# From the Portrait to the Close-Up: Gender and Technology in Still Photography and Hollywood Cinematography

*by Patrick Keating*

*Abstract: During the second two decades of the twentieth century, Hollywood cinematographers drew on the conventions of portrait photography to develop their own figure-lighting strategies. Although the two practices relied on different kinds of technology, cinematographers retained the larger strategy of structuring their stylistic techniques according to a logic of sexual difference.*

During the late teens and early twenties, Hollywood began employing cinematographers with experience in still photography, such as Charles Rosher, Arthur Edeson, Hendrik Sartov, Tony Gaudio, John Leezer, and Karl Struss. At the same time, three-point lighting became Hollywood's standard approach to figure lighting. It seems natural to assume that these two phenomena are causally related: presumably, Hollywood cinematographers imported figure-lighting strategies from the established conventions of portrait photography.

Although there is indeed some truth to this assumption, it needs to be complicated in several ways. Cinematographers may have borrowed some technology from still photography, but Hollywood quickly outpaced the portrait business in terms of investment in artificial lighting equipment, and this led to subtle differences in technique. Furthermore, cinematographers were required to modify figure-lighting techniques to achieve other ends, such as clarity and expressivity. In short, the practices of still photography were often transformed in the transition to motion pictures. As a result, a Hollywood close-up of the late teens will often look significantly different than a typical photographic portrait of the same period.[1]

This does not mean that the influence of portraiture should be overlooked. Rather, it may mean that a more significant influence is located at a deeper level. In this article, I will argue that the most significant influence can be located in Hollywood's adoption of portraiture's preexisting practices of systematically differentiating images of men and women. Although Hollywood transformed the conventions of portraiture, it retained the larger strategy of structuring stylistic differences according to a logic of sexual difference. This logic—despite material and technological changes in the medium—guides the practice of Hollywood cinematography to this day.

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**Part I: The Practice of Portraiture.** Before examining how the discourse of gender intersects with the practice of portraiture, let us first sketch the basic technology and techniques of that practice. Arthur Hammond's 1917 article in *American Photography*, entitled "Home Portraiture," offers a good initial account. According to Hammond, the amateur and the professional need only two things to light a portrait: a window and a reflector. The article includes several diagrams showing the right way and the wrong way to use these two tools. In the diagram illustrating the strategy for "ordinary lighting," the window is placed at a front-side position. According to Hammond, the result is the following: "One side of the face is fully lighted, and on the other side, the side away from the window, there is a triangle of light on the cheek, just below the eye."[2] By carefully adjusting the window shades, the photographer can modify the lighting and control the highlights. Hammond has remarkably precise instructions about the placement of the highlights: "With good lighting there should be a highlight on the forehead, just above the eye on the lighted side of the face, and also on the bridge of the nose, on the tip of the nose, on the lips and chin, and also a bright spot in each eye."[3] In spite of these precise stipulations, Hammond does allow some room for variation. For instance, a bay window might allow the photographer to light a portrait without using a reflector. Alternatively, a photographer could try out a technique called "Rembrandt lighting." In spite of the fancy name, the technique employs the same basic ordinary lighting setup. Instead of changing the lighting, the photographer simply moves the camera to a position facing the light source. As long as the glare is controlled, the result is a light outlining the sitter's profile, similar to a Hollywood backlight.

Rembrandt lighting had been around in photography for decades. For instance, in his 1891 book *The Studio, and What to Do in It*, Henry Peach Robinson writes, "The Rembrandt portrait is usually a head, more or less in profile, lighted from behind and the side, and as unlike anything Rembrandt ever painted as possible. I have always objected to this title for these shadow pictures, but the name sticks, and I accept it."[4] Robinson is right to point out that Rembrandt lighting is a potentially misleading term. Although Rembrandt did occasionally light from the side-back position, he favored a soft light from a side-front-top position. Photographers and their peers in cinematography, struggling as they were to justify their work as art, used the "Rembrandt" tag to render artful their manipulation of light.

Not all photographers at the time were relying on window lighting for their portraits. Some professional photographers had invested in artificial lights. However, this technical change usually did not involve a shift in aesthetic strategies. Photographers liked the reliability of artificial lights, but they preferred the "natural" look of daylight. In the 1918 edition of *The American Annual of Photography*, studio photographer T. W. Kilmer describes the professional's dilemma:

> For many years man has been striving to produce a light that will take the place of daylight as an illuminant in photographic portraiture. He has had a hard job. Daylight is certainly in a class all by itself when it comes to using it for this purpose. Its softness, its subtleness, its actinic quality, its broadness, its various moods, all made it the ideal illuminant. Although ideal in character, it is nevertheless difficult to master, for one

moment it lights your subject with a full blaze of bright light, only to be followed by a period of soft, dull light caused by a cloud scudding across the sun.[5]

Kilmer goes on to suggest a simple solution: use artificial lights to duplicate the soft look of daylight. This desire for softness causes Kilmer to reject carbon arc lights, which give off light from a point source. Instead, Kilmer recommends using Cooper-Hewitt lamps, which illuminate from a larger area. Kilmer also recommends supplementing this light with a few nitrogen lamps. As for aesthetic matters, Kilmer simply advises the photographer to set up the lights so that they reproduce the established style: "Turn on your Cooper-Hewitts, and then add 1, 2, 3, 4 or more 100 watt nitrogen lamps to your Cooper-Hewitt illumination until your subject looks as though he was lighted by daylight."[6] In short, Kilmer does not recommend using these lights to create new effects. Satisfied with the look of daylight, he recommends using artificial lights to duplicate that look efficiently.

Some photographers figured out ways to overcome the hardness of the arc light. In a 1913 article in *The British Journal of Photography*, George F. Greenfield describes lighting with an enclosed arc light. Like Kilmer, Greenfield is wary of the light's hardness, but he solves the problem by using a curved reflector to bounce light towards the subject. Like Kilmer, Greenfield is simply using artificial lights to recreate the look of daylight. The soft key comes from a front-side position, while a reflector provides some fill for the shadow side.[7] Arc lights could also be used to create Rembrandt lighting, as described in a 1916 article by George R. Henderson. Again, the photographer avoids hard light, preferring to soften the light by bouncing it off an umbrella.[8]

In short, whether British or American, amateur or professional, the typical portrait photographer of the time favored the soft look of daylight, so much so that even artificially lit portraits were illuminated in this fashion. At first glance, the aesthetic justification for this approach seems simple enough: this lighting provides the modeling necessary to create a plausible likeness of the sitter. Arthur Hammond writes:

> Our vision is stereoscopic because the two images seen by the two eyes are merged and coalesced into one image, just as the two pictures in a stereoscopic photograph are seen as one. This gives us a sense of roundness and relief which, in a photograph made with only one lens we must suggest by means of varying intensities of light, halftones and shadows. [. . .] This is why lighting in a portrait is so important. The direction of the lighting determines the positions of the highlights, halftones and shadows on the face and these indicate the shape of the features and consequently the likeness to the individual portrayed.[9]

According to Hammond, the photographer must compensate for the two-dimensional nature of the medium by using light to create a sense of depth. The photographer creates a likeness by creating a sense of the shape of the sitter's face.

Many of Hammond's technical recommendations contribute to the goal of creating a sense of depth. For instance, Hammond insists, "To obtain the maximum relief and roundness, the light should come from one source only."[10] Hammond also advises stretching sheets of muslin over the window to soften the light, if necessary.[11]

Because a soft light creates multiple degrees of gradation between the light side and the shadow side, it can enhance the sense of depth.

Hammond's priorities are worth noting: soft window light is not favored because it is natural; rather, it provides the best modeling. Notice that Hammond does not suggest that the camera's automatic use of perspective will supply the required sense of depth. Depth is not captured by the mechanical camera; it is created by the individual photographer, through the skillful manipulation of light and shade. Likeness is created, not captured. This rhetoric emphasizes the creative contributions of the individual photographer.

Photographers who were concerned with justifying photography's status as an art would take this argument about the photographer's individual contributions even farther. For instance, Antony Guest, in his 1907 book *Art and the Camera*, writes:

> What is likeness? It is not altogether an objective matter that makes its appeal by a set arrangement of form and colour, so that what one sees every one else sees, and as to which there is no room left for diversity of opinion. It is at least to an equal extent subjective, depending on the point of view of the beholder, his mental attitude, and the degree of sympathy that he feels for the person portrayed. [. . .]
>
> Hence it seems that some other aim needs to be substituted for that of mere similitude, or, at least it should be supplemented by something more trustworthy; and that which naturally suggests itself is character.[12]

Guest opposes the weak notion of mere similitude to the stronger goal of capturing character. According to this theory, although appearances may change from moment to moment, each subject has a more of less consistent character which can be captured by the artistic photographer.

Again, the work of Rembrandt provides the artistically inclined portrait photographer with a model. If Rembrandt were merely a virtuoso with light and shade, he would be a minor figure. Traditionally, what makes Rembrandt a great master is his legendary ability to peer into the souls of his subjects. His revelation of the "character" of his subjects is invoked as a way to avoid troubling questions about what constitutes a "likeness."

The concept of "character" is itself far from simple. The photographers' discourse of character is almost invariably complicated by a discourse of gender, as many photographers start with the assumption that men and women have different degrees of character. This ideology of difference impacts their formal choices in concrete and specific ways. In his 1919 book *The Fine Art of Photography*, pictorialist and portraitist Paul L. Anderson offers a detailed discussion of the way gender and character impact photographic technique. Anderson's discussion is particularly remarkable for his open acknowledgement that the ideology of difference invoked by photographers is a cultural construction:

> Men are most likely to have strongly marked characters, since their mode of life tends to develop the mental processes and to encourage decision, whereas our present unfortunate ideals of feminine beauty incline toward mere regularity of outline and delicacy of complexion. One finds, nevertheless, a good many women whose features express mental

activity and firmness of will, the higher beauties of the mind rather than the mental indolence which is imperative in the cultivation of what is popularly termed beauty.[13]

According to this theory, character is more or less visible on a person's face. A person with a strongly marked character will have more lines on the face, a result of mental exertion; conversely, a person with less clearly marked character will have a more delicate complexion. Furthermore, character (both as an internal state and as its external manifestation) supposedly tends to vary with respect to men and women. To his credit, Anderson refuses to naturalize this distinction, arguing that "the present variation seems to be rather the result of education and training than of anything else." Nevertheless, he resigns himself to the distinction, noting that "for the present the facts are as stated."[14] Ultimately committed to the "facts as they are," Anderson uses his generalizations about character to support various proposals about formal principles. His recommendations are different for men and women, though even here he makes an admirable effort to interrogate and complicate the assumptions of his profession. He writes:

> We are accustomed to associate brightness and vivacity with children, and these qualities are suggested by a high-keyed print, transparent and full of light [. . .]. To a less extent the same is true of portraits of women, though here the scale may be extended, more contrast being used, even (in the case of women of strong character) approaching the full-scale, powerful effects which are valuable in portraying men. Evidently, men less accustomed to commanding positions, that is, artists, writers, students and the like, approach more nearly to the feminine gentleness of character, and they, since their work is more in the realm of the imagination, are generally to be rendered with less contrast and vigor than those who have charge of large affairs.[15]

Anderson offers specific recommendations about the formal features of tonality and contrast. Specifically, a portrait of a man, particularly one in a commanding position, should have strong contrasts of light and dark. Although some portraits of women can approach this range, the general rule is to employ a brighter overall tonality with images of women. He offers two of his own pictures as an example (see figures 1 and 2). The portrait of the man has strong contrasts of light and dark, with darkness providing the dominant tonality. The portrait of the woman has much less contrast, and brightness is the dominant tone.

Anderson does not explain why the control of contrast and tonality serves to differentiate character. However, it seems likely that the technique works in two ways: emphasis and expression. First, emphasis: according to Anderson, people with strong characters have stronger lines in their faces. "Contrasty" lighting and printing would serve to make these lines more visible, while high-key lighting would emphasize the smoothness of a sitter's face. Applying this logic, to emphasize a sitter's "decisive" character, a photographer might use "contrasty" chiaroscuro to bring out the lines on a person's face. To emphasize a sitter's "indolent" cultivation of beauty, a photographer might use less contrast to emphasize the smoothness of a person's complexion.

Before considering expression, it should be noted that contrast is not the only way to emphasize lines of character. For instance, Arthur Hammond recommends varying the angle and quality of the light: "The lighting should always be suited to the

Figure 1: Deep shadows and strong contrasts create a mood of seriousness in Paul L. Anderson's "Portrait of Dr. Edward A. Reiley" (1910).

subject, a strong shadow lighting might be appropriate for a man, but a softer, flatter lighting would usually be better for a young woman or a child."[16] Hammond does not share Anderson's willingness to interrogate cultural assumptions about gender and character, and he does not explain the justification for his recommendations; however, it seems likely that this is another case of differentiation through emphasis. A soft, flat (i.e., frontal) light works to eliminate the wrinkles that may be more apparent with side lighting. It would be counterproductive to use this technique on a man, since emphasizing facial lines is a way of emphasizing character.

These techniques of emphasis can also differentiate character in another way: through expression. According to Anderson, a high-keyed print suggests the qualities of "brightness" and "vivacity." The formal elements have expressive properties, and these properties can be used strategically to express the sitter's personal qualities. In a chapter entitled "Appropriate Treatment," Antony Guest makes this theory of expression explicit:

> It is often overlooked that additional expressiveness is to be obtained through the decorative influence if applied with discrimination. Pictures of people are sometimes composed as if the beauty of lines and masses were a thing apart, a sort of gratuitous adornment in no way relating to the personality portrayed. To instance a ridiculous extreme, we may suppose a portrait of Lord Kitchener treated with delicacy, while that, say, of a pretty actress is composed with severity of line and an impressive chiaroscuro.[17]

Guest's point is that the reverse treatment would be more appropriate. Although Guest does not make his assumptions explicit, it is no surprise that his recommendations

Figure 2: Anderson uses bright tonalities and gentle gradations for a softer look in his "Portrait of Mrs. George B. Hollister" (1917).

follow the basic strategy of differentiation outlined by Anderson. The commanding male figure should be represented with "severe" lines and "impressive" chiaroscuro, while the pretty actress should be treated with more "delicacy." Extending this expressive analysis to Hammond's recommendations, we find that he prefers "strong" lighting for men, and "soft" lighting for women.

In short, a discourse of sexual difference intersects with the photographers' discourse of character. This is not merely an intersection in the realm of discourse. The intersection also yields practical results: a set of specific procedures for varying their techniques, depending on whether the subject is a man or a woman. Here is a general summary of these techniques:

A) Direction of light: Frontal lighting smooths wrinkles, while side- and top lightings emphasize them. The former is preferred for women, while the latter is preferred for men.

B) Quality of the light: Diffusing or bouncing the light softens the edges of the shadows. Cooper-Hewitts also produce soft-edged shadows. Undiffused arc lights produce hard, sharp shadows. As we have seen, some photographers are opposed to the use of hard lights, regardless of the subject. However, in general, softness is preferred for images of women for two reasons: the expressive associations of the term "softness," and the tendency for soft shadows to de-emphasize facial lines.

C) Contrast (lighting): Even a soft frontal light will cast some shadows, but weakening the contrast by adding a strong fill light will make those shadows

even less salient, emphasizing the smoothness of the sitter's features. Decreasing or eliminating the fill light will emphasize shadows (and therefore emphasize character), particularly when combined with hard side-lighting. Again, emphasis is reinforced by expression. Pictures of women feature "gentle" gradations in tone, while pictures of men feature "strong" shadows.

D) Overall tonality: Overexposing a woman's face is one way to smooth out lines. Also, there is an expressive tendency to prefer darker tones for images of men, to create a mood of "seriousness."

E) Lens diffusion: Using soft lenses or placing gauze over a lens softens the image, with predictable results to expression and emphasis.

F) Lens focus: Even when not working with a specially designed "soft" lens, a photographer could choose to throw a woman's face out of focus, thereby smoothing out lines. Used in another way, the technique can also add character to a picture of a man: by softening other areas of the frame, a photographer could draw attention to a sharply focused, well-lined face. This approach would achieve appropriate emphasis, though perhaps at a cost of including some inappropriately expressive features.

G) Retouching. This is another way a photographer could soften all or part of a picture and smooth out the wrinkles in someone's face. Indeed, this approach was probably more common among photographers than the option of altering focus.

H) Contrast (Developing and Printing): Yet another way to influence the contrast of the image is to use different developing or printing techniques. For instance, overexposing and underdeveloping the negative will result in a low-contrast print, emphasizing soft gradations over strong contrasts. Meanwhile, underexposing and overdeveloping the negative will result in stronger contrasts. Developing and printing techniques could also be used to adjust the overall tonality of an image.

During the second decade of the twentieth century, Arnold Genthe made several portraits for *Vanity Fair*. Regardless of the subject, most of Genthe's portaits are in the softened style that was a trademark of pictorialism. Genthe's aesthetically motivated decision to use lens diffusion in all images prevents him from using lens diffusion as a selective tool for the emphasis and expression of character. Still, Genthe manages to introduce gendered distinctions with other techniques, such as the angle of the light. A portrait of Ignace Paderewski uses a top-side light to emphasize the complex shape of the sitter's face. The forehead has several planes, the nose stands out from the cheek, and the cheek itself becomes an intersection of multiple planes. A portrait of Lucile Cavanaugh uses a similar light, but it has been adjusted to a more frontal position, which allows the area from the forehead to the cheek to the chin to be rendered as one smooth plane.

Victor Georg, another *Vanity Fair* regular, opted for a different strategy. Like Genthe, Georg tends to soften all his portraits, though he does not take it to Genthe's extremes. Georg is less likely to move his keylight to suggest difference, however. Instead, Georg varies his contrast and tonality. In a portrait of George Arliss, Georg uses a dark tonality to express Arliss's "serious" character, and he uses contrast to

give emphasis to the external signs of that character—the lines on Arliss's face. In comparison, Georg's handling of Irene Castle does not reveal a depth of character. Against a plain white background, her portrait flattens into a decorative pattern of elegant lines and curves.

Not all of the photographs of Genthe and Georg operate at these extremes. Genthe does not always use top light for men, and Georg does not always use light backgrounds for women. The application of gender-specific conventions was never as rigorous in practice as a list such as the one above might imply. Furthermore, gender discourse was not always a matter of a simple binary opposition. As we have seen, Anderson regards differences in character as culturally variable, and he believes that a photographer can choose to emphasize the "strong character" of a female sitter, or the "delicacy" of a male sitter. Nevertheless, in both theory and practice, distinct strategies for men and women seemed to operate as default norms, providing a background against which departures were measured.

There was at least one photographer, however, who seemed to depart from these norms in a more radical way: Baron Adolph De Meyer, the European aesthete who was almost certainly not a real baron. Significantly, De Meyer rejected many of the technical norms of professional portraiture. Whereas most professional portraitists favored the natural look of daylight, De Meyer developed a flamboyantly artificial lighting style, relying heavily on the creative use of backlight. Indeed, De Meyer's artificial style bears technical similarities to the three-point style being developed in Hollywood. For this reason, it requires a closer look.

One crucial difference between De Meyer and his colleagues is that De Meyer's photography is much more abstract. Figure 3 is a portrait of John Barrymore by De Meyer. A backlight outlines the famous profile, but the space between the profile and the ear looks almost flat. Even the profile's outline is not nearly as clean as it could be. Had he wanted to represent the profile faithfully, De Meyer could have outlined it by placing the backlight at eye level. Instead, De Meyer chose to employ the low backlight. The result is an unpredictable composition, as some of the profile's features pop out, while other features blend into the background.

De Meyer uses a similar technique in his portrait of the female star Yorska: the same low backlight, the same flattening of the face. In its highly abstract quality, the portrait is similar to some other *Vanity Fair* portraits, such as Georg's portrait of Irene Castle. The difference is that De Meyer turns all of his subjects, both men and women, into abstract patterns.

Rather than imitate the natural look of daylight, De Meyer relies almost exclusively on artificial lights, often in a three-point setup. Hollywood was also using the three-point setup more and more often, though it is not clear whether De Meyer influenced Hollywood, Hollywood influenced De Meyer, or both. The more important point is that this similarity of technique does not imply a similarity of approach. With its commitment to narrative, Hollywood does not follow De Meyer's practice of turning every portrait into an abstract picture. Rather, Hollywood uses lighting to capture varying degrees of character, be it the character of fictional individuals, or the character of the stars playing the roles. This commitment to character led Hollywood to adopt a set of norms that were, if not identical

Figure 3: Adolph De Meyer's portrait of John Barrymore (1920) features an unusual backlight from below, sacrificing clear modeling for glamorous spectacle.

to those of the photographers, structurally analogous to them, emphasizing and expressing different degrees of character for men and women.

### Part II: From the Portrait to the Close-Up: Transitions and Transformations.

Individual techniques were transformed in the transition from still photography to cinematography, in spite of the fact that many of the cinematographers who helped develop the Hollywood style had experience in portraiture. One reason is technological: the motion picture industry moved much more quickly to artificial lights than the still photography industry did. A case in point is a 1917 article in the photography publication *Studio Light* that describes the Campbell Studio (located on New York's Fifth Avenue). The glamorous location is a sign that the studio was at the top of the profession, but the article notes that the studio's primary light source is a window, and most of the accompanying portraits are in the window-and-reflector tradition.[18] Even Edward Steichen, one of the most successful photographers in the world, claims in his autobiography that he did not begin to use artificial lights regularly until 1923, when he took a job at *Vanity Fair*.[19] By contrast, in 1917, more and more film studios were painting over their glass studios and relying exclusively on artificial lights.[20]

   Photographers who used artificial lights did so for different technical reasons than their Hollywood counterparts. With longer exposure times, photographers did not need as much light. An exposure time of one or two seconds was not unusual for

a portrait photographer. By contrast, a cinematographer running his camera at 16 frames per second worked with an exposure time of 1/32 second (assuming a 180-degree shutter). Because of this difference in exposure time, the cinematographer needed more—and stronger—instruments than did his peers in the photographic profession. This may also explain why cinematographers did not follow Greenfield's advice and bounce their arc lights off reflectors to create more softness: too much light is lost in the process. Although cinematographers did use lamp diffusion, their key lights were still much harder than the key lights of still photographers. If we are to find links between figure lighting and portraiture, they may not exist primarily at the technical level. Rather, they may be found in the gradual adoption of the gender-based logic supporting portraiture's techniques.

For explanatory purposes, it may be useful to think of this period of adoption as divided into three phases. During the mid-teens, many cinematographers use artificial lights to supplement a base of lighting provided by natural daylight. The artificial lights emphasize details, without overpowering the daylight's softly graded overall illumination. In general, cinematographers do not yet have a wide enough range of options to establish consistent norms of differentiation. In order to signify difference of any kind (day/night, male/female, etc.), it is necessary to have a range of options. In the middle part of this decade, the still photographer simply had more options than the narrative filmmaker. Some of those options were technologically impossible for the cinematographer (e.g., retouching); some options were not yet available (e.g., soft lenses); and some options were available, but used for other tasks (e.g., contrast and tonality might be used to mark time of day).

By the end of the decade, film lighting had entered another phase. With more options to choose from, cinematographers could explore various ways of differentiating their techniques for photographing men and women. Cinematographers would never have the option of retouching, but various softening techniques would enter their repertoire, giving them another powerful tool in the systematization of shooting close-ups. At the same time, the greater flexibility provided by artificial lighting equipment would allow cinematographers to develop more carefully differentiated figure-lighting strategies, even as they refined their ability to make more obvious distinctions, such as distinctions between day and night. In this period of experimentation, the three-point lighting system was just one option among many.

As Barry Salt and Kristin Thompson have argued, the adoption of softening techniques is a case where the influence of still photography is often remarkably direct, both on the level of technology and technique.[21] A 1922 *American Cinematographer* article credits John Leezer with the first use of a soft-focus lens, while filming a 1916 film called *The Marriage of Molly-O*.[22] The same article points out that Leezer himself had experience in portrait photography, and that he used a lens designed by photographer (and future cinematographer) Karl Struss. Leezer worked for D. W. Griffith's company, and Griffith later hired portrait photographer Hendrik Sartov for the specific purpose of bringing his photographic expertise to the filming of close-ups. A part of that expertise was a mastery of the gender-based norms of portraiture, and films like *Way Down East* (1920) routinely use much more lens diffusion on close-ups of women than on close-ups of men. During the early

'20s, more and more cinematographers began to experiment with various softening techniques for their close-ups of women.

Figure lighting was not the only possible use for softening techniques; it was also used for enhancing pictorial beauty, in films such as *Sparrows* (William Beaudine, 1926). However, the softening of close-ups of women would be the longest-lasting function for the various diffusion techniques. Heavily diffused pictorial shots would go out of style in the '30s, but Hollywood cinematographers would continue to add extra diffusion to both their lights and their lenses when photographing glamorous female stars.

During this period of experimentation, Sartov and Bitzer also try out different figure-lighting strategies. Like De Meyer, they often employ flagrantly artificial backlighting; unlike De Meyer, they rarely use this option when photographing men. Regardless of continuity considerations, Lillian Gish routinely receives a powerful backlight. Whereas De Meyer happily aestheticized all his portraits, Sartov and Bitzer deploy aestheticism more strategically, with a rigid logic of sexual difference setting the terms of the strategy.

As I have argued elsewhere, backlighting soon became standard for men, as well as for women.[23] However, backlighting often seems more noticeable in images of women, for several reasons: female stars are more likely to have blonde hair, which reflects the light more easily; men are more likely to have very short haircuts, which do not pick up the backlight as well; and women receive more lens diffusion, which intensifies the "halo" effect.

Backlighting is often cited as an example of a "gendered" stylistic code, but the handling of key and fill is no less significant. In the late teens and early '20s, cinematographers tried out several options. In some cases, the options were explored with little regard for gender-based distinctions. For instance, Rex Ingram's cinematographer John F. Seitz experimented with a style that Barry Salt has called "core lighting"; this strategy calls for two side lights, leaving shadows in the middle of the subject's face. In films like *The Prisoner of Zenda* (1922), both men and women receive core lighting. Other cinematographers used side lights as a default strategy, with no differentiation for men and women. For example, in *Robin Hood* (Allen Dwan, 1922), photographed by former portraitist Arthur Edeson, men and women are usually keyed from the side, with a strong fill light to balance the modeling.

Some cinematographers experimented with styles that were much more clearly influenced by discourses of gender. For instance, in *The Toll Gate* (Lambert Hillyer, 1920), Joseph August often lights William S. Hart in such a way as to maximize the "ruggedness" of the star's features. In some shots, a key light creates a strong nose shadow (which is further emphasized by the lack of a fill light), while a kicker emphasizes his cheekbones and adds an additional accent to the nose. The "strong" contrasts carry predictably "masculine" expressive connotations.

Contrast this with Charles Rosher's handling of Mary Pickford in *Daddy-Long-Legs* (Marshall Neilan, 1919). As Barry Salt has pointed out, some of Pickford's close-ups are lit with at least four different instruments, probably all arcs: an arc to the right of the camera, an arc to the left, and two arcs for backlight.[24] As of 1919,

Rosher has not yet adopted the "soft style": he does not use lens diffusion, and he lights Pickford with multiple hard lights. Still, he manages to "flatten" Pickford's face by using two keys of equal intensity, thereby eliminating nose shadows. This draws attention to her eyes and mouth. Meanwhile, the two backlights prevent the entire image from going flat; in fact, they enhance depth by emphasizing the famous curls in Pickford's hair.

In short, the late teens and early twenties featured a variety of lighting strategies. All of these options, from Seitz's core lighting to Rosher's double-key lighting, would remain available to cinematographers throughout the studio period; however, by the mid-1920s, lighting had entered a more standardized phase, as a certain hierarchy of norms had become established. The front-side key light became an increasingly common norm for close-ups of men, providing a desired amount of modeling. As for women, enhancing the eyes and mouth remained the dominant goal, but the single frontal key was more common than the double-key. The frontality still worked to smooth out wrinkles; meanwhile, having only one key offered several advantages—it was easier to control spill, it was easier to motivate, and it could be adjusted when necessary to model desired features (e.g., Marlene Dietrich's cheekbones).

By 1930, the norms were stable enough that William Stull could summarize them in his regular *American Cinematographer* column offering advice to amateur filmmakers seeking to imitate professional techniques. This passage is taken from a section entitled "character in close-ups":

> Close-shots of people can be not only records of their physical appearance, but artistic portrayals of their characters, as well. Men, for instance, are best photographed with rather hard lightings, and in sharp focus. This lends a virile, masculine quality to the scene. Women, on the other hand, are often better shown with softer, flatter lightings—especially well-balanced back-lights—and in soft-focus. This accentuates the feminine gentleness.[25]

Although Stull goes on to qualify this advice by insisting that these rules are only generalizations, the basic advice is strikingly similar to the advice Hammond gave his amateur readers 10 years earlier, in the pages of *American Photography*. The new rule concerning backlights points to some technical changes, but the approach shows an underlying commitment to the same ideology of character. This ideology also permeates a 1932 article entitled "Shadows":

> When photographing women they should be done so beautifully. The lighting should be in a high key and aim to express femininity. The tonal range between the highlight and the shadow should never be very great.
>
> The lighting for men on the other hand should express rugged virility. The tonal contrast should be much longer than that employed for women. In fact it should be more or less contrasty without being violent.[26]

Here, the logic of expression justifies a rule concerning the use of fill light. A woman's face would feature "gentle" gradations, while a man's face would express virility with stronger contrasts.

It is because of this underlying commitment to the notion of sexual difference that a summary of the norms of Hollywood cinematography looks remarkably similar to the previous summary of photographic norms, in spite of some very real differences in technology:

A)  Direction of light: Frontal lighting smoothes wrinkles, while sidelightings and ¾-sidelightings emphasize them. The former is preferred for women, while the latter is preferred for men. Both men and women are backlit, though the backlighting is sometimes more salient in close-ups of women.

B)  Quality of the light: Lights are more heavily diffused for women, for two reasons: the expressive associations of the term "softness," and the tendency for soft shadows to de-emphasize facial lines.

C)  Contrast (lighting): All other factors being equal, close-ups of women will often feature more fill light than close-ups of men, which might feature "strong" contrasts. The lighting stage was often the best way to control contrast, since variations in developing and printing involved sometimes difficult negotiations with studio labs, which, after the transition to sound, had standardized policies that varied from studio to studio.

D)  Lens diffusion: Using soft lenses or placing gauze over a lens softens images of women. Unlike their peers in photography, cinematographers do not have the option of retouching, and deliberately throwing the subject out of focus is rare.

Of course, we should not expect any of these norms to be followed in every film, or even throughout a single film. Different stars have different features, so lighting each particular face poses its own set of problems. At most, these conventions gave cinematographers a base from which to tackle the individual cases.

One important variation concerned glamour lighting for men. Since glamour is seen as a "feminine" trait, glamour lighting for women usually follows the rules outlined above, though the diffusion might be a bit softer, and the backlights might be a bit more brilliant. By contrast, glamour lighting for men does not always follow the "masculine" conventions; rather, it uses more of the conventions associated with women. For instance, in the 1936 version of *Romeo and Juliet*, Leslie Howard's Romeo is not lit very differently than Norma Shearer's Juliet: both typically receive skin-smoothing frontal keys, generous amounts of fill, and halo-producing backlights.

Given the proliferation of Romeos in Hollywood's fictional worlds, it should not surprise us to learn that some people thought that Hollywood's handling of men was too soft.[27] In a Russian book on filmmaking, there is an unusual passage in which author Vladimir Nilsen praises Soviet cinematographers by noting that they routinely give their male leads more "virile" treatment than do their peers in Hollywood, who are accused of weakening the male leads by bathing them in "feminine" glamour.[28] While this passage reveals more about the values of Nilsen than it does about the comparative merits of Soviet and Hollywood cinematography, it is true that very few of Hollywood's star actors were receiving the rugged treatment that Joseph August was giving to William S. Hart back in 1920.

Figure 4: In Frank Borzage's *A Farewell to Arms* (Paramount, 1932), cinematographer Charles Lang uses an almost frontal key to flatten the features of Helen Hayes.

Some Hollywood filmmakers complained about this trend. During the filming of *The Roaring Twenties* (1939), producer Hal Wallis wrote the following memo regarding cinematographer Ernest Haller. Haller was Bette Davis's favorite D. P., but Wallis was not pleased with his work on the James Cagney gangster picture: "Let him give some character lighting to Cagney in the closeups, instead of making him look so beautiful. See that it is done in sketchy lighting, in shadows, etc."[29] The idea that tough guys should be lit for character still persisted, but this conflicted with the conventions of glamour, which carried "feminine" connotations.

These examples demonstrate that the gender-based logic still governed the ways that filmmakers thought about figure-lighting. The strategies may have varied from film to film, but certain variations were felt as departures from the norm precisely because they violated expectations about the differences between men and women.

Finally, when comparing Hollywood cinematography and photographic portraiture, the figure-lighting strategies must be complicated by another factor. A portraitist's primary job is to create a flattering image of the sitter. For the Hollywood cinematographer, this is one job among many. While emphasizing the star's brilliant blonde hair, the cinematographer must also emphasize the scene's primary plot point. While giving the star an eyelight, the cinematographer must also imitate sunlight, or a candlelight, or a headlight. While modeling the curve of the star's cheekbone, the cinematographer must also express the dramatic arc of the storyline. We might call this the problem of multifunctionalism. Among cinematographers, the highest

Figure 5: For Gary Cooper, Lang prefers the ¾ side-light, which models the character in Cooper's face. *A Farewell to Arms* (Paramount, 1932)

praise was reserved for those who could maintain glamour while fulfilling a wide range of potentially competing functions.

While examining the problem of multifunctionalism is beyond the scope of this paper, my last example should indicate some of the ways that multifunctionalism could transform the figure-lighting conventions. Let us consider Charles Lang's Academy Award-winning work on Frank Borzage's *A Farewell to Arms* (1932). Figures 4 and 5 show two images from a shot/reverse-shot sequence in the film. Although Helen Hayes and Gary Cooper are in the same space, their close-ups are handled differently. Most importantly, there are differences in the direction of the key light, and in the use of lens diffusion. Hayes receives a frontal key, from a light placed almost directly above the camera. (This light casts the shadow under Hayes's chin.) Because of its frontal placement, it leaves no strong shadows on Hayes's face; even her nose casts no visible shadows. This has the effect of drawing our attention to her eyes and mouth. In Stull's terms, the lighting is "flatter," turning her face into a flat, smooth plane against which the eyes and lips stand out. By contrast, Cooper's key comes from a front-side position, lighting the far side of his face, while keeping the camera side in shadow. The shadow receives some fill, but not so much as to cancel out the difference between the two sides of his face. Cooper receives more "modeling," and his face appears remarkably three-dimensional in comparison to Hayes's "flatter" treatment; for instance, the shape of his nose and the area around his mouth receive more detailed handling. At the same time, Hayes's shot contains more lens diffusion, which further "softens" her features.

Figure 6: In a nighttime exterior scene, Lang uses a similar ¾ side placement for Cooper's key-light, while increasing the contrast. *A Farewell to Arms* (Paramount, 1932).

We get a better sense of Lang's accomplishment in Figures 6 and 7. In this scene, a drunken Cooper examines the shape of Hayes's foot, while they hide in an alley during a bombing raid. The time (night), the location (an alley), and the type of scene (battle scene) all call for a darker tonality than was used in the previous example. Lang accommodates this competing functional need without compromising his carefully differentiated figure-lighting strategy. The placement of Cooper's key is almost identical, but his backlight has been eliminated, and he receives little or no fill light. The result is a high-contrast image, with a dark overall tonality. This dark tonality fulfills the above-mentioned functional needs, but the lighting strategy still manages to follow the logic of emphasis and expression: the placement emphasizes the character-defining features of his face, while the "strong" contrasts express his "masculinity". Meanwhile, Hayes's key light is still essentially frontal, though it does cast a bit more shadow on the far side of her face. The key is at a lower level of brightness, relative to the exposure. This allows Lang to achieve the necessary dark tonality, while creating a "smooth," low-contrast image. Heavy lens diffusion smooths the image even more. Again, the strategy follows the dual logic of emphasis and expression: the frontal placement de-emphasizes facial lines, while the "gentle" gradations in tonality express the idea of "femininity." Presumably, it was multiply effective solutions such as these that helped Lang win the Academy Award for his work on this film.

Figure 7: When lighting Helen Hayes in the same nighttime exterior, Lang darkens the overall tonality while maintaining soft, gentle gradations. *A Farewell to Arms* (Paramount, 1932)

Of course, Lang's job would have been simpler if he took the easy route and dropped the differentiated figure-lighting norms from the equation. The fact that neither he nor his colleagues in the ASC did so is testimony to the tenacity of the ideology of sexual difference. On a technical level, a Hollywood close-up from the 1920s or 1930s does not look like a photographic portrait from the 1910s. This does not mean that the influence is negligible; rather, the influence lies at a deeper level. Strategies of portraiture were guided by a logic of character, and the logic of character was shaped by a discourse of difference. It is in the strategy of differentiating images of men and women through techniques of emphasis and expression that we find portraiture's deepest influence on Hollywood cinematography.

### Notes

1. General research for this paper involved examining numerous issues of the following journals: *American Cinematographer*, *American Photography*, *The American Annual of Photography*, *The British Journal of Photography*, *International Photographer*, *Photographic Review*, *Studio Light*, and *Vanity Fair*. More specific references are listed below.
2. Arthur Hammond, "Home Portraiture," *American Photography* 11 (March 1917): 130.
3. Hammond, 130.
4. Henry Peach Robinson, *The Studio, and What to Do in It* (1891; repr. New York: Arno Press, 1973), 42.

5. T. W. Kilmer, "Artificial Lighting in Portraiture," *The American Annual of Photography* 32 (1918): 68.

6. Kilmer, 70.

7. Geo. F. Greenfield, "An Efficient Method of Working the Enclosed Arc," *The British Journal of Photography* 60 (January 31, 1913): 79–81.

8. George R. Henderson, "Portraiture with the Open Arc," *The British Journal of Photography* 63 (January 28, 1916): 53–54.

9. Arthur Hammond, "Portraiture: Lighting," *American Photography* 14 (November, 1920): 606.

10. Hammond, "Portraiture: Lighting," 607.

11. Hammond, "Portraiture: Lighting," 610.

12. Antony Guest, *Art and the Camera* (1907; repr. New York: Arno Press, 1973), 134.

13. Paul L. Anderson, *The Fine Art of Photography* (1919; repr. New York: Arno Press, 1973), 237.

14. Anderson, 238–9.

15. Anderson, 281–2.

16. Hammond, "Portraiture: Lighting," 618.

17. Guest, 147.

18. Anonymous, "Our Illustrations," *Studio Light* 6 (June, 1917): 6.

19. Edward Steichen, *A Life in Photography* (Garden City: Doubleday and Company, 1963).

20. See Barry Salt, *Film Style and Technology: History and Analysis*, 2nd ed. (London: Starword, 1992), 115–126.

21. See Salt, 161–163, and David Bordwell, Janet Staiger, and Kristin Thompson, *The Classical Hollywood Cinema: Film Style and Mode of Production to 1960* (New York: Columbia University Press, 1985), 287–293.

22. Anonymous, "John Leezer," *American Cinematographer* 2 (February 1, 1922): 40.

23. Patrick Keating, "The Birth of Backlighting in the Classical Cinema," *Aura* 6 (2000): 45–56.

24. Salt, 117.

25. William Stull, "Amateur Movie Maker," *American Cinematographer* 11 (October, 1930): 34.

26. George W. Hesse, "Shadows," *American Cinematographer* 13 (June, 1932): 37.

27. The glamorous male star had been around for some time. See Gaylyn Studlar, *This Mad Masquerade: Stardom and Masculinity in the Jazz Age* (New York: Columbia University Press, 1996), 90–198.

28. Vladimir Nilsen, *The Cinema as a Graphic Art*, trans. Stephen Garry (New York: Hill and Wang, 1959), 177–9.

29. Memo from Hal Wallis to Sam Bischoff, August 18, 1939, in the *Roaring Twenties* files at the Warner Bros. Archives at University of Southern California.