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Past caring: archive, affect, and whiteness in digital colourisation

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The digital colourisation of historical photographs has received prominent and favourable media attention since the 2010s; several museums, heritage organisations, and publishers have adopted it. In the US and British contexts, both the selection of images to colourise and the ways in which their colourisation is discussed point to the overlooked but significant role the process plays in reinforcing racial identities and extending historical biases into the present. By examining the work of high-profile colourisers and the presentation of colourised photographs in social and traditional media, I argue that digital colourisation is a form of ‘white sight’ which sustains whiteness and its attendant powers. Operating at the intersection of a visual economy and an affective one, digitally colourised photographs generate an emotional response and foster a collective identity geared towards whiteness. In this article, I attend to the impact of digitisation on historical photographs, the sources and subject matter of digitally colourised photographs, and the language used to discuss them, in order to reveal the structures of racial and gender bias underneath – and challenge assertions that colourisation is a form of caring for the past.

INTRODUCTION

With four million members, r/Colorization is in the top 1% by size of Subreddits, the self-moderated communities that make up the social media platform Reddit. The smaller r/ColorizedHistory (‘History in Color’) Subreddit has more than 630 000 members. Members post and comment on digitally colourised photographs almost daily, although History in Color has been less active since going private in 2023 in protest at policy changes on the Reddit site. On both Subreddits, some posts receive few obvious engagements; others inspire comment threads and can earn hundreds of ‘upvotes’, or likes. Rare examples earn more: one of the most-engaged posts on either of these colourisation Subreddits, earning 3800 upvotes and dozens of comments in September 2022, is

the digitally colourised version of an 1863 *carte de visite* well-known to historians of photography and American slavery (Figure 1). Its studio portrait, captioned ‘Isaac & Rosa, Slave Children from New Orleans’, circulated widely in support of the Union and abolitionist cause during the Civil War. A legend on the reverse states that profits from sales of the photograph were dedicated to the education of ‘colored people’ in southern Louisiana, by then under Union control.¹

The colourised version removed the caption, cropped the image, and gave Rosa white skin, brown hair, and blue eyes, as if to emphasise her lighter complexion (‘blonde’, according to a contemporary source). In doing so, the colouriser in some ways furthered the intention of the original photograph, which appears to have been slightly overexposed to emphasise the girl’s paler skin, without sacrificing the darker tones of her companion, Isaac. A series of such portraits of formerly enslaved children were meant to demonstrate to viewers in the American north that such children had futures in a free society, if they received appropriate educations (Mitchell 2008, 1–5). But a subset of photographs depicting light-skinned children like Rosa also served as a form of ‘visual witnessing’ of the long-term sexual exploitation of enslaved Black women by white enslavers (Fox-Amato 2019, 178). Around 160 years later, the colourised version of the Isaac and Rosa *carte de visite* inspired Subreddit comment threads that emphasised this history of sexual violence, too. Posters condemned the cruelty of slavery, a handful recounted personal mixed-race family histories, and a couple of comments expressed anxiety over whether the image could be misconstrued as showing an enslaved white girl. No one mentioned Isaac.

The co-implication of photography and racialisation has been the subject of extensive analysis and theorisation (Parsons 2020). How that co-implication operates in digital spheres, and specifically in digital colourisation, has not. In this article, I address this oversight by

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FIGURE 1. *Carte de visite* entitled 'Isaac & Rosa, Slave Children from New Orleans'. The card was one of a series sold to raise funds for the education of the formerly enslaved in Louisiana. M.H. Kimball studio, New York, 1863. Albumen print on card, 10 × 6 cm. Library of Congress, call number LOT 14022, no. 117. Public Domain.

examining the circulation of digitally coloured photographs in both social and traditional media. My focus is on the American and British contexts where colourisation has proven to be a popular pastime. It has received prominent and favourable attention in the press and been adopted by several museums and heritage organisations. I argue that in these contexts, digital colourisation operates through what Nicholas Mirzoeff (2023) terms white sight, part of the 'white reality' projected through billions of images to sustain the 'learned cultural system' of whiteness and its attendant powers. The media spaces and discourses in which colourisation has flourished over the past decade serve the central fantasy of whiteness, namely that white experience is universal and thus unmarked by race, gender, disability, queerness, or any form of human difference.

Whiteness is made visible in order to be rendered invisible. Colourised photographs serve this function well. Colourisation combines a visual economy (Poole 1997), based on photographic archives and archetypes,

with an affective economy (Ahmed 2004), in which the circulation of emotions forms a collective identity. As they are shared in online forums or marketed in the commercial sphere, digitally coloured photographs crystallise a desire to access certain pasts, or ideas of the past, by generating an affective response. In doing so, they foster a collective identity geared towards whiteness, regardless of the subjects of the coloured photographs. This is not to suggest that all digital colourisations are created by and for white audiences: that would be to oversimplify both white supremacy and photography. Rather, paying attention to the impact of digitisation on historical photographs, the selection of photographs for digital colourisation, and the language used to discuss digitally coloured photographs, reveals the structures of racial and gender bias underneath.

A language of familiarity, care, and empathy adheres to colourisation and its products. To care about old photographs enough to spend hours adding colour to them, labouring over pixel points, digital brushwork, and hue saturations, is to care about the past. Consuming, commissioning, commenting on, and critiquing coloured photographs expresses care as well, whether through admiration of the colouriser's skill or discussion about colour 'accuracy', based on close observation of the coloured result. Where a post has included historical information with the coloured photograph – as with the coloured image of Isaac and Rosa – comments may elaborate on that history, cite further sources, or contest certain details. But most colourisation posts on social media channels are sparing with historical facts or information about the original photograph, including its source. Instead, like the studio and copyright credits on *cartes de visites*, posted images often bear the colouriser's business name or online handle. In the extractive logic of capitalism, commerce can be a form of caring, too.

By linking archives, affect, and whiteness in relation to digital colourisation, I seek to understand its popularity and place it in a wider, historicised context, challenging the universalising claims its proponents often make. The visual qualities of digitally coloured photographs, and how they relate to the digital surrogates used as a source, are an important consideration. But I analyse the verbal discourse around the coloured photographs as well, focusing on how they have appeared in press coverage, on professional colourisers' websites, and in the posts and comments of the two leading colourisation Subreddits. For this last, I have not identified posters, linked to specific threads, or used direct quotes in this article, to protect the anonymity of colourisers and commenters. Social media posts blur the public and the private, and are often written hastily and in responsive mode (Burkell, Regan, and Steeves 2022). Having

observed the Subreddits over several months, however, I found that the selection and discussion of digitally colourised images on Reddit complemented what I had observed in traditional media and in the public-facing work of professionalised colourisers, suggesting shared values, ideas, and communities of practice. Reddit places no restrictions on its data, and its privacy policy advises users that their posts are public (Lizama-Mué and Suárez 2022). Nonetheless, an ethics of care in the digital commons should apply not only to the circulation of digitised photographs, as Temi Odumosu (2020) cautions, but also to our research on those who create, circulate, and comment on them. Discourse is a shared social phenomenon, by its nature. My argument does not concern individuals but a wider pattern.

The article has four sections, followed by a Discussion and Conclusion. I first consider histories and responses to the colourisation of film and still photography since the 1980s. I then discuss the impact that digitisation itself has had on the visualisation and visibility of historical photographs, since this informs both the sources on which colourisers draw and the public reception of their work. In the third section, I turn to the subject matter of digitally colourised photographs, alongside the language used to discuss them; these form what I characterise as archives of whiteness. Online forums can offer a space for discussing race and racial identities, as the Isaac and Rosa example shows, but such engagements are rare. Finally, I explore the marketing of colourisation as an artisanal craft, whose emotional and artistic labour – forms of care – may now be threatened by artificial intelligence. Digital colourisation has flourished for more than a decade, with little academic or mainstream critique. It reproduces racialised and gendered visualisations while concealing the historical circumstances of their creation. Added colour appeals to emotions that are similarly treated as ahistorical. Masked as empathy and hailed as universal, digitally colourised photographs reinforce the infrastructures of whiteness that photography did so much to create.

DIGITAL COLOURISATION: HISTORIES AND RESPONSES

The positive reception of colourisation arises at a specific historical juncture. It was not always so. When computerised technology for adding colour to black-and-white motion pictures emerged in the 1980s, it was met with extensive debate and largely negative responses from film makers, scholars, legal experts, philosophers, and the media (Grainge 1999, Allison 2022). Decades later, with more technological possibilities at hand, the 2009 French television series *Apocalypse*, which colourised World War

2 films from many sources, had a warmer response, with the exception of art historian Georges Didi-Huberman's intervention in French media (Geimer 2021). Echoing his arguments about the *Sonderkommando* photographs (Didi-Huberman [2004] 2008), he contended that *Apocalypse* was an inappropriate and misleading interference with archival material that should be encountered in its extant form for both moral and methodological reasons.

As the digital colourisation of still photography began to gather pace in the early 2010s, media reaction moved from warm to rapturous: here was history 'brought back to life' by adept computer coders who were 'passionate', meticulous, and dedicated, if slightly obsessive (Chapman 2018). In the Anglophone world, few academic voices or cultural commentators objected to colourisation, and several archives, heritage organisations, and historians embraced it as a way to gain press coverage and increase public engagement with their holdings, such as the colourisation of a photograph from the Tutankhamun excavation in conjunction with a 2014 Ashmolean Museum exhibition (Riggs 2021). The Tutankhamun colourisations were the work of Dynamichrome, a UK-based firm established by Jordan Lloyd. Brazilian colouriser Marina Amaral also gained media traction around this time, thanks to her use of social media and an online community of fans and fellow colourisers. The process required a high level of proficiency and paid licence for proprietary software, chiefly Adobe Photoshop. Digital colourisation also benefitted from cross-fertilisation with other technological trends. Improvements to phone cameras and the ubiquity of social media gradually extended its appeal and reach. Anyone could alter the tones and textures of their own digital photographs, including preset filters to turn natural colours into monochrome. With digital transformations so commonplace, there was no reason to exclude old black-and-white photographs from the reverse treatment – added colour – once they existed as digital files, a process made easier as flatbed scanners became widely available.

In film studies, the high-profile and highly successful 2018 release of Peter Jackson's *They Shall Not Grow Old* revived earlier criticisms in light of the expanded digital capabilities not only of colourisation, but of other cosmetic alterations such as speed changes, lighting effects, and the insertion of newly created segments. Scholars took issue with the extent of Jackson's changes to the archival footage as well as the selection he made from the Imperial War Museum archives available to him (Allison 2022; Das 2019; Jolly 2018; Napper 2021; Watkins 2021). The war office origin of the original films centred white British men's experiences of the Western Front, excluding women and indigenous colonial forces.

By repeating, altering, and aggrandising films that were already steeped in white masculinity and empire, Jackson denied their own histories as archival objects, as well as the histories of all the participants not pictured by the camera.

For the digital colourisation of still photography, 2018 also marked a turning point with the introduction of DeOldify open-source software, which uses artificial intelligence.² DeOldify was trained on ImageNet, an enormous dataset originating in the United States in 2009, formed by scraping and categorising millions of photographs from across the internet. Selfies, vacation snapshots, and advertising photographs provide the basis for DeOldify – with layers of visual and verbal bias built in. As Crawford and Paglen (2019) document, many of the labels applied to ImageNet photographs of human subjects used racial slurs and sexist terms. DeOldify inspired dozens of similar colourising tools and made digital colourisation cheaper and easier than ever, even for casual users of smartphones and computers. It normalised colourisation practices which had already been buoyed by positive press and public-facing commissions for Amaral, Lloyd, and others.

The only negative coverage of the process arose in 2021, not for the colourisation itself but for the digital addition of smiles to photographs of prisoners in Cambodia's notorious S-21 prison, today the Tuol Sleng Genocide Museum. When these were published in online magazine *Vice*, the backlash against Irish colouriser Matt Loughrey was swift: Cambodia's Ministry of Culture and Fine Arts threatened legal action as Loughrey had no permission to use the images, contravening the country's Archives Act (Seymour 2021). Loughrey defended his work ('I am not falsifying history'), but his website 'My Colorful Past' has since been taken down and social media channels closed. UK-based colouriser Jordan Lloyd responded to the S-21 controversy by circulating a 'Colorizer's Code of Conduct', which several colourisers signed. It is vague ('Don't be evil') and unenforceable, with tenets such as agreeing 'to implicitly acknowledge' colourised photographs 'as a derivative work' (Lloyd 2021).

Lloyd, Amaral, and other colourisers emphasise that they create new digital images and therefore are not changing the historical photograph itself. Yet the digital world from which their colourisations derive, and in which they thrive, renders this claim disingenuous. As colourised versions of familiar photographic subjects circulate, they surface in online searches alongside or ahead of monochrome versions (Riggs 2021). They also enter the picture libraries to which newspaper,

magazine, and book publishers subscribe, so that editors looking to enliven text-based layouts with colourful illustrations will use colourised photographs without identifying the alteration or even being aware of it. To take just one example, colourised Tutankhamun photographs have appeared unacknowledged in the art magazine *Apollo* and in a commemorative stamp brochure from the Royal Mail.³ Thus although the originals of colourised photographs still exist, both as monochrome digital surrogates and physical photo-objects, the preference of algorithms and editors for colour has reduced their visibility and their perceived value.

What may appear to be a 'mere' aesthetic choice – colour or greyscale – has deeper implications for the integrity of archival sources. This was at the heart of Didi-Huberman's *Apocalypse* critique. Tampering with the visual qualities of archival material means discounting, ignoring, or even denying its materiality, the circumstances of its production, and its temporal existence (thus also Jolly 2018 and Napper 2021, for film). In art historian Peter Geimer's words, 'what is also evaded with the colouring of history, is the realisation that photography and film are not a restoration of the past, but evidence of its historicity' (2016, unpaginated ebook). Many digital technologies entangled with historical photographs, from colourisation and zoom amplification, to internet databases, online search functions, and social media, are invested in the evidentiary value of photographs; that is to say, their content, or what the surface of the image seems to show. Thus even before the advent of colourisation, photographic archives entered a digital space – and digital temporalities – that denatured photographs in what seemed the most natural, and indeed most photographic, of ways: by generating an image that looked like itself.

HISTORICAL PHOTOGRAPHS IN DIGITAL TIMES

It may seem too obvious to state, but digital colourisation relies on photographs having been digitised in the first place – a process with its own history, and one easily overlooked. The practice of digital colourisation could only emerge, and flourish, in the 2010s because many archives, libraries, and museums began to make their photograph collections available online, with increasingly higher resolutions and fewer barriers to download and reuse. Most colourisers choose their subjects out of personal interest, it seems, but their decisions are also based on the availability of digital objects that are free of watermarks and rights restrictions. Colourisers may also favour historical

photographs that resonate with current events, such as the Ukraine war, or with the choreographed events that often typify contemporary engagements with the past, such as the release of history-themed films or the timing of anniversary commemorations, like the discovery of Tutankhamun's tomb.

Not only has the digitisation of historical photographs made them more visible and accessible over the past fifteen years. It has also amplified the evidentiary interpretation of photography, whereby the perceived value of photographs is as information sources rather than historical objects in their own right. Digitisation has perpetuated content-focused approaches inherited from past practices, at the very point when scholarly work on photographs emphasised their materiality and malleable meanings as social objects. Digitisation has also had a neutralising effect on photographs, rendering them strictly two-dimensional and flattening them into similar tonalities and even shapes.

Moreover, the large-scale digitisation of historical photographs, and the contemporaneous shift to digital photography, have tended to downplay asymmetrical relationships and cultural differences. If all photographs are the same – so many pixels on so many screens – surely everything one can do to them, and with them, is the same, too? Yet asymmetries are inherent to the medium and its archives. As Temi Odumosu (2020) has pointed out, digitisation projects have presumed that open access is desirable, without paying due attention to the ways in which it reproduces the colonial projects of enslavement, occupation, oppression, and extraction. She calls for the development of an 'ethics of care' in the digital commons, around textual content, metadata, viewership, and visibility. I would add that such ethics should extend to greater institutional transparency around digitisation choices and standards and a code of archival practice in relation to digital colourisation, too.

Photography became more visible in the digital sphere even as its histories and techniques were forgotten elsewhere, for with the generational change to the digital, a photographic *habitus* changed as well. The entwined rise of phone cameras, social media, and the internet means that people born from the late 1990s onwards may have no experience of any photographic technology that was not digital. Lack of familiarity with analogue photography, and especially the history of colour in photography, is a factor in the public embrace of digital colourisation and in its marketing by many colourisers. That history is more complex than the binary of colour *versus* black-and-white implies (Geimer 2016; Lehmann 2015). Proponents of digital colourisation capitalise on the widespread misconception that greyscale was a

technological failure and that colour photographs and film were always preferred. Another misconception in digital colourisation is that the computerised process can 'read' colour information 'concealed' in monochrome images, bringing it 'back' from wherever it has gone.⁴ Obviously, it cannot, for such information is not there and never was.

From the beginnings of negative-based photography in the nineteenth century, white writers commented on its unsettling (to them) reversal of light tones for dark, especially for human portraits (Grigsby 2011; Sheehan 2020). The supposed difficulty of photographing dark skin was a trope of racist humour. Bias was built into photographic technology in the US and Europe, from black-and-white negative emulsions that favoured light complexions to the 'Shirley card' that Kodak later distributed to print labs for calibrating skin tones in colour photography, using a white woman as its model (Willis 2020). For black-and-white prints, adept photographers knew how to adjust exposure times in the darkroom to bring out the best effect for any portrait sitter's skin tone, unless intentional distortion was the aim – as Grigsby (2011) observes for the Richard Avedon portrait of William Casby in Barthes' *Camera Lucida*, overexposed to elaborate his dark skin at the expense of his near-invisible white hair. As I suggested in my opening example (Figure 1), the *carte de visite* of Isaac and Rosa may also have used overexposure; his white collar and tie and her white socks lack textural detail.

All skin colours in monochrome photographs are made up of shades of grey. They level out differences in skin colour, confounding the emphasis on tones of white, pink, tan, and brown that are assumed to mark racial identity. Digital colourisation seeks to restore those differences, and thus to render race more immediate and legible to contemporary viewers. However, without accounting for the historical circumstances in which photographs were made and used, colourisation reaffirms the white superiority built into an entire system of photography and now into its digitisation, too. This operates in several ways, from the content of archives to the settings used for digitising photographs, to the prioritisation of glass negatives for digitisation, whether or not they were ever printed. Reversed to make digital 'prints' for online use, they appear onscreen without the darkroom intervention that printing required, yielding sharper, deeper contrasts. Few interfaces specify the original of the digital surrogate we see on screen or explain the potential implications to their users. Digital times and spaces compound the historical contingencies and biases inherent in many photographic archives, including biases that work in favour of whiteness and all it represents.

DIGITAL COLOURISATION AND THE ARCHIVES OF WHITENESS

Because of the entwined histories of race, photography, and digitisation, unmarked whiteness has dominated the digital colourisation of both film and still photography. For film, Allison has argued that Jackson's *They Shall Not Grow Old* 'restores a vision of white hegemony to popular memory, rather than restoring the archival footage to its original state' (2022, 1263). For still photography, I have made a similar point for the digital colourisation of a glass copy negative showing Howard Carter and an unidentified Egyptian colleague at work in the tomb of Tutankhamun in 1925 (Riggs 2021, 398). Not only does the lighting contrast accentuate Carter's pale skin over the Egyptian man's darker tones (compounded by the copying process), but the photograph would never have been taken with their positions – white Englishman seated on chair, Egyptian man crouched in his shadow – reversed. White hegemony prevails.

In her phenomenological analysis of whiteness, Sara Ahmed (2007, 150) characterises it as 'an ongoing and unfinished history, which orientates bodies in specific directions, affecting how they "take up" space'. Bodies take up space online as well, not only when they appear in photographs, but – and as importantly – when they engage in conversations around those photographs. Occasionally, a Subreddit poster will request feedback on their colourisation, leading to technical discussions about layers, brushwork (in Photoshop), and hair and skin treatments in particular. In one exchange, a poster wondered if it was normal to use substantially fewer colour layers for Black skin than for white, after colourising a photograph with an African-American subject for the first time. Operating in a social context that equates skin tones and race, and that values convincing-looking, full-spectrum colour above all else, digital colourisation cannot help but run up against questions of racial identity. But the racial identity most at stake is not necessarily that of the subjects. It is that of the colourisers, too, and it consistently aligns with whiteness.

While digitisation has expanded the repertoire of photographic material in public domains, it has also replicated a canon in which white experiences stand for the universal, while the experiences of people of colour are specific to them, becoming of general interest only in relation to their racialised identities in restricted spheres. Digital colourisers make further selections from this material, based on commissions or personal interest: Sébastien de Oliveira (@sebcolorisation, 41.1 K followers on Instagram) likes 1930s–1950s 'Americana'; a

Qatar-based account called @royaltyincolour (22.3 K followers on Instagram) goes for Windsors, Romanovs, and Hapsburgs; while Mads Madsen (@madsmadsen.ch, 12.4 K followers on Instagram, no longer active) preferred the US Civil War, as did Loughrey (Chapman 2018). Some colourisers acquire and scan their own old photographs, but most access digitised photographs in the public domain. The Library of Congress is a popular source, as is Wikimedia Commons. Their reliance on the digital surrogates of familiar photographs or kinds of photographs (portraits, documentary, military) means that layers of photographic canonisation are already in place before colourisers make a selection.

Even so, given the vast number and variety of photographs taken in the nineteenth and twentieth centuries, it is striking how limited the chosen themes and images of colourisers are, as well as their clear US and UK focus. For colourisers who try to earn a living from this work, the American market is significant: thus Jordan Lloyd's ColorGraph studio uses American spelling even as it emphasises its English location, while Brazilian colouriser Marina Amaral has done her most high-profile work on US and UK subjects. Both Lloyd and Amaral have colourised Herbert Ponting photographs from Scott's *Terra Nova* expedition to the South Pole and portraits of Abraham Lincoln. US Civil War images are a perennial favourite for colourisers, reflecting that conflict's ongoing role in American identities, 'Lost Cause' mythology, and the visualisation of racial justice – or absence thereof. Other common colourising subjects include American and British celebrities (Oscar Wilde, Charles Darwin, Mark Twain, Frederick Douglass, Queen Victoria); Depression-era photographs by Dorothy Lange, Jack Delano, and others; and military-themed photographs from the First and Second World Wars, especially from the Allied side.

Out of 88 photographs posted in April 2024 on the r/Colorization Subreddit, the breakdown by subject is as follows:

- 16 photographs of white actresses (1930s–1980s)
- 14 photographs of white women and girls (including 3 identified as royalty)
- 12 photographs related to World War 2, with white male subjects
- 6 photographs related to World War 1, with white male subjects
- 5 other military-themed photographs, with white male subjects
- 5 Farm Security Administration (FSA) photographs
- 3 photographs of buildings with no people present
- 3 photographs of street scenes with people present

White men and women were by far the most numerous subjects for colourisation. The only people of colour posted to the thread in April 2024 were boxer Mohammed Ali, in a video, and a colourised Jack Delano FSA photograph of an African-American family working in a farm field. Only 3 of the 88 colourised photographs were from outside the US or western Europe (from Turkey, posted by a user with a Turkish name).

In multiple English, Italian, and French language searches for colourised photographs, made from the UK, US, and Italy in the course of this research, the top results – dozens at a time – featured human subjects in the images, almost all of whom were, or appeared to be, racialised as white in the colourised results. Dealing with skin tones is something colourisers must confront but rarely speak about in formal public forums. The Irish colouriser Matt Loughrey, who was admired for his work on US Civil War portraits (chiefly white officers from both sides of the conflict), characterised his approach to faces as ‘realism’ and his process as ‘proprietary,’ before the S-21 controversy. Looking at the work of colourisers like Loughrey, Madsen, and Mario Unger (@ungermario, 7K+ followers on Instagram) shows that they have lavished attention on white skins, bringing out rosy tones, freckles, moles, spots, skin tags, lines of age, or wounds in details that will have required hours of time, amplification, and visual scrutiny of the skin surface in the image (Figure 2). Unger claims to have spent 3000 hours colourising 102 photographs, of which 100 depict white subjects. Two show African-American musicians Al Grey and Louis Armstrong (the former alone, the latter with Grace Kelly); one colourises Gordon Parks’ *American Gothic*, a painted portrait of his

fellow African-American, Ella Watson, taken in Washington D.C. in 1942.⁵

Where skilled colourisers have turned their attention to photographic subjects racialised as Black or brown, the results usually display more uniform skin tones and awkward contrast. In some cases, this is an artefact of the historical photograph, depending on how darker skin responded to lighting conditions and emulsions designed for fairer skin, as well as how the photograph has been digitised. Colourisers either are not aware of the histories of technology, racialisation, and photography, or struggle to articulate them. In 2019, Marina Amaral posted a set of 1860s *cartes de visite* of African-Brazilians (enslaved and free), heading one post, ‘a part of Brazilian history that I am not proud to show’: its history of slavery, from which she distances herself.⁶ On social media, Amaral received overwhelmingly positive reactions, including from a few individuals who identified as descendants of enslaved people. She emphasised that these images were not for sale, as most of her images are; instead, they appear on her website as an ‘educational resource’. Those reading to the very end of the relevant webpage will find a technical-sounding (but not very technical) explanation of what she calls ‘skin “shine”’, which she attributes to the albumen print and *cartes de visite* format. There is no way to remove this, she says, and her results ‘are not necessarily 100% accurate given the limitations I had throughout the process’.⁷ By implication, dark skin was a problem to photograph and is a problem to colourise.

Amaral has a deservedly high reputation for creating convincing colour effects in her work, and her subjects

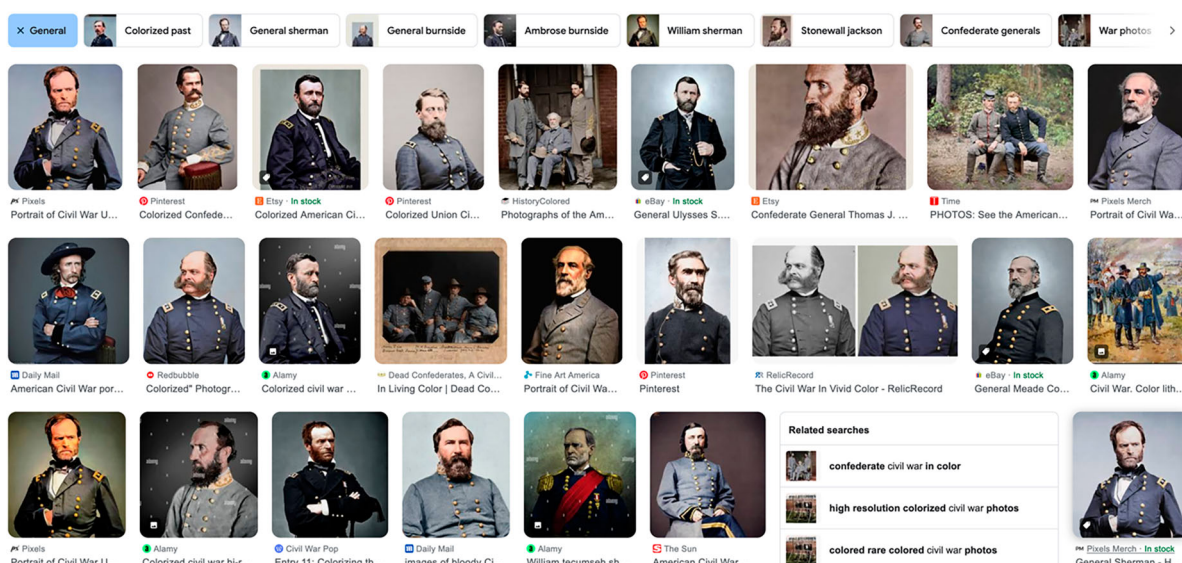


FIGURE 2. Screenshot from Google Images search for ‘general civil war colourised’, on 14 July 2024. Portraits of US Civil War military officers, from both sides of the conflict, have been a consistent favourite with colourisers in the US and Europe.

are much more varied in part because of the opportunities and commissions generated by her success. But consciously or otherwise, the muddy, indistinct, overly uniform, or 'shiny' results that colourisation often yields for darker skin tones reflect not only technical artefacts in the old photographs and their digital surrogates, but contemporary regimes of value about whose skin deserves the labour, research, and care that colourisers say they bring to their work. Colourisation can reveal racialised assumptions made about the subjects of photographs, too: many of the colourised versions of Dorothea Lange's 'Migrant Mother' in circulation fail to identify Florence Owen Jones as the subject or indicate that she was Native American (Stein 2020).⁸ Would that identity have changed the colourisation choices made for her hair, skin, and eyes and those of her children, usually shown as pale blond and blue-eyed?

I have resisted making my own assumptions about the identities of the colourisers whose work I have looked at in the course of this research. Of those with personal websites or sizeable (10k+) social media followings, none have identified themselves as belonging to a racial or ethnic minority; many appear, from their online profiles, to be racialised as white. White identities also regularly emerge from the profiles or comments of online posters who share colourised photographs. But the colourisers are only one part of the collective in which their products operate. Their identities in many ways matter less than the fact that the colourised photographs that gain the most comments and traction online and in the media revisit historical events, themes, and individuals that are densely woven into whiteness and histories of slavery, colonialism, and empire, in which I include both world wars. This is true whether or not white people are present in the image. Indeed, the colourisation of ethnographic 'type' photographs, orchestrated studio portraits (like Edward Curtis's Native American images), and travel-themed stereographs is an attempt to insert people of colour into a visual canon that intentionally excluded them or, in projects like Curtis's, represented them as timeless Others whose time was running out. The colourisation of Black musicians and athletes fits white stereotypes of African-Americans, too. Colourising such images does nothing to destabilise the system of visual signs and socialised seeing that made whiteness invisible as a racial marker by making Black and brown bodies visible in specific and restricted ways. Instead, it reinforces the system by further multiplying these images in the digital sphere.

In the words of Shawn Michelle Smith (2013, 14), 'whiteness emerges as a racial category most forcefully when one sees what is ordinarily obscured'. The

colourised photographs presented under an ill-defined rubric of 'history' obscure through their ordinariness. The most shared and liked, or offered for sale as prints, favour patriotic themes (carving Mount Rushmore, making the Statue of Liberty), heroic personalities (Churchill, Lincoln, Howard Carter), images with retrospective meaning (Anne Frank before the war, anything related to the Titanic), or those that lend themselves to what we might call feel-good narratives about Allied victories (the Iwo Jima flag), women's rights (Suffragettes), or racial equality (Black abolitionists, Civil Rights marches, school desegregation). Brutal images of battlefields, Nazi death camps, and police prisoners have also been colourised. I suggest that they work along similar lines, calling on memories associated with triumph, resolution, moral rightness – and a white world in which people of colour and ethnic minorities may sometimes be included, but are rarely centred or shown on their own terms, for their own sake.

Such is the case with another Dorothea Lange photograph from the Library of Congress, taken in North Carolina in 1939 (Figure 3). It centres a white man in the door of his brother's rural store, while five African-American men sit on the porch with cold drinks purchased there. Several colourised versions of this Library of Congress photograph have circulated; for her colourisation of another frame in the sequence, Amaral emphasises the deep research she did on the colours of the advertising signs.⁹ So does Lloyd, whose website narrates the photograph as a scene of interracial harmony: 'In a deeply segregated America, it is refreshing to see both black and white Americans enjoying each other's company, no doubt a product of the Baynes brothers' service in the US armed services, where they both served with black American soldiers in World War 1'.¹⁰ Lloyd's text ignores the fact that the American military was segregated, and his account of the Baynes family stops short of mentioning that they had been slaveowners.¹¹ This is history couched for white comfort.

Some photographs chosen for colourisation can be related to concerns for social justice, for instance by drawing attention to 1960s Civil Rights struggles in the United States. But since the movement was well-documented in both monochrome and colour, it is unclear what purpose colourisation serves unless it to make skin tones, equated to 'race', more easily legible – that is, more obvious – for certain contemporary viewers, in certain contexts. Indeed, Abel (2014) draws attention to the irradiating qualities of light, shine, and texture on Black skin in black-and-white photographs of 1960s protests, which she reads as luminous and affective assertions of resilient Black identities. Sixty years later, however, the extensive media coverage and online



FIGURE 3. Dorothea Lange. 'Country store on dirt road. Sunday afternoon.' Taken in Gordonton, North Carolina, August 1939 on behalf of the Farm Security Administration. Library of Congress LC-DIG-fsa-8b33922. Digitised from original 4 x 5 inch nitrate negative. Public Domain.

sharing of colourised Civil Rights images generated a conspiracy-theory rumour that original colour photographs of the struggle had been turned *into* black-and-white images in order to make them less prominent in school textbooks.¹²

Some of that media coverage came from Jordan Lloyd's colourisation of several Civil Rights-era photographs in the wake of the 2020 Black Lives Matter protests, including images from the 1963 March on Washington (a Library of Congress source, again). As Amaral did for her colourised African-Brazilian *cartes de visite*, Lloyd emphasised that his colourised Civil Rights images are free to download and are for educational value – a 'supplement, not a substitute' to history, meant to make each photo 'feel real, more visceral'.¹³ Also like Amaral, he commented on skin colour for this project in a way he has not done for others: 'Skin is a complex topic. It is also what we're naturally drawn to when we look at photographs for the first time'. But searching the photographic surface to recognise and evaluate the surface of a human body is what photographic images helped teach viewers to do, in a racialised vision that digital colourisation now cannot escape.

Another feature of digital colourisation is the gendered skew of both colourisers and the subjects of colourised

photographs. Amaral is a significant exception to male dominance in the colourising field: it is an imprecise sample, but only around 20 of 120 signatories to the Colorizer's Code of Conduct have female names. The range of photographs colourised by Amaral and other women, such as Angelina Karpunina (@color_byangelina, 17.9 K followers on Instagram) and Sanna Dullaway (@sannadullaway, 17.9 K followers on Instagram), includes far more women as subjects, the majority racialised as white. Amaral's most recent book project, her third with television broadcaster Dan Jones, takes women as its universalised subject (Amaral and Jones 2022). Nonetheless, search results, Subreddits, and the social media feeds of many colourisers show white women in traditional family roles and occupations, or else in pin-up mode, whether unidentified models or well-known white actresses like Marilyn Monroe and Audrey Hepburn. The more coy, glamorous, or flirtatious the pose, the better. Colourised studio portraits of young girls, but not boys, are also popular.

It is in the nature of the medium that photographs can be reinscribed with different meanings in different contexts, an 'unfettering' that has enabled its astonishing diffusion in our world (Henning 2018). Reengagements with historical photographs can be liberatory, but that requires more than colourisation and its monetisation.

By treating studio portraits; survey, documentary, and expedition photos; and photojournalism as equal and equally neutral, and the camera lens as an innocent eye, colourisers occlude the historical situatedness of the photograph itself – even as they invoke a circumscribed notion of historical research to market their work. In the digital sphere, caring about the past is a present-focused activity based on sharing, liking, and commenting on colourised photographs, while colourisation refigures the digital as an artisanal pursuit, as if it were part of the past itself.

COMMERCE, CRAFT, AND CARE

Amaral, Lloyd, and several other colourisers sell colourised products and colourisation services; whatever the source of the monochrome photograph, colourisation allows them to assert their own copyright in it. In a vast and varied online marketplace, colourisers often describe their work as artistry or craftsmanship, masking machine learning with the prestige of human creation. Amaral, for instance, identifies herself as an artist and colourisation as a creative medium requiring both extensive research and the regulation of her own emotions, linked to the emotions she activates in her colourised images; she has also written and spoken about being autistic.¹⁴ British ‘visual historian’ Jordan Lloyd also markets digital colourisation as a craft that involves both physical and emotional labour. The brand is soon to be retired, but his Dynamichrome website described the colourisation process as ‘simultaneously meditative and overwhelming’.¹⁵ Both Dynamichrome and his current ColorGraph venture use a simplified (and simplistic) history of photography to link digital colourisation to early hand-painting of photographs. Colourisers are ‘digital artisans’ working in ‘a craft tradition’ almost as old as photography itself. They work ‘to overcome’ the ‘limitations’ of monochrome photography, which were ‘technological and financial’.¹⁶

The language of craftsmanship and authenticity obscures the data mining on which digital colourisation relies and transmutes computerised, partly automated processes into a more recognisably ‘human’ effort. Such a framing exemplifies the ‘commodified authentic’ that emerged already in late nineteenth and early twentieth century discourse as a move to purify a material world perceived as sullied by industrialisation, automation, and modernity (Outka 2008). In globalised late capitalism, evocations of craft, tradition, simplicity, and authenticity merchandise everything from cheese to yoga. Authenticity is its own aesthetic, underpinned by the connections it claims to have to the past, which in turn allow the consumer to access that past themselves. Hence

the ColorGraph site explains that the ‘skilled digital artisan [...] draw[s] on meticulous historical research and references to ensure that moment in time is recaptured in colour without the bias of a contemporary gaze’.¹⁷ With an eye on a changing market, ColorGraph also offers a Platinum Series in monochrome, each photograph ‘restored and remastered’ as a ‘museum-grade fine art print, hand-printed in England and individually finished with a monogram emboss’.¹⁸ A certificate of authenticity is included.

Digital colourisation and digital restoration prove to be complementary. Restoration, as colourisers use the term, involves substantial changes to the appearance of a photographic image, by removing signs of wear or damage and editing greyscale or full-colour tones. This goes far beyond the concept of restoration in museum and heritage practice, but it makes use of similar technologies to colourisation while diversifying the products and services available. The introduction of DeOldify and other open source, AI-powered models means that colourisation itself no longer requires specialist software or computing knowledge, which has changed the possibilities for monetising it. Thus Lloyd has branched into restoration, a history-themed blog and newsletter, and podcasting, while Amaral’s profile is such that she attracts commissions and partnerships. Her trademark use of pastel tones, evocative of colour lithograph postcards, also stands up well against the more jarring hues of AI-trained colours. They will no doubt continue to adapt, but one feature of DeOldify and other AI colourisers is that they yield brighter, block-like tones and awkward transitions, where parts of the digitised original are out of focus or in shadow. One impact of the diffusion of AI colourisers – which now feature on popular family history websites Ancestry and MyHeritage – may be greater awareness of how inadequate such automated colourisation is, not only for its disappointing visual effects but also for its failure to generate the level of emotional connection that colourisers had been able to enjoy through their embrace of craft.

DISCUSSION

Colourised photographs – and, importantly, the fact of their having been colourised – generate public engagement on the basis that they ‘bring history to life’. This appears to be a way of saying that they make past events more comprehensible and past individuals easier to identify with, without asking who does the identifying, and with whom. Media coverage, bolstered by commissions from museums and archive holders, further amplifies the idea that colourisation enhances

feelings of empathy and enables viewers direct access to the past, solely by virtue of seeing images in colour ('history as they saw it'). The multiple biases and assumptions at work here are also unquestioned, namely that there is a 'universal' (coded white), able-sighted spectator and that cameras were omnipresent and objective. Among hundreds of glowing Amazon reviews for Amaral and Jones' first book, *The Colour of Time* (2018), only a purchaser in India pointed to its 'British bias', listing examples of imperial violence not mentioned in the text. 'Cherry-picked, western-centric history that paints an inaccurate picture' – but the reviewer gives five stars for the colourisation itself.

Comments on social media and Subreddits do not shirk away from affective responses to the images, which are almost always characterised as more moving when in colour. Many comments concern the colourisation itself, usually to praise it, but with some criticism over colour choices (uniforms, eye colour) or use of AI. Comments often draw comparisons between the subject and Hollywood actors, or delve into assertions about historical facts, especially for Civil War and World War 2 images. But the posts that gain the most comments strike an emotional chord with the posters, who imagine what came after the photograph was taken, using retrospective knowledge and often in response to details included with the post. On r/ColorizedHistory, the antislavery photograph of Isaac and Rosa led some commenters to identify with the pale-skinned girl and their own mixed-race identity. Others read emotions into the children's expressions, or expressed the emotional impact of viewing it; since that post included a long text about the children and the photograph (copied without credit from Mitchell 2008), many posters commented on race and racialisation more generally, and on sexual violence against enslaved women. Another photograph that generated extensive comments, with 2400 likes, was an Amaral colourisation showing a white Titanic survivor and her daughter shortly after their rescue. Again, posters commented on the emotions they experienced while viewing the image, sometimes asserting that it was more powerful for seeming to be almost of our own time, despite the clearly Edwardian dress of the subjects. As with Isaac and (especially) Rosa, posters also imagined the subjects in the Titanic photograph as emotional beings, experiencing states of sadness, trauma, and loss.

It is a broad-brush impression, but such sentiments seem to be provoked with photographs of women and girls more than those of men, and by white or (Rosa again) light-skinned subjects. Contemporary news events can shape reactions, too, thus a Madsen

colourisation depicting a Polish woman holding her child amid the rubble of Warsaw in September 1939 inspired comparisons to Russia's invasion of Ukraine; some women posters identified themselves as mothers and thus with the woman in the photograph.

Colourised photographs of men do not prompt such personal identifications, although young men in uniform from the Civil War or World War 1 may inspire commenters to wonder what happened to the individuals or draw attention to their ignorance of the future. For their book on World Wars 1 and 2, Amaral and Jones (2020) encourage readers to take its content as a warning, with the era paralleling divisions in contemporary society. It is unclear how viewing photographs, in monochrome or in colour, can shape choices that will have real-world effects, however absorbing readers and reviewers may find Amaral's work. Brown and Phu (2014, 4) observed a tendency in recent scholarship on photography to try to turn affective responses of empathy, shame, or pity into 'more politically useful feelings'. But a decade on from their *Feeling Photography* collection, the gap between any such aspiration and the media landscape in which historical photographs, and colourised photographs in particular, now thrive is substantial.

That colourised photographs have a powerful appeal is undeniable and inescapable. Their visual refrain is matched by a verbal refrain that they 'bring history to life'. Journalists, picture editors, and many museums and archives seem convinced that the digital addition of colour to photographs catches audience attention in ways that monochrome originals cannot. As I argued in the first part of this essay, lacunae in photographic knowledge together with a rush to public-domain digitisation of photograph collections helped create the conditions for digital colourisation to flourish in the social media landscape. Its popularity is also a function of monetisation, from AI software to Google search functions. Museums, archives, and heritage organisations that have commissioned colourisation of their collections may have been naïve in their understanding of photography and in assuming they could keep control of the colourised results, which were in fact absorbed rapidly into commercial picture libraries.

Visual anthropologist Elizabeth Edwards recently observed that '[t]he practices of colourisation, and resistance to colourisation, tell us much about the intersection of historical imagination and photographs, and what the digital does to history' (2022, 119). As I have demonstrated in this article, my own 'resistance to colourisation' is based on how it organises vision on gendered and racialised lines, naturalising whiteness in

the process. The remarkably positive reception of digitally colourised photographs is a sobering reminder of how overlooked and unquestioned this fundamental aspect of photographic history still is, after decades of scholarship and curatorial practices attempting to describe and challenge it.

CONCLUSION

I want to conclude by returning to my departure point: digital colourisation operates at the intersection of a visual economy and an affective economy permeated by white sight. Whiteness is made and remade through the recirculation of historical photographs that are spectacularised through the addition of colour, reengaging archives of racialised technologies and their indexical associations between skin colour and identity. In addition to its visual concerns, digital colourisation contributes to the work emotions do in creating and sustaining imaginaries of self and Other. Emotions, says Ahmed (2004), move between bodies and signs. They exist in relation to others within a collective, like photographs, and also like photographs, ‘emotions *do things* ... they align individuals with communities – or bodily space with social space – through the very intensity of their attachments’ (Ahmed 2004, 219). The primary emotion that attaches to digitally colourised photographs is empathy, but this is empathy as a practice of systemic whiteness. A fleeting impulse contained by innocence. Purely retrojective, like the colour in the photographs, it expects no action in the present apart from maintaining the status quo. Needless to say, if colour photographs of human suffering were enough to generate compassion and spur action, regardless of the racialisation of suffering subjects, we would live in a very different world.

Temi Odumosu has asked what an ethics of care in the digitised cultural commons could look like, in particular where an image is ‘an enduring photographic impression of asymmetrical contact between coloniser and colonised’ (Odumosu 2020, S292). An ethics of genuine care must confront those asymmetries and strike against white sight (Mirzoeff 2023). The popularity of colourised photographs raises fundamental questions about the role of images in public understandings of history, which will become more urgent as generative AI produces ‘deepfake’ photographs based on what it has learned online. Digital colourisation has reinforced racialised viewing practices, affirming the structural privileges of whiteness (and of patriarchy, too). It affirms a cultural archive of images based on whiteness, and in doing so,

gives white sight more ways to recognise those whose otherness must be rendered as essential, external, and above all visible in order for whiteness to thrive. By reducing photographs to unmediated images, whose value is said to lie in the emotions they might elicit in an imagined ‘universal’ viewer, digital colourisation is not a form of caring for the past. It is an abnegation of care – for the past, for evidence-based history, and for racial justice.

Notes

- [1] See <https://www.loc.gov/resource/ppmsca.11092/>. Versions are also digitised at NYPL Digital Collections (<https://digitalcollections.nypl.org/items/60a5d6b0-9980-0139-1acb-0242ac110003>) and the National Gallery of Art (<https://www.nga.gov/collection/art-object-page.216284.html>).
- [2] See <https://deoldify.ai/> and <https://github.com/jantic/DeOldify>.
- [3] See <https://www.apollo-magazine.com/tutankhamum-centenary-tomb-christina-riggs/> (colourisation acknowledgement added to online caption); and see <https://shop.royalmail.com/special-stamp-issues/tutankhamun> for the Royal Mail stamps, with brochure.
- [4] DeOldify’s homepage uses the tagline ‘Bringing color back since 2018’ (<https://deoldify.ai/>). Writing about the company’s Deep Learning Model for video colourisation, an unidentified contributor contends, ‘My best guess is that the models are learning some interesting rules about how to colorise based on subtle cues present in the black and white images that I certainly wouldn’t expect to exist’: <https://github.com/jantic/DeOldify#about-deoldify>. In a 2021 interview, Loughrey stated that ‘there is a direct relationship between monochromatic shades and their corresponding hues in the red, green, and blue spectrum’: <https://www.militaryimagesmagazine-digital.com/2021/06/02/on-the-art-science-and-technology-behind-the-modern-coloring-of-images-qa-with-matt-loughrey-of-my-colorful-past/>.
- [5] <https://www.boredpanda.com/old-pictures-famous-people-colored-mario-unger/>
- [6] See <https://threadreaderapp.com/thread/1117057986709610496.html>, with similar posts on her other social media channels around the same time.
- [7] See <https://marinamaral.com/in-color-slavery-in-brazil-1869/>.
- [8] Some examples: <https://josantonioipa.artstation.com/projects/4b6ld8>, <https://twitter.com/jecinci/status/1633446406231928833>, <http://www.datadeluge.com/2011/10/migrant-mother-in-imagined-colour.html>, <https://github.com/jantic/DeOldify#about-deoldify>. Amaral has colourised two of Lange’s photographs from the sequence: <http://www.gethistory.co.uk/news/dan-jones-and-marina-amaral-in-conversation> and <https://www.flickr.com/photos/132844921@N08/33065214143/in/photostream/>.
- [9] Amaral’s subscriber-only post about her colourised version incorporates Lange’s field notes as if they are her own words: <https://marinaamaral.substack.com/p/country-store-in-gordonton-1939-and>.
- [10] <https://unseenhistories.store/collections/colorgraph-co/products/country-store-by-jordan-j-loyd-1939>.
- [11] <https://theforgottensouth.com/gordonton-nc-dorothea-lange-store-photo/> (with another colourised version).
- [12] See for instance <https://eu.usatoday.com/story/news/factcheck/2020/06/20/fact-check-most-civil-rights-era-images-werent-made-color/3210472001/>
- [13] See <https://www.bbc.com/news/in-pictures-55619618>.
- [14] See <https://marinaamaral.substack.com/p/being-normal-is-overrated> (published 2 April 2024), and the Q&A for the 2022 ‘The Color of Flight’ project with the United Nations Refugee Agency (UNHCR), <https://www.unhcr.org/spotlight/2022/06/iconic-refugee-photos-colourized/>.

- [15] See <https://dynamicchrome.com/process>. Paperwork filed with Companies House in January 2024 proposes to close the business operating as Dynamichrome.
- [16] <https://unseenhistories.store/pages/about-us>.
- [17] <https://unseenhistories.store/pages/colorgraph-co>, under 'Stage 3 - Research and colorization'
- [18] <https://unseenhistories.store/collections/platinum-series>

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