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The Unexplored Ethics of Copywork Image Manipulation

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Abstract

Although copywork is a common practice in the field of visual resources, there is little information on the ethical considerations of altering images digitized from books or articles. What state of the original should the final digital surrogate replicate – how the artwork appears in person or how the image in the publication appears? Does this change when the purpose of the image is documentary rather than artistic? Using as a basis Franziska Frey and James Reilly's four stages of digitizing and restoring photographs, I explore the ethical implications inherent in digitizing and altering images without possessing the original artifact or artwork, as well as discuss the importance of considering one's audience and their level of visual literacy.

Although copywork is a common practice in the field of visual resources, there is little information on the ethical considerations of altering images digitized from books or articles. What state of the original should the final digital surrogate replicate – how the artwork appears in person or how the image in the publication appears? Does this change when the purpose of the image is documentary rather than artistic? In this paper, I propose to explore these questions and others in an effort to stimulate conversation about the ethics of altering digital images created via copywork.

While much has been written about the ethics of image manipulation outside the field of visual resources (especially within photojournalism), the ethics of manipulating images of cultural objects and fine art are not well explored, particularly as relates to copywork.[1] Although many digitization guidelines and best practices mention the need for image manipulation to ensure accurate color reproduction, they do not fully explore the question of which state of the original the digital surrogate should replicate, nor the ethical considerations inherent in this sort of image manipulation.[2] Also missing is a discussion of what constitutes accurate image replication where works of art are concerned.[3]

In the field of photography, a related field with similar but not identical concerns, Paul Conway of the University of Michigan is at the forefront of researching the ethical implications of the digitization process on photographs. In "Building Meaning in Digital Photographs," Conway explicitly explores how meaning in digitized images is influenced by the decisions of the individual performing the digitization.[4] His paper relies upon the model established by Franziska Frey and James Reilly in *Digital Imaging for Photographic Collections: Foundations for Technical Standards*.[5]

Frey and Reilly outline four stages to which a digitized photograph can be restored. The first, "the photographic image is rendered" can be considered "as is" – the state of the photograph at the time it is digitized, maintaining in the digital surrogate the flaws inherent in the physical object.[6]

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[1] Photojournalism publications on digital image manipulation primarily focus on the "truth" of the photograph and the moral aspects of tampering with the truth. The need to maintain the fidelity of the original scene is of primary concern, as is the need to accurately identify images that have been altered to allow the public to fully understand the context of the image. While these considerations are interesting, they are not particularly useful for a discussion of the ethical considerations of tampering with the aesthetics of images derived from copywork. See Paula Roberts and Jenny Webber, "Visual Truth in the Digital Age: Towards a Protocol for Image Ethics," *Australian Institute of Computer Ethics Conference, July 1999, Lilydale*; Thomas H. Wheeler, *Phototruth or Photofiction?: Ethics and Media Imagery in the Digital Age*, (Taylor and Francis, 2002), etc.

[2] Federal Agencies Digitization Guidelines Initiative (FADGI) – Still Image Working Group, *Technical Guidelines for Digitizing Cultural Heritage Materials: Creation of Raster Image Master Files*, 2009, http://www.digitizationguidelines.gov/; Library of Congress, *Technical Standards for Digital Conversion of Text and Graphic Materials,* 2006, http://memory.loc.gov/ammem/about/techIn.html; etc.

[3] Thanks to Lael J. Ensor for suggesting the consideration of this aspect of ethics and image manipulation.

[4] Paul Conway, "Building Meaning in Digitized Photographs," *Journal of the Chicago Colloquium on Digital Humanities and Computer Science* 1, no. 1 (2009): 1-18, accessed April 22, 2016, https://letterpress.uchicago.edu/index.php/jdhcs/issue/view/5.

[5] Franziska Frey and James M. Reilly, *Digital Imaging for Photographic Collections: Foundations for Technical Standards (*Rochester: Image Permanence Institute, 2006).

[6] Ibid, 28.

The second stage, "the original appearance of the photograph is rendered," is restoring the digital surrogate to how the photograph would have appeared *at the time it was taken* (i.e. removing signs of aging and handling, etc.). As Conway points out, this involves a subjective alteration of the image to a state no longer in existence, introducing room for human error or miscalculations as to its original state. This can be considered the object "as was."[7]

The third stage is where the "photographer's intent is rendered" – this allows for correction of errors in the processing of the photograph (etc.) to restore it to the image the photographer likely wanted to capture. This can be considered the photograph "as desired" by the artist.

The fourth and final stage, "the original scene is rendered" relies upon removing the intervening photographic medium and simply rendering the scene that the photographer saw at the time of the image capture. This effectively removes any remnants of the photograph's materiality, and can be viewed as the original scene "as seen."[8]

These four stages, however, presume that the individual performing the digitization has the original (i.e. the photograph) in hand and is using that as the basis of the image. Where these steps (besides the fourth) fall short for visual resources is in the consideration that images are derived not only from photographs but also from physical artworks that have been reproduced not just once, but possibly numerous times. Some visual resources departments are able to obtain digital images of artworks removed by only one generation (i.e. a digital photograph of an artwork in a museum), but many institutions use images that are separated by at least two generations from the original (slides, copywork from a book or magazine, etc.).

This begs the question: in dealing with copywork, how applicable are Frey and Reilly's stages? Despite the fact that these four stages of restoration (as is [the physical object as it appears right now], as was [how it appeared before the effects of aging and handling, etc.], as desired [without processing errors], and as seen [the state of the physical object portrayed in the photograph]) may be considered by some to set the standards for image editing, these are *specifically* for photographs (again, assuming possession of the original object).

In terms of copywork, the type of image digitization this paper investigates, I argue that Frey and Reilly's stages could be adapted/interpreted as: as is (how the image appears *in the book/magazine/slide*, rather than the physical artwork portrayed), as was (how the artifact originally appeared, so removing the effects of aging and handling such as craquelure on a painting or stains and small tears on a photograph), and as seen (how the artwork appears currently, removing the materiality of the intermediary mediums; an example of this type of treatment would be to correct decayed colors of an aging slide to accurately portray the artwork as it would appear in person). "As desired" is likely infrequently applicable to this type of work and as such is not further considered in this paper.[9]

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[7] Paul Conway, "Building Meaning," 6.

[8] Frey and Reilly, *Digital Imaging*, 29.

[9] Although "as desired" could be interpreted as removing "mistakes" that occurred due to materials and their materiality such as when da Vinci painted the *Last Supper* using innovative materials that almost immediately started to flake, the

In cases such as these, the question becomes one of image editing; after an image in a book is digitized, if image editing is performed to adjust the color, etc., to what state does the person performing the alterations restore the image? As Conway points out, "human judgment [in image manipulation] often involves subjective assessments," but how are these assessments made?[10] And if utilizing the "as is" method (as described in my proposed adaptation of the four stages), does the individual maintain abnormalities or flaws in the image created by the publishing process?

Does that change if the artwork is replicated online (perhaps not in high enough resolution for use in an academic setting, but large enough to judge its colors) in a way that shows coloration that is clearly distinct from the image in the book? A personal example of this would be a portrait of Mary Shelley reproduced in an exhibition catalog from 2002 as contextual information (it was not a piece included in the exhibit) that had an eerie orange/yellow tint, to the point of obscuring details of the painting (fig. 1). Online searching revealed a more recent photograph from the museum that owns the artwork, portraying a much more "normally" colored Mary Shelley (fig. 2).

Reginald Easton, "Portrait of Mary Shelley," 1851-1893

Fig. 1

Fig. 2

In cases such as this, does one maintain the peculiarities of the printing process in an effort to preserve the artifacts from the book, or should one attempt to create an "as seen" image? If creating "as seen," how does one decide which source is accurate, and to what extent is common sense utilized regarding the natural colors of an object? If the individual performing the

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intent of the artist is likely not something that the visual resources professional can divine absent documentation. See the Metropolitan Museum of Art's *Heilbrunn Timeline of Art History*, "Leonardo da Vinci (1452-1519)," accessed June 3, 2016, http://www.metmuseum.org/toah/hd/leon/hd_leon.htm.
[10] Conway, "Building Meaning," 6.

imaging has a background in art or art history that enables him or her to make an educated guess as to the actual colors of the physical object, is that a valid reason to create an image decidedly distinct from its source (the source being Mary Shelley's portrait *as seen in the book* rather than the physical painting)?

Further, does "as seen" change when the image is documentary but the original method of capture (photography) has started to change or decay? In this instance, it is the original object that has changed; but is it the original photograph itself that is significant, or is it the *content* of the photo that is important? An example of this would be a book containing a photograph from the 1970s (a period when color photography was notoriously chemically unstable) of an African altar intended to document the arrangement of artifacts and the ways in which they were used.[11] Because of the age and chemical composition of the original photograph the colors shifted, causing effects such as people with pink-toned skin or cyan-colored walls; the reproduction of the image in the book, moreover, maintained any decay inherent in the original photograph.

Given the known unreliability of the chemicals in color photography from the mid to late twentieth century, is it reasonable to use best judgment in adjusting the colors of the image to more accurately emulate real life? The question then becomes; what aspect of the image is important to the institution? Is the documentary element the desired component of the image, or should the inherent materiality of the photograph be maintained? Is it ethical to make assumptions of this sort in editing and changing an image? What is the function of the image?

Another issue is that if images are scanned from printed matter, some artworks will span more than one page, resulting in multiple images that have to be stitched into a single image with a gutter. While someone with image editing skills could conceivably create an image without a visible seam, what are the ethical implications of erasing the seam and the surrounding gutter? For installations where the *exact* same layout can never truly be duplicated, it may be appropriate to create a seamless image, but for works that are fully fixed, like a painting or drawing, when does erasing the seam and attendant distortions cross into meddling with the artist's intent?

Furthermore, who has the authority to make these decisions? Can student workers use their best judgment for adjusting colors that are clearly "off?" What about deciding (if they possess the necessary technical skills) if the gutter should be eliminated in an image that spans more than one page? Is that a decision that can only be made by someone with both an educational background in the field as well as the technical expertise required?

Lastly, do these factors change when it is a faculty member requesting that an image be questionably altered? It is not an unknown phenomenon (based on anecdotal evidence from fellow visual resources professionals) for faculty or instructors to request alterations to images already in the institutional repository, i.e. increasing the saturation or changing the color tinting.[12]

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[11] See Robert Farris Thompson's *Face of the Gods: Art and Altars of Africa and the African Americas*, Prestel, Munich: The Museum for African Art, 1993 for examples of this type of image decay.
[12] Marian Lambers, discussion with the author, May 6, 2016.

The reasons for these requests can be manifold, but may come from the contemporary preference online and in the media for oversaturated colors, faulty remembrance of the appearance of an object, or even a degrading photograph taken by the instructor (or someone close to them) of the artwork. Since the images in the repository are likely selected specifically to serve instructors, how should a situation such as this be addressed? While providing more than one version of the image in the repository is perhaps a tenable solution, this has the potential to create confusion for others (particularly students) who are searching for the artwork and discover a variety of versions of the same object.

In this case, how do you identify the "accurate" image for those who may not have the knowledge of either the materiality of the medium or of the nature of the artwork to be able to recognize the "correct" coloration or saturation? An additional consideration is that people may see color differently; what if there is a disagreement on color between VR professionals themselves? How can these questions be addressed?[13]

While no standard for addressing these questions currently exists, institutions have devised various methods for handling these questions as they arise. The Visual Resources Department at the College for Creative Studies (CCS) in Detroit where I work generally utilizes the practice of "as seen." When editing digitized images, CCS has adopted, in most cases, the practice of striving to emulate the appearance of the physical artwork as it would appear now. This means maintaining any signs of aging or handling manifested on the physical object, but correcting for any artifacts from the printing and digitization processes.

If an image is selected for its factual documentation of a performance or installation piece (broadly speaking), CCS has the view that the colors should be as close to the reality *of the scene* as possible. This means anticipating and adjusting for any decay in the composition of the original image (again, an example would be color photographs from the latter half of the twentieth century) to accurately render the content of the image, rather than the physical photograph itself. In this instance, CCS has essentially adopted the "as was" stance – removing the effects of the materiality of the photograph to recreate the image as it would have appeared at the time it was shot.

Conversely, other institutions have chosen to preserve the image "as is" – that is, not eliminating artifacts manifested in the printing process. The reasoning for this is an acknowledgement that images published online, even by the museum that owns the work, may not be accurate but the representation in the book can be replicated, thereby eliminating the need for guesswork. In this policy the representation in the book, which serves as the origin of the

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[13] It is worth noting that ARTstor has dealt with image duplication by retaining all versions of the artwork while highlighting the image deemed the "truest representation of the object." The duplicates are clustered together behind the preferred version, which is presented in the search results; the other versions can be accessed by clicking the "cluster" icon below the preferred image. While this is a possible solution for individual institutions, ARTstor acts as an aggregator of *collections* of images from different sources and organizations whereas visual resources department for individual institutions potentially have more say in the selection of individual images for their collections, allowing for greater curatorial oversight. "Frequently Asked Questions," ARTstor, artstor.org, accessed September 10, 2016.

digital image, is seen as the primary source and image editing is performed to remove artifacts of the digitization process itself but no more.

Some basic steps can and are taken to lessen the introduction of artifacts during the digitization process: calibration of equipment (both monitors and scanners), as well as ensuring the correct color mode for viewing online (since this is different than the mode for printing), etc. However, these corrections do not supply an answer to many of the ethical questions posed above. While answers will vary for institutions, I believe that it is important for the institution to consider their users.

Will the students looking at the images have enough art historical knowledge to know that a painting of Mary Shelley would not actually portray her with orange skin, but that the effect is rather an oddity of the printing process? Although this may seem common sense for an artwork from that era (that unearthly orange could not be a natural skin tone, even in this age of self-tanning lotion), it is my belief that it would be easy for a student to uncritically accept it as truth if their visual literacy skills were lacking, or they were not aware of the nature of portraiture in the nineteenth century (that is, as a means of accurately portraying individuals before the advent and popularity of photography).

Further, confusion can and likely will arise should multiple versions of an image be provided, as might happen when dealing with requests from instructors for increased saturation or alteration of the colors. It is plausible that students will use the first image that shows up, whether it is the best version of the artwork or not. Surely this is not what we would want, nor is it in keeping with the goals of the field of visual resources!

Visual resources professionals fill requests for faculty and provide images for pedagogical use, but I believe it is important to remember that students also use our databases. Further, these students may lack the critical thinking skills or simple knowledge of art history to distinguish between conflicting images, or to recognize when the color is off (as with Mary Shelley's portrait or a 1970s documentary photograph). By providing something less than the most accurate replication of the original possible, I believe we potentially create confusion and frustration, and may even undercut ourselves in our proclamation that our repositories are more trustworthy than images found online.

Although consideration for the artist's intent will remain, in my view, one of the most important aspects of image editing, I think that visual resources professionals should have the latitude to make judgments based on their experience in the field, technical expertise, and knowledge of art history and art historical trends. This may or may not extend to student workers, depending on their experience and skill level.

The intent of the artist can be taken into account for documentary and anthropological photographs too; although the photograph itself is the original and its chemical instability is evidence of the materiality of the medium, it is my view that these photographers, in attempting to document an altar or performance, would want the original to be portrayed. Disseminating

images of pink people and teal walls creates an inaccurate portrayal of that community and subsequently the subject of their research, something they might not want.[14]

What is undeniable is that the area merits further research and exploration. Although publications related to maintaining the materiality and meaning of objects during digitization exist (particularly for manuscripts and photographs – again, assuming possession of the originals), a discussion of how these concerns affect copywork of fine art is lacking. A consideration of these questions and the need for standardization is evident, even though consensus may initially prove difficult to achieve.

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[14] Worth considering, however, is the fact that these images were included in publications, presumably with the photographer's consent (but these publications may be old; see *Face of the Gods: Art and Altars of Africa and the African Americas* by Robert Farris Thompson, The Museuum for African Art, Prestel, Munich: 1993).

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Fig. 1. Reginald Easton. *Portrait of Mary Shelley.* 1851-1893, watercolor and bodycolor on ivory laid on card, 11 x 8.8 cm. Bodleian Libraries, University of Oxford. From: Susan E. Lederer, et al. *Frankenstein: Penetrating the Secrets of Nature: An Exhibition by the National Library of Medicine.* New Brunswick, NJ: Rutgers University Press (2002), pg. 2. Public domain.

Fig. 2. Reginald Easton. *Portrait of Mary Shelley.* 1851-1893, watercolor and bodycolor on ivory laid on card, 11 x 8.8 cm. Bodleian Libraries, University of Oxford. From: Bodleian Libraries, http://shelleysghost.bodleian.ox.ac.uk/portrait-of-mary-shelley (accessed June 22, 2016). Public domain.