

## “John Smith and His Gargantuan Newt”

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### Eye of Newt

According to a spokesperson at Harkness Screens of Fredericksburg, Virginia, one of the largest manufacturers and installers of movie theater screens in the United States, the average American movie screen is approximately 40 feet across and 20 feet tall, for a total area of about 800 square feet.<sup>1</sup> The average diameter of the adult human eye is about 25 millimeters, or just less than one inch.<sup>2</sup> When the eye of an average sized human being (say, 66 inches tall) is photographed in an extreme close-up, so that its extremities just touch the frame edges, and is projected onto an average American movie screen, that eye will be approximately 488 times its actual size. If the possessor of that eye were magnified proportionately, he or she would be approximately 2680 feet tall—about 40 feet shorter than the Burj Khalifa skyscraper in Dubai, currently the tallest building in the world.

The average newt (say, the endangered Black-spotted newt, *Notophthalmus meridionalis*) is about 9 centimeters in length;<sup>3</sup> the average size of its spherical eye is approximately 4.3mm in diameter.<sup>4</sup> An extreme close-up of the eye of *Notophthalmus meridionalis*, projected to touch the edges of an average screen, would render that eye approximately 2835 times its actual

size. A newt with an eye of that size would be approximately 837 feet long—about five times the size of Godzilla, though surely milder in temperament.<sup>5</sup>

If newts had exceeded their evolutionary constraints and managed to invent cinema, not only would there be a preponderance of films concerning the regeneration of body parts and the secretion of tetrodotoxin, but some of the most fundamental concepts and devices of film representation would be rendered radically unfamiliar to us. Perhaps the most important of these differences is that of scale. Just as the nomenclature for shot scale in human-made films is imprecisely determined by the size of the human figure (itself quite variable), shot scale in newt-made films would be determined by the size of the newts themselves. Were a newt cinematographer to shoot an extreme long shot of the sweeping vista of the shore of a pond, that image would probably look to human eyes very much like a close-up of reeds and lily pads.



Figure 1: Was this image taken by a crouching human photographer, or by an amphibian photographer atop a crane?<sup>6</sup>

An extreme long shot taken by a human cinematographer—for instance, the extreme long shot from Nicholas Roeg’s *Walkabout* (1971) of two people walking in the Australian outback (Figure 2)—would probably blow the little amphibian minds of any newts in the audience. Never would they have even paused to contemplate a vista so enormous. In film, not only is scale not absolute, it is arbitrary.



Figure 2: An extreme long shot with the potential to boggle the mind of a newt. Just prior to this shot, Roeg zooms out so wide that the two human figures, who walk atop the crest of the ridge closest to the foreground, are now unspottable.

The comparison made herein between human scale and newt scale, however, is *not* as arbitrary as it may seem. That very topic is one of the chief questions of John Smith’s exceedingly clever one-minute, one-shot film *gargantuan* (1992), made under the auspices of BBC2’s “The Late Show” and the Arts Council of Britain. The film is simple: after its orange-on-black title card (wittily lowercased), *gargantuan* commences with a close-up of the head and torso of a newt (Figure 3), as we hear a clock ticking and Smith speaking from offscreen; he recites a list of adjectives: “Gargantuan amphibian ... enormous amphibian ... huge amphibian.” At the word “huge,” the camera begins to zoom out, and so, in a sense, do the adjectives: a formerly gargantuan amphibian is soon described, in Smith’s singsong voice, as strapping, average,

modest, scanty, and even weeny (Figures 4 and 5).<sup>7</sup> Each adjective corresponds to the relative percentage of the screen occupied by the newt as the camera continues to zoom out: at "gargantuan," the newt occupies perhaps forty percent of the screen; at "weeny," about four percent. About forty seconds into the film (when the newt is "typical"), the camera has zoomed out sufficiently far for us to realize that the subject of the film is resting on a bed, on which Smith also rests: his head and shoulders come into view, and we grasp that he is speaking the words, not as a voiceover, but diegetically. Smith continues, "Minuscule amphibian ... minute." At that instant, the alarm clock rings and Smith reaches over to silence it. As he does so, the filmed image is replaced by a one-word, orange-on-black title card that reads "minute." "I love my newt," he says as the film ends, thus accomplishing a rare triple pun: "my newt" is a homophone of "minute," meaning "small"; as well, "minute" is a homonym for the word that describes the exact duration of the film, of which the ticking of the clock constantly reminds us. It is a formidable pun—I would even nominate it as one of the very best in the English language. And it hinges entirely on the notion of *scale*.



Figure 3: A gargantuan newt



Figure 4: An average newt



Figure 5: A weeny newt, with human filmmaker friend

We human viewers take for granted important qualities of the filmed image such as scale. We understand that a simple zoom lens renders Smith's beloved newt first gargantuan and ultimately merely minute; we know that the newt is not *really* getting smaller, but Smith's use of less and less monumental adjectives troubles this notion: the size of the *image* of the newt is most definitely getting smaller, and therein lie the complications.

Without an understanding of the differences between life scale and film scale, *gargantuan's* terrific triple pun would be nothing more than an acknowledgment that "minute" can be pronounced two different ways. As it is, the students in my Introduction to Film Studies course, to whom I show this charming film as a treat after a week of viewing and discussing more sober non-narrative films, not only grasp *gargantuan* in all its clever subtlety, but unfailingly adore it. (One student even declared it her "favorite film ever.") The cleverness of the pun is nothing without the build-up that

precedes it: *gargantuan's* verbal, scalar, and comic structures are all neatly wrapped up only in its last few seconds. Before that point, it's primarily a meditation on the ability of the zoom lens to alter our perception.

### Who's Zoomin' Who?

In cinema's first decade, magnification in and of itself was the *raison d'être* of many films. A fine and fairly well-known example is *Grandma's Reading Glass* (dir. George Albert Smith, 1900), in which a boy and his ostensible grandmother use a large magnifying glass to investigate such household objects as the family cat, the workings of a pocketwatch, and the leering right eye of Grandma herself (Figure 6).<sup>8</sup> Since the film antedates the advent of the zoom lens, the closer inspections of the objects are accomplished with simple cuts to shots taken from closer camera positions. *Grandma's Reading Glass* exists solely to display these close-up "views": in the absence of story, action, or well-defined characters, the close-ups themselves are the main attractions of the film.





Figure 6: The magnified cat in *Grandma's Reading Glass* (1900)

That such “views” were novel was a function of the penchant in early cinema for “life-sizing”: the practice of composing, shooting, and projecting filmed images so that the subjects’ *screen* sizes were as close as possible to their *actual* sizes. The cat in Figure 6, when projected in a cinema in 1900, would have been as big as a lion; that very manipulation of scale was the chief value of the film. Charles Musser cites a favorable 1895 review in the *New York World* of an eidoloscope program:<sup>9</sup> “Life size presentations they are and will be, and you won’t have to squint into a little hole to see them. You’ll sit comfortably and see [the filmed actions] just as if you were on the spot during the actual events. And you won’t see marionettes. You’ll see people and things as they are.”<sup>10</sup>

It is difficult to determine precisely *why* life-sizing was deemed so praiseworthy in film—it is not as if all preëxisting graphic arts unfailingly

abided by such a precept. Perhaps the preference for life-sizing (which was not to last long: Eileen Bowser notes that *clarity*, of both action and narrative, began to assume greater importance than life-sizing as early as 1907<sup>11</sup>) is related to the fact that, in 1900, most motion pictures were "actualities," and that life-sizing enhanced the images' documentary value. Indeed, *Grandma's Reading Glass* is partly a scientific investigation of everyday objects. Perhaps life-sizing was merely a kind of phase that audiences and critics had to pass through in order to realize the greater artistic potential of film. In any case, *Grandma's Reading Glass*, and the many other early films that rely on magnification, were some of the cinema's first explorations into the use of scale to amuse and fascinate audiences, and they provide a template, of sorts, for *gargantuan*.

In addition to being a sub-two-minute film directed by a British man named Smith, *gargantuan* has something else in common with *Grandma's Reading Glass*: its magnification—or, in this case, its *demagnification*—is its backbone. Remove the shifting scale and the film becomes meaningless. But John Smith's optical play is ironic. Even as his film refers back to a time at which even cinema's most basic visual conventions had not yet been codified, it subverts and questions the process of viewing, and of the cinematic depiction of scale. If *Grandma's Reading Glass* merely asks us to marvel at the fact that a camera can show us common objects at previously unseen sizes, *gargantuan* asks more complex questions: Why do we read as "bigger" an object that is merely optically magnified, when we know that it has an absolute size? What are the ways in which size and scale affect the meanings we assign to the filmed images that we see? What are the psychological, narrative, expressive, and emotional effects of being extremely "close" to an object in unfamiliar ways?

The hypothetical enormous human eye mentioned above—or, to put a finer point on it, the famous extreme close-up of Janet Leigh's eye in *Psycho* (dir. Alfred Hitchcock, 1960; Figure 7)—is a potentially shocking image: partly for being emblematic of a vicious murder, and partly for its unfamiliar scale, even though we are well aware that it has been accomplished by the "trickery" of a simple zoom lens. We know it's just an eye, but it *feels* different partly because its scale has been so radically altered. In its straightforward, delightful, punning way, *gargantuan* poses the above questions to the viewer, though it coyly provides no particular answers to them. That newt is not truly enormous; it's just "enormous."

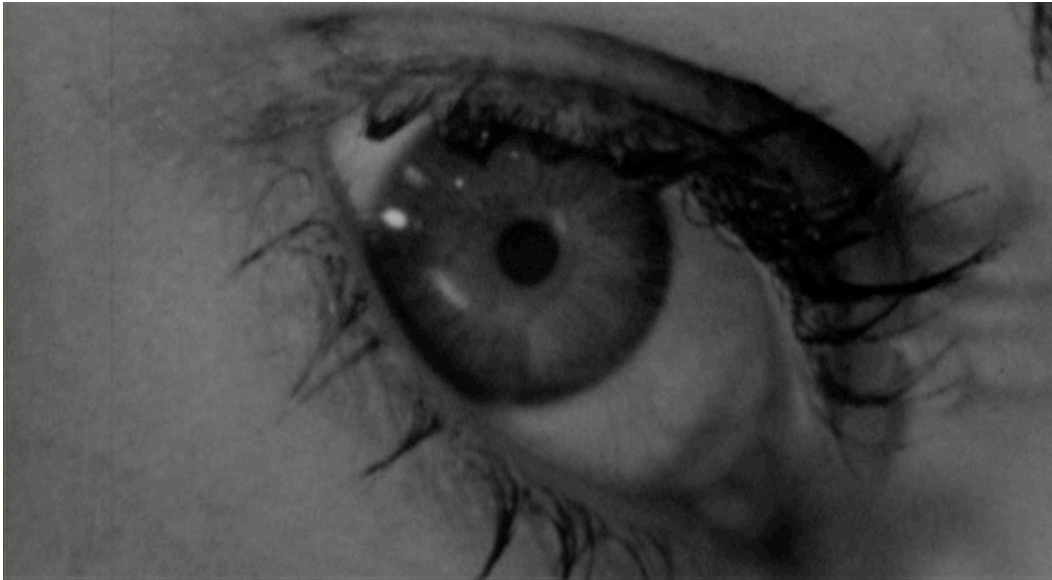


Figure 7: The cinema's most famous extreme close-up of an eye: *Psycho*.

### Newtonian Opticks

The key to understanding *gargantuan* is knowing the difference between the two scalar systems it depicts: actual size and apparent size (though even these ideas are destabilized, as discussed below). Smith guides us to appreciate this distinction by including himself in the frame (rather than simply reading the text as a voiceover); this choice encourages us to consider Smith's own optical perspective on the newt, which varies in neither scale nor position. From Smith's position on the bed, the newt is fixed in size; ironically, the man who comments on the newt's apparent diminution cannot witness that diminution. Smith's list of adjectives refers to *our* viewing of the newt, not his own, and thereby calls attention to the ways that scale is a function of the visual disparities that necessarily separate any two (or more) viewers. Both *Grandma's Reading Glass* and *gargantuan* foreground the act of viewing, but *gargantuan* goes a crucial step further by encouraging us to appreciate the ironies and inconsistencies of viewing an object from different literal and figurative perspectives.

By extension, Smith makes the rarely made point that there is no absolute scale in cinema—an incontrovertible fact. Screen and monitor sizes vary; spectators may sit in the first row, last row, or balcony; projectionists or video masterers may make errors of registration or magnification. If I see the latest

Hollywood blockbuster in IMAX and you see it "flat," do we truly see the same movie? Smith's implicit argument is that, no, we do not, but that is the nature of the cinematic beast—even if we saw the same film on two identically sized screens, we would *still* not see the same movie. Individual responses to a film can and will vary in ways that are determined in part by scale: even if the close-up of an eye occupies the same *percentage* of an IMAX screen as it does of a standard screen, the effect of that shot will vary from viewer to viewer for reasons having to do in part with the raw *size* of the object. By the same token, though, one filmmaker may frame Godzilla in an extreme long shot while another frames a newt in extreme close-up, with the result that the two creatures occupy the same relative percentage of screen real estate. Are they of equal sizes? Yes and no. Part of the mission of *gargantuan* is to encourage us to think more carefully about the process of viewing, especially inasmuch as it is affected by the notion of scale.

To download *gargantuan* and watch it on a good-sized computer monitor actually intensifies the ironies that Smith identifies.<sup>12</sup> Enlarge the media player's window until it is as big as possible, and play the movie. The first image of the newt, though larger in absolute terms than all earthly newts, will not be *truly* gargantuan, at least not in the Rabelaisian sense of that word. Considered in comparison with the scale in which it is presented in subsequent framings of the film, the newt is only *relatively* gargantuan. Indeed, this is part of the joke: not only is the scale of the newt determined by the rotation of the barrel of the zoom lens, but by the relative size of the screen or monitor on which it is shown. When I hook up my computer to a video projector, so that I may project *gargantuan* on my classroom's screen, the newt does approach Rabelaisian gargantuanness ... but, then, not really: all that has occurred is a secondary level of magnification, in which the pixels that comprise the image are enlarged by the optics of the projector. The only absolute is the size of the newt relative to the size of the frame, a figure that may be expressed as a percentage, and that is subject to great variability.

The shifting of the scales of the newt, in fact, occurs largely in our minds. Ultimately, the argument that Smith makes in *gargantuan* is that all viewers are burdened with a great many vital and fundamental—albeit unacknowledged—assumptions about the ways in which scale affects our perception of, understanding of, and responses to any and every filmed image. Remarkably, he makes this sophisticated point in a modest, clever, one-shot, (one-) minute film that consists of no more than a zoom-out of an amphibian.

Thus does the message of Smith's film echo its form: the minutest of things so often inspire the most gargantuan ideas.

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## Notes

- 1 Personal telephone correspondence with the author, 13 July 2011. (The spokesperson preferred to remain anonymous.)
- 2 The *Physics Factbook* page "Diameter of a Human Eye" surveys five medical guides to find that they concur that 24-25mm is the average size of the human eye. (Glenn Elert, ed., "Diameter of a Human Eye," *The Physics Factbook*, <<http://hypertextbook.com/facts/2002/AniciaNdabahaliye1.shtml>>, last visited 14 July 2011.)
- 3 See the entry on *Notophthalmus meridionalis* at the Encyclopedia of Life at <<http://www.eol.org/pages/330870>> (last visited 13 July 2011).
- 4 It is not a straightforward matter for a non-herpetologist to arrive at even a rough estimate of the size of a newt's eye. One useful source is Kerim Çiçek, Dinçer Ayaz, and Yusuf Bayrakci, "Morphology of the Northern Banded Newt, *Ommatotriton ophryticusi* (Berthold, 1846) (Caudata: Salamandridae) in Uludag (Bursa, Turkey)," *Herpetology Notes*, Vol. 4, pp. 161-165 (2011; published online at <[http://www.herpetologynotes.seh-herpetology.org/Volume4\\_PDFs/Cicek\\_Herpetology\\_Notes\\_Volume4\\_page\\_s161-165.pdf](http://www.herpetologynotes.seh-herpetology.org/Volume4_PDFs/Cicek_Herpetology_Notes_Volume4_page_s161-165.pdf)> on 6 May 2011; last visited 15 January 2012). The beautiful, ridgebacked Turkish newt described in that article is roughly the same size as [Notophthalmus meridionalis](#), and its eye is recorded by the authors as ranging between 2.9 and 5.7mm in diameter; the average of those two figures is 4.3mm.
- 5 In the original *Gojira* (dir. Ishiro Honda, 1954), the height of the titular leviathan is estimated by one character to be 50 meters, or about 165 feet.

Sequels and revisions have played fast and loose with Godzilla's size, some making him out to be nearly twice his original height. A delightful – and entirely on-theme – article about the changing scale of Godzilla from the perspective of a model-maker is Robert Biondi's "So Just How Big Is Godzilla?: A Model Builder's Guide to Godzilla's Size Changes." (Originally published in *The Kaiju Review* #4, Winter 1993; available online, in revised version, at <<http://www.historyvortex.org/HowBigGodzilla.html>> [last visited 8 July 2011].)

- 6 This public-domain image was photographed by Peter Griffin, and is available online at <<http://www.publicdomainpictures.net/view-image.php?image=7533&picture=water-drops-on-lily-pad&large=1>> (last visited 17 July 2011).
- 7 The full, ordered list of Smith's amphibian adjectives is *gargantuan, enormous, huge, big, strapping, ample, medium, average, regular, typical, little, modest, scanty, petite, tiny, diminutive, weeny, minuscule, and minute*.
- 8 *Grandma's Reading Glass* is available on YouTube at <<http://www.youtube.com/watch?v=6ho05y9IMr4>> (last visited 13 July 2011). Charles Musser notes that the unattributed 1902 Biograph picture *Grandpa's Reading Glass*, a "fourteen-shot film [that] intercuts scenes of a little girl looking through a magnifying glass with views of the objects at which she is looking," is a "reworking" of *Grandma's Reading Glass*. (Charles Musser, *The Emergence of Cinema: The American Screen to 1907* [Berkeley: University of California Press, 1990], p. 312.)
- 9 The eidoloscope was one of the many individually patented motion-picture devices/systems to vie for industrial dominance in cinema's first decade.
- 10 *New York World*, 28 May 1895, p. 30, cited in Musser, p. 96.
- 11 Eileen Bowser, *The Transformation of Cinema, 1907-1915* (Berkeley: University of California Press, 1990), p. 94.
- 12 *gargantuan* resides legally online in two places: <[http://www.luxonline.org.uk/artists/john\\_smith/gargantuan.html](http://www.luxonline.org.uk/artists/john_smith/gargantuan.html)> and <<http://www.johnsmithfilms.com/texts/sf7.html>>, both last visited 14 July 2011.

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