central aspect of the self-reflexivity that characterizes both Leighton's and Rodin's work. The work can never be seen as a totality if its very apprehension exists as one of its parts. As the viewer's perception is represented in *Athlete*, the work is always necessarily incomplete. Here, something on the order of Kurt Gödel's incompleteness theorem, which mourns metalanguage's entanglement with language, takes place: the viewer cannot achieve a metapicture of the work if her perception is *part of* the work.[27] Like the infinite 'views' that go unpictured in-between the spatially and temporally sequential photographs of his sculptures that Rodin commissioned (in a moment of daylight between two contiguous shots), the self-reflexive sculpture resists totality. The self-reflexive work acknowledges its own dependence on encounters by the viewer whose viewing can never fully contain an object that represents as one of its parts that very act of viewing. The meaning of the work can thus occur only '*in the process of experience*', never as its end. New Sculpture's cultivation of the body double thus elicits a realization of sculpture's virtuality that likens it to the ontology of film. As Stanley Cavell has described the incompleteness of the surrogacy offered by 'the camera's implication':

> One can feel that there is always a camera left out of the picture: the one working now. When my limitation to myself feels like a limitation of myself, it seems that I am leaving something unsaid; as it were the saying is left out.[28]

Watching oneself watching, as New Sculpture invites its viewer to do, poses the same ontological questions as cinema. But *Athlete*'s incorporation of the viewer's viewing posits the conditions of modern spectatorship as a *felix culpa*. In this sense, chronophotography, like *Athlete*'s python, can be read as the Edenic serpent, enticing sculpture into a happy fall from a unified, complete view of the work into the knowledge that the work as a whole is always fractured by the contingencies of the viewer's perception. Chronophotography confronts the presumed unity of sculpture as a spatial art with self-consciousness and scepticism. The unresolved and unresolvable question persists of what view remains unviewed, just as cinema asks what camera has been left out of the picture. The greater ontological stakes of chronophotography's interface with New Sculpture is this recognition of sculpture's dependence upon its viewer, its eternal incompleteness.

---

[27] Gödel derives this paradox from the irresolvable problem presented by the liar's paradox: 'This sentence is false.'
[28] Stanley Cavell, *The World Viewed: Reflections on the Ontology of Film* (Cambridge, MA: Harvard University Press, 1971), p. 126.