Ghostly Encounters on Google: Spirit Photography, Reverse Image Search and Urban Critique in Baltimore

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Figure 1. Memories of the Past, ca. 1880. Photograph.
https://www.loc.gov/item/2002712571/.

Some say that phantoms haunt those shadowy streets,
And mingle freely there with sparse mankind;
And tell of ancient woes and black defeats,
And murmur mysteries in the grave enshrined:
But others think them visions of illusion,
Or even men gone far in self-confusion;
No man there being wholly sane in mind.

City of Dreadful Night VII(1-7)

Abstract: In 1866, Alfred Russell Wallace proclaimed a "new branch of anthropology" premised on the Spiritualist movement that was then exploding in popularity in England. For Wallace, that anthropology would revolve around a growing body of highly disputed evidence of life after death. While séances were one major site for the evidence of spirits, other technologies were also important to the new religion, including spirit photography, where ghostly figures or more amorphous, ectoplasmic emanations would appear in photographs next to (living) humans sitting for their portraits. Although these photographs brought solace to those missing their loved ones, they were also windows onto a future utopia; after all, the afterlife was a place where humans would continue to

grow and develop into more perfect beings, beings who had come back to help guide their still living compatriots. While these photos appear to us today to be clumsy double exposures, they suggest—along with their twentieth-century counterparts in Dadaist montage—a source of social critique. And, indeed, Spiritualism was readily embraced by social progressives of the day for just these reasons. Interpellating other images onto a photograph both breaks the illusion of objectivity in realist photography which is grounded in the indexicality of the photograph (first discussed by Charles Saunders Peirce) (Peirce 1894: 4). In so doing, spirit photography anticipates the challenges digitization, manipulation and algorithmically generated images raise to the indexical truth-value of the image.[1] In this essay, I extend Wallace's "new anthropology" to urban applications of reverse image search, where search engines apply a combination of indexed images, neural networks and machine learning in order to identify the same or similar images across huge databases. Although mostly utilized for locating copyright infringement, uncovering catfishing or identifying locations, reverse image search also suggests a series of alternative "spirits" to photos of urban spaces. In Baltimore, where my research has concentrated on issues of urban gentrification and abandonment, reverse image searches of Baltimore's spaces reveal other possibilities—alternatives to urban divestment. For example, a search based on a photo of a boarded-up block of stores in West Baltimore generates images of bustling mercantile districts in cities all over the world. Each of these images, in turn, is an argument against the neoliberal algebra that has laid waste to cities and compounded poverty and segregation. By overlaying images of Baltimore streets and facades with these ghosts of other urban possibilities, I attempt to summon an anthropology of critical future possibilities. In so doing, I identify another role for digital technologies: one that conjures absent possibilities into urban presents through regimes of Big Data that would otherwise be used for surveillance. The end of the essay finds me revisiting Wallace's "new branch of anthropology," not to revive his call for the study of ghosts, but for our work to include spirits of the future in our critiques of present inequality.

Keywords: spiritualism; spirit photography; algorithm; reverse image search; anthropology

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Haunted Cities, Spectral Anthropologies

As I write this, restaurants in Baltimore are again preparing to shut down and, with them, the etiolated trickle of foot traffic that is the merest echo of pre-pandemic life shall once again cease. The COVID-19 pandemic has confronted anthropologists of the city with haunted streets, streets that seem like a confirmation of media representations of Baltimore as a dying city. Of course, there are other hauntings as well in the form of social injustice, police violence, environmental racism, homelessness and food apartheid that are still readily visible even if foot traffic is down. These specters populate city streets even in an era of COVID. How do we make sense of them at a time when face-to-face fieldwork is an impossibility? Do we stop doing anthropology? Yet in the absence of presence, ghosts proliferate. And, indeed, 2020 has confronted anthropology with myriad ghosts: structural racism, colonialism, Anthropocene ruin, sexual abuse (Jobson 2020). The case for "letting anthropology burn," to mix metaphors, raises a pyre fueled by these uncomfortable ghosts, the imperialism and racism that haunt anthropology to this day.

But can there be more edifying hauntings? Avery Gordon locates her ghosts in the unresolved traumas of history--e.g., in the legacy of slavery and racism that still structures the inequalities of American cities today (Brown 2021; Gordon 2011). These are more, however, than memories--

instead, they make up the "return of the repressed" and place demands for justice upon the present. As Gordon explains,

> To my mind, the whole essence, if you can use that word, of a ghost is that it has a real presence and demands its due, demands our attention. Haunting and the appearance of specters or ghosts is one way, I tried to suggest, we're notified that what's been suppressed or concealed is very much alive and present, messing or interfering precisely with those always incomplete forms of containment and repression ceaselessly directed towards us. (Gordon 2011)

Although the pandemic may have emptied the streets of pedestrians, these apparitions remain in the space of the city itself. Each building, street, development project in Baltimore bears the ghosts of its inequity. As Tschumi writes in 1975, architecture is "always an expression of lack, of shortcoming, a noncompletion" (Tschumi 1075: 142). But if we broaden the focus to the building and its urban context, then the injustices of the past are clearly visible in the present. Here, the "noncompletion" is the promise of the "right to the city" itself--the right to lead a fulfilling life amidst urban complexity (Harvey 2013).

This, ultimately, is the city's signifying ghost: apparitions from the past gesture to wrongs that still need to be addressed. Baltimore's streets are strewn with its inequalities and injustices, each spirit tethered to place and to history should remind us of what yet needs to be done. Like other cities, Baltimore's elites may scheme over vast re-development projects that demolish neighborhoods and erect shiny monoliths to capital in their place, but that will never exorcise this shameful past. As Nagle concludes, "Ghosts and haunted ruins ensure that public space can never be programmed in comprehensive ways that simply affirm the power of the state and its neoliberal partners" (Nagle 2018).

Ghosts of the Smart City

Oppression and injustice are not the only specters haunting Baltimore. Even if once-lively streets appear deserted, cellular networks and wifi signals fill the streets with electromagnetic waves. "Architecture of Radio" is an app designed by Richard Vijgen to visualize the "infosphere" around us using a variety of network signals and open-source data on satellite and cell towers.
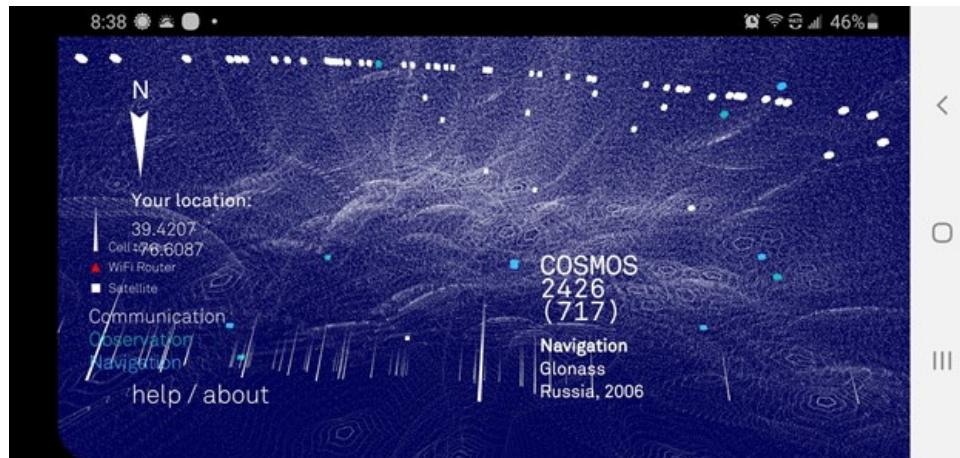
Figure 2. A screenshot from the author's phone of the "Architecture of Radio" app.

The image (Figure 2) depicts signals from outside my office window, and includes satellites (dots), cell towers (lines) and wifi routers. These signals swirl about me - lending new meaning to Whitman's "body electric." Yet they don't do so evenly.

The 21st century dreams of a smart city rest upon ubiquitous computing, a seamless infosphere connecting citizens to services and infrastructure. These are to "synergistically" work towards not only greater efficiencies, but, ultimately, new forms of organizing and new forms of creativity. Picon notes that "the smart city is meant to offer new collectivities to emerge, along the lines of organisations such as Wikipedia and OpenStreetMap that involve collaborations on a massive scale" (Picon 2015: 24). Like other communication technologies, smart cities are said to allow the emergence of a new, urban utopia, one accomplished through the grafting of largely invisible infrastructure to the architecture of the city (Starosielski 2015). Of course, this is not the way things have worked out in Baltimore. Wifi connectivity, for example, has been spotty at best, courtesy of the monopoly Comcast holds over internet access in the city. Despite some public wifi networks downtown, the bulk of publicly available wifi comes from hotels and restaurants--an inequality that has become glaringly obvious in an era of online education (see Figure 3).
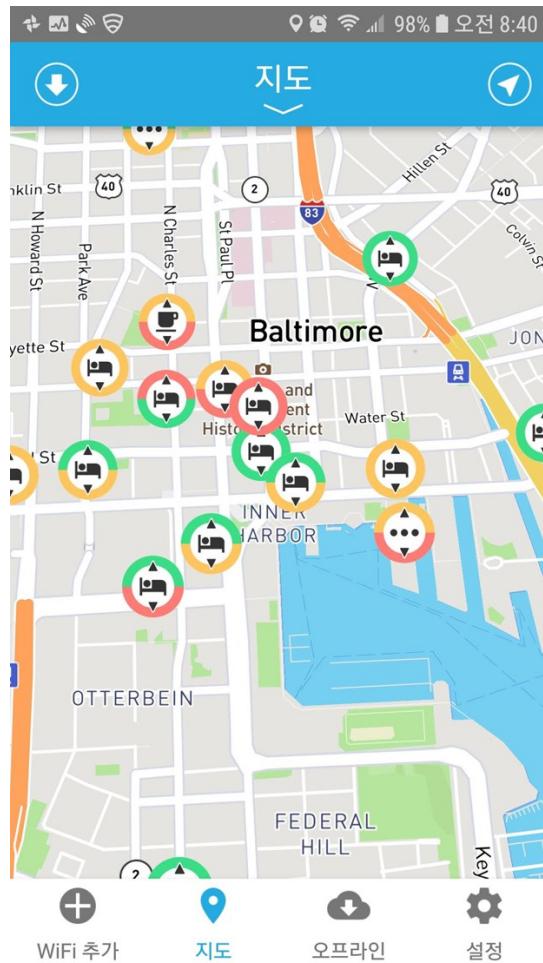

Figure 3. Screenshot by author of public wifi networks in Baltimore visualized through the "WifiFinder" app.

At a time when Baltimore schools have moved to online instruction, the failures to achieve connectivity have meant the abandonment of many of Baltimore's K-12 students. Without private connections, and unable to visit libraries or schools where limited connectivity may be available, many Baltimore students must make do with print materials or televised classes. Like the race- and class-based injustices that continue to haunt Baltimore, the smart city is haunted by its failures to democratize its infosphere; the distance between the present digital divide and the promises of a smart city continues despite promises of universal access.

Nevertheless, these haunts are not just intrusions of an obdurate past. They are simultaneously

futures pulling on the injustices of the present. When we see unequal development in Baltimore, it evokes not only the injustices of a "city as growth machine," but also conjures alternative futures where the city's residents finally achieve a "right to the city"--not only, in other words, a right to a livable city that, as Robert Park has written, a right to one that meets the "heart's desire" of its citizens (Park 1967: 3). Similarly, digital divides that limit the connectivity of parts of the city and consign residents to digital underdevelopment conjure up connectivity through its absence--through the injustice of disconnection. That is, each disconnection suggests latent connections that still need to be forged. This is the network logic of the city and its information infrastructures (Haythornthwaite 2005).

In this essay, I bring together both of these hauntings through an examination of Google's reverse image search--a content-based retrieval engine that algorithmically matches images you've uploaded to images the engine deems similar. Using photographs from field research in Baltimore, Maryland, I utilize reverse image search to discover not only the ghosts that haunt Baltimore's streets, but also to the ghosts of its future. And not just in Baltimore. The same images that connect to Baltimore's future reflexively evoke alternative histories and critical futures for anthropology and its investments in regimes of representation.

Looking at "ghosts" in this manner will take us beyond what many would consider to be ghosts. And, perhaps, take us beyond what many would consider to be photography or, rather, to the reduction of the truth claims of photography to its indexical function, claims that unravel in the era of digitization and search engines (Gunning 2008). For many Spiritualists, the "ghosts" that populated spirit photography in the 19th and early 20th centuries were not, in fact, ghosts. Yet, these adherents insisted, the images—people, indistinct blobs, smoke—came from ghosts. Similarly, the ghosts that speak to Baltimore's inequalities and to the contradictions of urban development and neoliberalism may not appear as specters, but their spectral touch is nevertheless present in the images below. Like Gunning (who is riffing off of Barthes and Bazin), the photograph's power lies in its capacity to exceed "the function of the sign" (Gunning 2008: 39).

Much of my recent scholarship has worked with networked media, the central idea being that the ethnographically intended media that we may produce does not stand by itself (whatever else we may hope and intend) (Collins and Durington 2015). Instead, the photos, videos and drawings we may produce are embedded in dense webs of representation that have historically been overdetermined by colonialism and neoliberalism. And more than this--in an age of networked media, the images we make are literally connected to other representations through other users, through tags, through keywords and through platforms (Collins et al 2013). We can see this (as many have) as a threat to the integrity of the discipline and to the intentionality of the anthropologist, or we can embrace these subterranean connections as "latencies" that can be "the potential or possible affective content of something better that takes place as part of what has become" (Anderson 2006: 700). Ultimately, "latencies" may take us to places that admit a Bergsonian "virtual multiplicity" that "serves to reveal other durations that beat to other rhythms, that differ in kind from mine" (Deleuze 1991: 32). Accordingly, conjuring both ghosts of the past and future, this essay suggests that a re-engagement with past latencies in anthropology may lead to new possibilities.

Anthropology in the Space of the Séance

Spiritualism, as a salon hobby and a bona fide religious movement, begins with the Fox sisters in New York and the "spirit rapping" they later confessed came from their precocious ability to loudly crack their toes. From there, Spiritualism grew in popularity, with the sisters (and many others) taking séances and other spiritualist practices abroad to England and Europe. By the late 19th century, millions of people counted themselves adherents to Spiritualism, and tens of millions more were exposed to it through media and popular culture (including Baltimore's own "Ouija

Board").

As many scholars have noted, this explosive growth in Spiritualism coincided (and overlapped) with a concomitant growth in anthropology. Growing middle-classes in North America and Europe cultivated a fascination with both the exotic other and the incorporeal other, and some of the same writers who would popularize anthropological ideas also engaged in middlebrow amusements like séances. George Eliot, for example, incorporated anthropological understandings of religion in her work--yet also famously attended an 1874 séance with Francis Galton and Charles Darwin's wife, Emma Darwin (Lecourt 2018). George Stocking, Peter Pels and others have discussed E.B. Tylor's ambivalent involvement with Spiritualism, one that saw him adamantly critical of the movement but, evidently, fascinated enough to undertake a period of field research in London (Stocking 1971; Pels 2003). As Pels notes, it is not too much to suggest that Tylor built up his own sense of what constituted anthropological proof against the backdrop of spiritualist claims he found dubious. Yet at the same time he played the skeptic, Tylor actually consulted with a medium when the British Post lost his "bewitched onions of Somerset" (Stocking 1971; Wingfield n.d.).

Finally, there were several, occasionally uncomfortable moments at the intersection of nineteenth century anthropology and Spiritualism, among them the supposedly Native American spirits that were often contacted during séances. Tylor, for example, was assured by the "Native American" spirit "Sunshine" that he would soon receive his onions (they were never found). Nevertheless, Tylor's experience was common, and the appropriation of putative Native American spirits into séances mirrored their similarly exotified appearance in anthropology: consigning people to the "savage slot" but also imbuing them with morality and ability over that of the "civilized."

> On the one hand, Spiritualists saw Native Americans as powerful, spiritual predecessors, evincing romantic attachment to an idea or imagined Indian that sometimes translated into unexamined cultural appropriation. On the other hand, some Spiritualists called for the protection of native lands and sovereignty, laboring to right the wrongs of white colonists while also salvaging the spiritual life of non-Indian Americans. (McGarry 2008: 66)

This seems very close to the ethically fraught work of Franklin Hamilton Cushing, whose sympathies for Zuni peoples have, in hindsight, been quite eclipsed by his shameless appropriation and self-aggrandizement at their expense (Hughte 1995). If the anthropological Other has been important in the constitution of Western selves, then it is no surprise that the Spiritualist Other assumes similar importance.

Legacies of Wallace

In 1866, Alfred Russel Wallace wrote a letter to Thomas Huxley somewhat breathlessly gushing over Spiritualism. This was a "new branch of anthropology," and Wallace implored Huxley to attend séances with him in order to be convinced of its veracity. Huxley demurred. Indeed, Wallace found few believers among the scientific circles he had so carefully cultivated in his climb into the intellectual classes. Darwin couldn't hide his disappointment with Wallace's new fascination--although many scholars have noted that Wallace's interest in Spiritualism began long before he took up the question of natural selection (Oppenheim 1985). Even Andrew Lang, whose interests in ghosts and spirits might have made him a kindred spirit, panned Wallace's manifesto. For Lang (and for anthropologists today) the question was not whether or not ghosts exist, but why people believe ghosts exist (Sera-Shriar 2018).

Yet for Wallace, Spiritualism was not just about ghosts. Yes, séances provided Wallace the proof of the afterlife, but that was not what made his "new branch" so enticing. Here lies a common misunderstanding in popular accounts of Spiritualism. Popular culture is replete with ghosts

consigned to wander this earthly plane. The ghosts of Spiritualism, on the other hand, visit this world from a more perfect place; they are here to advise and admonish earth-bound mortals. Spiritualism provided a path to a better society. "As evidence-based practice Spiritualism sought to verify material relations between the living and the dead. Simultaneously, Spiritualists believed that this haunting could teach the living how to build a more perfect society in the here-and-now" (Forbes 2016: 445). For Wallace, as for other Spiritualists, the presence of spirits was not an echo of the past; it instead was a message about the future. First, the proof of spirits meant that life did not end with the death of the body. Second, the spirits had come to us not only to demonstrate their reality, but also to guide humans in their development.

Many scholars have commented on the attraction of Spiritualism to progressive activists in the 19th century, including suffragists, abolitionists, pacifists, vegetarians (McGarry 2008). With his humble class beginnings and Owenite leanings, Wallace embraced the utopian dimensions to spiritual guidance. Ultimately, ghosts were proof not just of an afterlife, but of a different, distinctly non-Darwinian evolutionary possibility for humans.

> For Wallace, non-directional evolutionary processes, guided by natural selection, may have accounted for human diversity when studying the living, but upon death a different sort of evolutionary process began that was directional and progressive [. . .] With this knowledge the spirit could progress through successive stages to the highest levels of enlightenment. (Sera-Shriar 2018: 15)

What made Spiritualism attractive to progressives was the proof of a future where present inequalities would disappear, and where the social and cultural boundaries that separated people could be eliminated (Forbes 2016: 448).

Ghosts may have taken the appearance of the past, but their ultimate signification lay in the future. And here the direction of haunting changes. For Wallace, as for Avery, the ghost impels us towards a future that will redress the past and the present. Zeitlyn concludes: "Pasts and futures haunt all of our presents, and actions emerged out of those hauntings" (Zeitlyn 2020: 504).

Technologies of Haunting

Today, when popular media turn to ghosts and hauntings, they do so with the aid of multiple technologies: video cameras, EMF and EVP detectors. But technologies have been important to Spiritualism since the mid-19th century, and it is not too much to say that Spiritualism and technology grew up together; ghosts in the modern era have been rendered sensible through various technologies from telegraphs to phone apps. As Sollors suggests, U.S. Spiritualism has one foot in exoticized Other of the Native American, the other in techno-topian mechanic futures (Sollors 1983). In other words, it would be a mistake to separate Spiritualism from the technologies practitioners utilized.

> Spiritualism was less a fiction for thinking about media than it was a technology in its own right. Thus, spiritualists practiced a bricolage that laced together diverse techniques, codes, electrics, song and dance, political address, scientific experimentation, parlor games, group meditation, experimental photography, theatrical display, and the bodies of roving lecturers and leisured bourgeoisie. The agency and efficacy of the spiritualist movement sprang from its ability to interconnect these heterogeneous elements into a scalable infrastructure that timed together millions of practitioners. (Geoghegan 2016: 902)

From the beginning of Spiritualism, communicative media have been essential--not only because

these translate between ghosts and humans, but also because these media are the only physical proof of the spirits. Indeed, media are their only embodiment, with spirits manipulating a variety of technologies in order to confirm their existence and to communicate with corporeal humans.

Photographing Spirits/ Photographing Culture

Through his initial exposures to Spiritualism in the 1860s, Wallace became familiar with a variety of séance technologies and practices, including slate writing. In the 1870s, however, a Boston photographer named William Mumler introduced a new technique for visualizing the spirit world: spirit photographs. Mumler would photograph his subjects at his studio, but, when the photographs were developed, spectral figures would be visible around the sitter. Many in the 19th century accused Mumler of fraud, and photographers demonstrated how superimposition of negatives could produce the same effects. Indeed, spirit photography was in some ways anticipated a century before with the phantasmagoria of Etienne Gaspard-Robertson and others who projected spectral images around their tents with magic lanterns. For Wallace, however, these were yet more tangible proofs of the reality of the spirit world. "If they really reflect or emit light which makes them visible to human eyes, *they can be photographed*. Photograph them, and you will have unanswerable proof that your human witnesses are trustworthy" (Wallace 1874: 38). Spirit photography, however, was more complicated than this.

While many photographs produced during the 19th century purported to show the ghosts themselves, other photographs merely represented misty shapes--ectoplasms sometimes shown emanating from the mouths and noses of spirit mediums. Finally, some apparitions were rather obviously cut-outs from magazines and newspapers (Medeiros 2015). However, these did not invalidate the truth of the photograph:

> Pictures which have the appearance of being copied from statues, paintings, or drawings. Sometimes these are busts or heads only. The flatness in some photographs of this class is supposed, by a person who has not investigated the subject, to be proof that the photographs are produced in a fraudulent manner. (Taylor 1894: vii)

Taylor's point is that proving the earthly provenance of these cutouts does not address their miraculous appearance in the photographs. How did these images appear in prints, when the negative plates from which they are made show no such images?

More to the point, the presence of cutouts and ectoplasmic emanations undermined the direct indexicality of spirit photography as photographs-of-spirits. Wallace allowed for this complexity in his own theorizing:

> The figures which occur in these, when not produced by any agency, may be of "spiritual" origin, without being photographs "of spirits." There is much evidence to show that they are, in some cases, forms produced by invisible intelligences, but distinct from them. In other cases the intelligence appears to clothe itself with matter capable of being perceived by us, but even then it does not follow that form produced is the actual image of the spiritual form. (Wallace 1874: 38)

The proof of the photographs, then, lay not in the figures themselves, but by what the figures signified. Ultimately, their significance lay outside of the photograph itself; photographs of ghosts were calling cards gesturing to the unearthly intelligences that guided their production.

In this, spirit photography overlaps with the history of photography in anthropology, and the similar struggles visual anthropologists experienced in photographing culture. Reviewing the work of

Franz Boas and George Hunt (and others) in rendering otherwise inchoate "culture" visible, Delaplace considers the role of the photograph in what Taussig has referred to as dialectics of revelation and concealment (Taussig 2003).

> More precisely, the epistemic virtue sustaining the production of ethno-graphic photography entailed the ability to hide certain things—or rather, as we shall see, to hide the right amount of things (enough, yet not too much)—so as not only to leave others visible but also to make yet another one appear (culture) that was not, or not quite visible in the first place. (Delaplace 2019: 39)

Like Wallace, early anthropologist struggled to produce proof of an invisible reality. Culture--in the holistic sense that anthropologists had cultivated all the way from Tylor--exceeded the material culture in the photograph. A photograph of a Kwakwa̱ka̱'wakw woman weaving with cedar bark illustrated elements of cultures, but gender, kinship and language could only be inferred. As a symbolic production, meaning could only reside outside of the photo. Finally, signs of the colonization of Native Americans were actively excluded, with Boas and George Hunt holding up a blanket to block the picket fence and Victorian cottage in the background (Miller and Mathe 1997). Similarly, as Elizabeth Edwards points out, the process also works the other way: the photograph contains details ultimately extraneous to anthropological fact: "The relation between anthropology and photography was haunted, however, by the impossibility of containing the medium's random inclusivity" (Edwards 2012: 167).[2] This struggle with the visible and the invisible was anticipated by Tylor and Wallace in their early battles over Spiritualism and what constituted proof in anthropology. For Tylor, it was the statistical equivalencies between assemblages of artifacts, while Wallace looked to higher powers--yet both, as Pels (2003) shows, looked beyond the visual, sensible record to the invisible realities upon which it rested.

> It becomes immediately obvious that Tylor's classifications, too, were ways to reason from perceived effects toward invisible causes of human progress. Ignoring, for the moment, their vast differences, one might complement Wallace's sequence of invisible forces--light or heat waves, electricity, magnetism and "spirits"--with Tylor's conceptions of the progress toward a rational psychic unity of mankind and the mental diseases that stood in its way. (Pels 2003: 267)

The struggle with ghosts, in other words, included more than the spirit of the departed, and the practice of anthropology in the nineteenth century was haunted (as it still is today) by what it could not represent as much as what it could.

Of course, anthropologists and spiritualists were not the only ones struggling to render the incorporeal visible. Alongside a renewed growth in Spiritualism in the wake of World War I, surrealists utilized many of the same double exposure and superimposition techniques in their urban photography in order to represent the affective truths of the modern city. It was not the city itself that was interesting, but, as Walker writes, "their concern was with the disruptive forces which lay behind the facade of normality" (Walker 2002: 32). Here, the same superimpositions of magazine and newspaper cutouts could gesture to the truths that lay behind the urban facades. A more recent heir to spirit photography has been augmented reality. Dozens of apps allow smartphone users to superimpose historic images over the contemporary city, oftentimes together with notes and multiple media that speak to importance of the site. Augmented reality games layer Pokemon or zombies onto city streets and parks in ways that interact unevenly with urban political economy (Cristiano and Distretti 2017). We have had extensive experience in designing app tours in Baltimore highlighting not only historic communities, but also the racial and environmental inequalities that have contributed to both urban development and underdevelopment (Collins,

Durington and Fabricant 2017).

These allow us to contest assumptions regarding absence and emptiness. Is the home or the factory abandoned? Or is it "full" of past relationships and future potentialities? In photographs, film or augmented reality, this more complex relationship to time "invites dwelling in the in-between space where endings and beginnings, destructions and creations, have not yet been sorted and arranged. This space is not empty, but rather full of humans, nature, things, relations, anticipations, and speculations" (Dzenovska and Knight 2020).

Reverse Image Lookup

Most people search for internet images using text-based engines. Typing "Baltimore" into a search bar yields thousands of photographs of the city, which vacillate between pictures of the Inner Harbor and "poverty porn" of Baltimore's abandoned homes. These searches are at least partially based on text associated with the image. However, starting in 2011, Google introduced a "Search By Image" feature that allows users to upload a picture or specify a URL, with the results including other iterations of the same image or images that have been algorithmically judged similar to the original. Google reverse image search joins other search engines, including Bing Images and Yandex image search that allow for the same operations, yet return very different result sets. Yet although the algorithms of these search engines remain proprietary, we can nevertheless say that CBIR (Content-based image retrieval) searches consist of many of the same parts. First, a collection of photographs from which visual features have been algorithmically extracted (the "features vector") are placed into an index (Marques 2016; Nieuwenhuysen 2018). Then, new images are compared against that index to generate either a match or a list of images deemed similar.

Although the features that are indexed--together with the ways those features are utilized in a search--remain part of the "black box" of the algorithm, it is obvious that some reverse image search engines return more accurate results than others. Indeed, since many users utilize these engines to search for copyright infringements, the accuracy of results lists is oftentimes of primary concern. Bing's "Image Match" seems to return more exact matches, while Yandex (a Russian search engine) is (perhaps not surprisingly) incredibly accurate in identifying Russian places. Google seems to sometimes identify places, but, more often than not, generates a list of images that have similar features (e.g., a fence) or a similar line perspectives (e.g., a street).

Whether accurate or not, reverse image search engines algorithmically link together images in ways that may be--from the perspective of the user--novel and surprising. In other words, reverse image search brings together diverse images in occasionally unexpected ways--all according to the logic of the algorithm. Not only is the generation of results a classic "np" problem, but, as Parisi has argued, algorithms themselves are rooted in indeterminacy (Parisi 2013). That said, algorithmic complexity might still buttress societal inequalities that exist apart from computational logics. Noble's work on "algorithmic oppression," for example, illustrates the racist association of words and images in Google's search engine--a product both of US racism and algorithms that have the effect of amplifying that racism (Noble 2018). Other studies have shown how algorithms built on institutionalized bias and racism can lead to longer sentences for non-white defendants in US courts (Huq 2019). Yet algorithms (however we understand them) do many things. Perhaps the best way of thinking of them is as "connectors"--they connect sets of data in ways that are in some ways novel. In an age of "Big Data," it is the algorithm that allows for multiples data points to be aggregated into a frightening doppelganger of our behaviors and to be manipulated into making commercial or political decisions.

Lee et al (2019) suggest that we think of these processes as a form of "folding" (after the work of Bruno Latour), where algorithms are agents complicating knowledge topographies by bringing

together some data while rendering others more distant.

> Rather than thinking about objects, relations and concepts as stable objects with fixed distances and properties, we might attend to how different topologies produce different nearness and rifts. In this way, technologies, such as algorithms, can be understood as folding time and space as much as social, political and economic relations. (Lee et al 2019: 3)

Sometimes "folding" works to magnify existing inequalities, overdetermining the oppression of marginalized peoples. But algorithms can be put to a variety of uses, including what Jason Farman has called "creative misuse," where people use "technology is a way in which it was never meant to be used, the results of which offer a thoroughly transformed view of technology, its place in society, and future practices within technology" (Farman 2014: 4). "Folding" can also work to bring out submerged or latent meanings--even if these were not the original intentions of the technology's creators. With photography in cities, it is impossible to miss the similarity of folding with the surrealist project and, indeed, with the spirit photography that proceeded it.

Algorithms, then, constitute another form of haunting--rendering visible subterranean connections and sublimated meanings and, like surrealism, representing a "double vision of the city" juxtaposing the familiar and the uncanny (Lusty 2018). Here, algorithms elaborate on an "urban imaginary" that includes repressed memories and sublimated desire by folding space and time together according to a machine logic that itself draws from an unconscious human perception of pattern, similarity and, perhaps, of critique and promise.

Baltimore, City of Ruins and Promise

My work in Baltimore has never been focused on "ruins"--those sites are often included in "dark tourism" of the city. Nevertheless, there is no escaping Baltimore' s many moribund developments, empty buildings and derelict shopping plazas that lie in the shadow of its much-vaunted Inner Harbor development and exist as proof that processes of abandonment and gentrification are simultaneous developments in the neoliberal city (Marcuse 1985). These sites--the surplus city held captive for future exploitation--can be construed as part of an overall failure of urban policy in Baltimore. In another way, however, they betray the fact that parts of the city have simply been designed to fail; with inadequate infrastructure and capitalization, these are neighborhoods that have been sacrificed to speculative capital. Yet, pace Italo Calvino, cities imply other cities, and a building or a street sets up a train of associations that can lead far from Baltimore into the uncanny of other places and times.

My own project began with photos from the edges of previous fieldwork on community and place-making in the city. Uploading images to reverse image search, I examined hundreds of "visually similar images" using the Google search engine. Google never supplied an exact match for any of the photos I tried. From the image list, I scrolled down until I came to the first one that was either available in the public domain or that had a creative commons license that would allow me to alter the image. "Wikimedia" images were commonplace.

Next, I overlaid the search image(s) on top of my original image. I had initially worked on fusing them together through Photoshop into a single image, but, inspired by spirit photography, I wanted to keep the artifice of obvious double exposures and superimpositions (Natale 2012).

The result is less a transformed city than the juxtaposition of two urbanities: the beginnings of a critical discourse. Yet here, it would be a mistake to see the inset photo as an "improvement" or "fix" for Baltimore. This is not a celebration of urban development, and just because the search

engine returned more prosperous visions of the city does not mean that gentrification is the answer to Baltimore's problems or even a bellwether for its future. Rather, the inset image highlights the ghosts of those inequalities that Baltimore has yet to address, inequalities that, in the style of both visual anthropology and spirit photography, may be absent from the photo but still exert their spectral force upon it. Finally, I would argue that the inset photo is already present in the Baltimore picture.

And to clarify: the "ghosts" here, are not the images themselves, although these set up conversations about equity and the contradictions of development. Like the cut-outs and the blobs that populated some spirit photographs, these photographs overlays are communiques. I think of this more along the lines of slate writing: the algorithm has allowed for myriad Baltimore ghosts to communicate with us through the medium of reverse image search, including—a long list of spirits that include: 1) Baltimore's segregationist mayors (from Mayhool to Schaefer); 2) public-private partnerships that systematically concentrated capital in Baltimore's Inner Harbor at the expense of African American neighborhoods; and 3) consultants and government officials who have made empty promise after empty promise to the city's inhabitants. These ghosts—like Wallace's—have something to tell us about the future, but the message is absolutely not that Baltimore needs commercial development. Instead, these photographs confront binarisms of urban renewal, and beg us to consider alternatives represented in neither the photograph nor the insets.

Figure 4. Old Town Mall [Framing picture by author. Inset picture "Jerusalem Light Rail" by Navot Miller
https://upload.wikimedia.org/wikipedia/commons/thumb/6/64/Jerusalem_Light_Rail_in_Zion_Square_on_A_Rair _November_2011.jpg/1920px-Jerusalem_Light_Rail_in_Zion_Square_on_A_Rainy_morning_- _November_2011.jpg]

The photo above (Figure 4) depicts Old Town Mall, a moribund pedestrian shopping center that represents successive attempts to revive the Gay Street shopping district, an area that formerly anchored East Baltimore's African American community. Similar to other U.S. cities, Baltimore's elites used the 1968 riots in the wake of Martin Luther King's assassination as an excuse for urban renewal projects, but the resulting pedestrian shopping corridor never succeeded, due to, among other things, the Jones Fall Expressway, a highway built through the middle of Baltimore which tore a hole through Baltimore's African American community while separating the remaining

neighborhoods from the downtown district. Reverse image search yielded an interesting photo of a busy commercial district in Jerusalem, which in the image above, superimposes more prosperous commercial areas, pedestrians and mass transit on the boarded up shops of Old Town. The inset seems to suggest that this train may soon "arrive" at Baltimore's Old Town, bringing with it more capital, to be sure, but also the history of right-wing demonstrations in Zion Square.[3] Whatever else **it may suggest**, it gestures to Baltimore's canceled Red Line, a rail transit that would have connected East and West Baltimore (primarily African American parts of the city) with the downtown core. However, when Maryland's current (Republican) governor came to power in 2015, one of his first executive decisions was to cancel the Red Line project and divert the money to suburban interstate development. Like its Baltimore counterpart, the Jerusalem inset begs the question of development in a partitioned city, asking us to consider the violence of urban renewal in Baltimore alongside other forms of disenfranchisement and division. As I write this, the Old Town Mall is finally undergoing redevelopment, but one that appears more enclave than artery, with upscale residences and a hotel suggesting an extension of Baltimore's Inner Harbor rather than a replacement for public housing projects that have been demolished in the Old Town area. Old Town threatens to become another part of the gentrified city, pushing people out of their neighborhoods in a "city as growth machine" model that Baltimore has been embracing since urban renewal began in the 1950s (Logan and Molotch 1987; Harvey 2000).
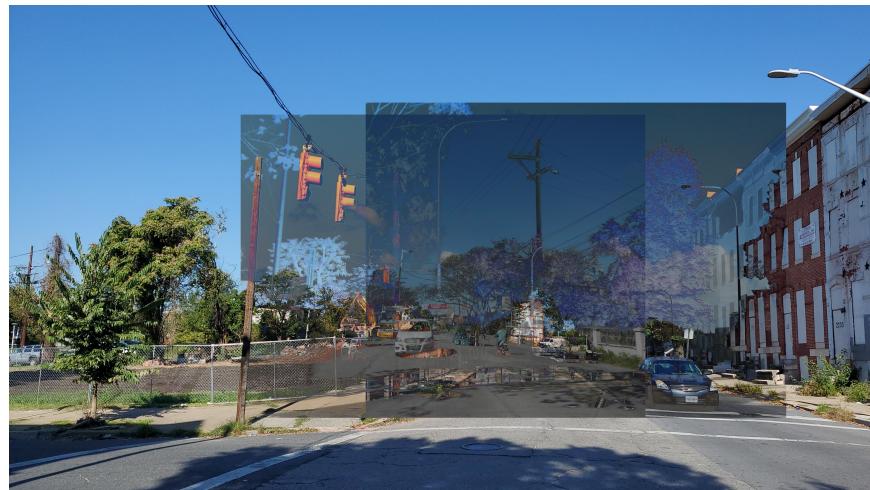
Figure 5. Cab Calloway House [Framing photo by author. First inset photo: Mahatlika Highway Sanat Cruz Tabang, Guiguinto (public domain). Second inset photo: Stirling Highway, Nedlands, looking east from Webster Street near the council chambers. Author: Orderinchaos. https://en.wikipedia.org/wiki/Stirling_Highway].

A block of row homes on the north side of 2200 Druid Hill Avenue in Baltimore upper west side was demolished in September of 2020 after having been deemed "structurally unsound." The West Baltimore block was also home to the jazz legend Cab Calloway when he was a teenager. Despite a 2-year battle to preserve the property, however, Calloway's home is gone--the latest in a number of decisions to destroy legacies of African American history and culture in Baltimore (Pitrelli 2020). When I photographed the site in October (Figure 5), the block had been reduced to dirt and scattered rubble, awaiting redevelopment as a park. The loss is even more poignant in this neighborhood. This street and the neighboring Marble Hill neighborhood were centers for African American intellectual and artistic life during the years of the Harlem Renaissance.

The reverse image search pulled up several photos of rural roads, and this photo overlays two of those--one from Western Australia, and other from the Philippines. To me, this raises the question of Baltimore's future. Will this be a city of histories or one of interstitial spaces on the way to somewhere else? The ex-urban/ rural feeling in both of the inset images is an ironic commentary

on the park, because they suggest the absence of the urban fabric, together with the rich networks of social relations that made the neighborhood an intellectual powerhouse in the first decades of the twentieth century.

The insets raise other, uncomfortable questions as well. Stirling Highway, for example, was built during the 19th century as the Perth-Fremantle Road with convict labor that included Aboriginal persons (Gibbs 2001). To this day, Maryland (like Australia) utilizes prison labor—mandating, for example, that government (and state university) furniture be purchased from its prisons. Maryland also continues to have the highest incarceration rates for African Americans in the United States (Nellis 2021).
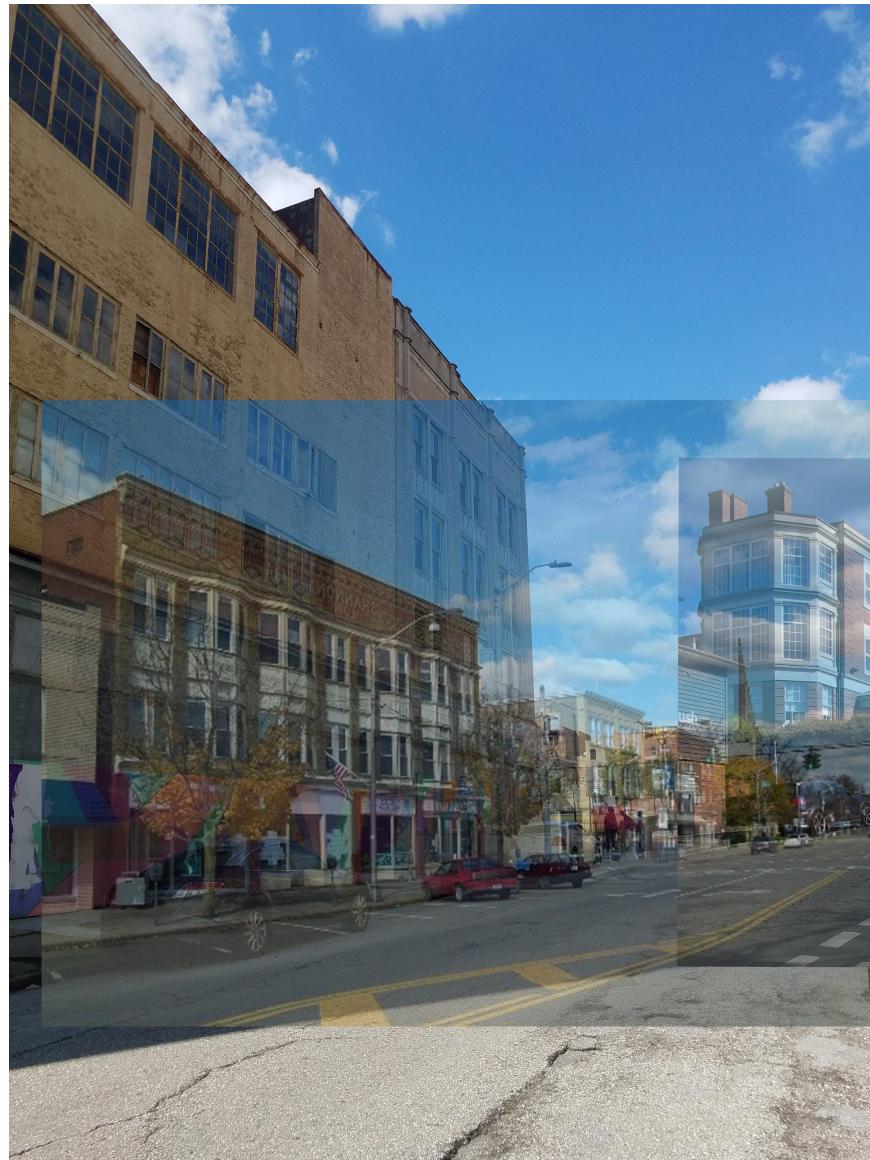
Figure 6. Park Avenue [Framing photo by author. Overlay image #1 (reversed):https://en.wikipedia.org/wiki/Liberty_Street_Historic_District_(Bath,_New_York)**; - image in the public domain Overlay image #2: "Nottingham Women's Hospital" by John Sutton.** https://en.wikipedia.org/wiki/Nottingham_Women%27s_Hospital **]**

This photo (Figure 6) depicts a boarded-up stretch of Park Avenue, just northwest of City Hall, at the base of what was Baltimore's Chinese American community. Just around the corner was the city's Greyhound bus station. In its heyday, it provided travelers easy access to downtown and anchored a number of African American businesses, but it closed down in 2004 and moved

several blocks south next to Ravens stadium. In September of 2018, a group of Asian American volunteers organized a hugely successful "Charm City Night Market" to celebrate the area's Asian American heritage (Case 2018). But a week later (when this photo was taken), the area had returned to boarded-up obscurity. A reverse image search generated photos of residential urban centers, and this photo includes two: one from Bath, New York, and the other from Nottingham, UK. To me, looking at this massive area of empty commercial and retail spaces in downtown Baltimore, the superimposed photos suggest a shift to more modest, mixed-use development. Certainly, the city has tried to make the downtown more amenable to professional residents, and the number of "luxury" developments up and down the Charles Street corridor exploded in the decades after the bus station closure. The insets raise that question, then: who will live in these buildings? Whom will stores serve? Current development strategies continue Baltimore's "eds, beds and meds" strategy of marketing the inner-core to professionals, all the while compounding disinvestment in other parts of the city (Brown 2021). The superimposed photo on the right is a hospital. In Baltimore, area hospitals (and in particular John Hopkins) contribute no tax dollars to the city and occupy huge swathes of land. The photos "fill" the boarded-up buildings, and project a re-population of Baltimore's downtown core. On the other hand, the photos gesture towards gentrification which continuously threatens wide swathes of this majority-African American city. It's worth mentioning that there is no sense in the inset photos of a return of a Chinese American community.

Baltimore, City of Dreams

In historical accounts of Victorian science, Alfred Russell Wallace is most often a figure of pity: someone who theorized natural selection before Charles Darwin, yet, in the end, fell to a belief system that many critics dismiss as mere chicanery. These were not his only faults. He was, like many white men of his education and station, a racist, and our appreciation for his generally progressive views needs to be tempered by his certainty that the "uncivilized" peoples of the world would eventually die out. Indeed, one of the "facts" that led him to reject natural selection in explaining human evolution rested on his insights that "savage" people didn't need their mental capacity, hence there must be another, ultimate purpose and teleology to human mental development (Kottler 1974). Nevertheless, like the spirit photographs Wallace defended, what's worth revisiting here is the possibility of truths outside of the frame. For him, photography revealed a glimpse of an intelligence not otherwise sensible to humanity.

> In this way he countered charges of delusion by showing the coherence and independence of the will of both disembodied intelligences and of the mediums through whom they were revealed. The importance he placed on spirit photography thus drew from many of the same values as mechanical objectivity, but it did so in order to demonstrate the efficacy and coherence of the human will, psyche, or spirit. Spirit photography was thus a spiritual technology. (Mitchell 2014: 16)

Wallace teaches us that what is absent can have power over presence, and that non-existence can have a shadowy existence on the margins that tugs at the warp and weft of the real. That there could be something beyond the image in front of us is not an unfamiliar notion. It animates surrealism and is a key component of Benjamin's "lightning flash" that would cut through the phantasmagoria of capitalism to reveal both oppression and emancipation (Buck-Morss 1989: 241). It is also an important component in the hauntings that Avery Gordon chronicles, where people rendered invisible by power and racism exert their moral suasion from outside the frame, as in Gordon's exposition of Sabina Spielrein's absence from a photo of The Third Psychoanalystic Congress in 1911 (Gordon 1997). With Wallace and spirit photography, the difference is that the photograph revealed the objective truth of the spectral, not its symbolic representation, but its factual existence: the will of the ghost. And, as Wallace saw (however imperfectly), that spirit was one of human equality and justice, a place and a purpose that exceeded the rank racism and

imperialism of Wallace's day. Here, Wallace exceeded himself towards something he could not know, just as spiritual technologies index a world that has never been seen.

Moving from Wallace's time to our own, the ubiquity of networked ecologies enables not only connectivity, but also summons latent connections to worlds and ideas that are formally absent or excluded. Similarly, the algorithms trained on data deformed by decades of structural racism connect people to products, institutions, employment and relationships in, sadly, highly unequal and predictable ways (Noble 2018). Yet they also summon latencies which bring ghostly absences to the fore, and connect excluded ideas and agency to the present, gesturing beyond to a future that exceeds both the connections and the latencies. Chasing down search results for Google reverse image search shows us the power of algorithms. Yet it also suggests how we might counter the ideological overdetermination of the neoliberal city in ways that call into question the inevitability of capital development. Beyond the photo lie other possibilities, possibilities that call into question the inequalities of the "smart city" and gesture to cities that have yet to be achieved. As Olmstead concludes, "The spectral city is thus, a truth, a spectral city-to-come, haunted as much by a future that is always already out of reach as it is by the past" (Olmstead 2019).

This is Wallace's "new branch of anthropology" in an era of networked media, one that hinges an absence, latency, and on tracing the spectral connections technologies open to other possibilities, potentials that can interrogate technological hegemonies. In his work on latency and utopia, Ernst Bloch distinguished between "*anamnesis* (recollection) and *anagnorisis* (recognition) (Zipes 1997: 4). Anamnesis brings truth from the past; it is inherently backward-looking.

> On the other hand, *anagnorisis* is like *déjà vu*, a shock of recognition; it brings back a trace or fragment from the past in such a new way that it can be reactivated and transformed for future action. (Zipes 1997: 4)

Building on Ernst Bloch's distinction, an urban anthropology that only dwells on images of the real misses the transformative potentials that lay just beyond the frame of anthropological tableau vivant: reducing "reality to what has become real" (Anderson 2006: 70). The vespiary of connections that make up contemporary networked life can oppress, but there are potentialities that lie at their interstices that we can glimpse through the shadows. As Gordon writes, there is no need to flee from these ghosts, and we should "be more willing to rise to their challenges" (1997: 194). These are the lively—and perhaps even beneficent—ghosts that a "new branch of anthropology" might conjure.

Endnotes

1. A reviewer notes that this subject calls for a more detailed discussion of the photograph as semiotic sign, one that might lead to social critique for some (me, for example), but not for all. "Each of the photos can be approached as a form of intertextuality. The power and meaning of each photo is, in part, generated on the basis of the semiotic "interaction" between each of two image building blocks of which they exist" (personal communication). ↵

2. Edwards gets to the heart of the photograph's power—its "unintended" qualities. As a reviewer points out, we see this happening in reverse image search as well. With each "incorrect" search result, putatively unintended connections emerge, in much the same way as specks of a photographic plate lead to a connection to spirits. ↵

3. Thanks to an anonymous reviewer for pointing out the political struggle over Jerusalem's light rail. ↵

References

Anderson, Ben. 2006. Transcending Without Transcendence. *Antipode* 38(4):691–710.

Bliss, Cua Lim. 2001. Spectral Times. *positions* 9(2):287–329.

Brown, Lawrence. 2021. *Black Butterfly*. Baltimore, MD: Johns Hopkins University Press.

Case, Wesley. 2018. In Baltimore's Forgotten Chinatown, A New Festival Will Celebrate Asian-American History and Culture. *Baltimore Sun* 5/21/2018, accessed at www.baltimoresun.com, September 25, 2018.

Clark, Emily Suzanne. 2016. *A Luminous Brotherhood*. Chapel-Hill: University of North Carolina Press.

Collins, Samuel and Matthew Durington. 2015. *Networked Anthropology*. NY: Routledge.

Collins, Samuel, Matthew Durington and Nicole Fabricant. 2017. Teaching Baltimore Together. *Metropolitan Universities* 28(2). Accessed on December 6, 2020 at cumuonline.org.

Collins, Samuel, Matthew Durington, Glenn Daniels, Natalie Demyan, David Rico, Julian Beckles and Cara Heasley. 2013. Tagging Culture. *Human Organization* 72(4):358–68.

Cortes-Rocca, Paola. 2005. Ghost in the Machine. *Mosaic* 38(1):151–68.

Cristiano, Fabio and Emilio Distretti. 2017. Along the Lines of the Occupation. *Conflict in Society: Advances in Research* 3:130–45.

Delaplace, Gregory. 2019. More Than Corpses, Less Than Ghosts. *Visual Anthropology Review* 35(1):37–49.

Deleuze, Gilles. 1991. *Bergsonism*. NY: Zone Books.

Dzenovska, Dace, and Daniel M. Knight. 2020. Emptiness: An Introduction. Theorizing the Contemporary, *Fieldsights*, December 15. https://culanth.org/fieldsights/emptiness-an-introduction

Edwards, Elizabeth. 2012. Tracing Photography. In *Made to Be Seen*, edited by Jay Ruby and Marcus Banks, pp. 159–89. Chicago: University of Chicago Press.

Farman, Jason, ed. 2014. *The Mobile Story*. London: Routledge.

Ferguson, Christine. 2015. Other Worlds. *Victorian Review* 41(2):177–91.

Ferreday, Debra and Adi Kuntsman. 2011. Introduction: Haunted Futurities. *borderlands* 10(2), accessed at go.gale.com on October 6, 2020

Forbes, Erin E. 2016. Do Black Ghosts Matter? *ESQ* 62(3):443–79.

Gabriel, Sonja. 2017. Pokemon Go: How Religious Can an Augmented Reality Hunt Be? *Heidelberg Journal of Religions on the Internet* 12:18–31.

Geoghegan, Bernard Dionysius. 2016. Mind the Gap. *Critical Inquiry* 42(4):899–922.

Gibbs, Martin. 2001. The Archaeology of the Convict System in Western Australia. *Australian Historical Archaeology* 19: 60–72.

Gordon, Avery F. 1997. *Ghostly Matters*. Minneapolis: University of Minnesota Press.

Gordon, Avery F. 2011. Some Thoughts on Haunting and Futurity. *borderlands* 10(2), accessed at averygordon.net on October 6, 2020.

Harvey, David. 2013. *Rebel Cities*. NY: Verso.

Holloway, Julian. 2006. Enchanted Spaces. *Annals of the Association of American Geographers* 96(1):182–87.

Huq, Aziz. 2019. Racial Equity in Algorithmic Criminal Justice. *Duke Law Journal* 68(6):1043–1133.

Kottler, Malcolm Jay. 1974. Alfred Russel Wallace, the Origin of Man, and Spiritualism. *ISIS* 65(2):144–92.

Lecourt, Sabastian. 2018. *Cultivating Belief*. New York: Oxford.

Lee, Francis, Jess Bier, Jeffrey Christensen, Lukas Engelmann, Claes-Fredrik Helgesson and Robin Williams. 2019. Algorithms as folding. *Big Data & Society* (July–December):1–12.

Logan, John R. and Harvey L. Molotch. 1987. *Urban Fortunes*. Berkeley: University of California Press.

Lusty, Natalya. 2018. Surrealism in the Hallucinatory City. *Modernism/Modernity* 25(2):269–302.

Marcuse, Peter. 1985. Gentrification, Abandonment, and Displacement. *Journal of Urban and Contemporary Law* 28: 195–240.

Marques, Oge. 2016. Visual Information Retrieval. *IT Pro* (July/August):7–9.

McGarry, Molly. 2008. *Ghosts of Futures Past*. Berkeley: University of California Press.

Medeiros, Magarida. 2015. Facts and Photographs. *Communication +1* 4(1):Article 6.

Miller, Thomas Rose, and Barbara Mathé. 1997. Drawing Shadows to Stone. In *Drawing Shadows to Stone: The Photography of the Jesup North Pacific Expedition, 1871–1902*, edited by Laurel Kendall, Thomas Rose Miller, and Barbara Mathé, pp. 19–40. New York: American Museum of Natural History.

Mitchell, Benjamin David. 2014. Capturing the Will. *Studies in History and Philosophy of Biological and Biomedical Sciences* 46:15–24.

Natale, Simone. 2012. A short history of superimposition. *Early Popular Visual Culture* 10(2):125–45.

Nellis, Ashley. 2021. *The Color of Justice*. Washington, D.C.: The Sentencing Project.

Nieuwenhuysen, Paul. 2018. Finding Copies on an Image. *Proceedings of the 14th International Conference on Webometrics, Informetrics and Scientometrics & 19th COLLNET Meeting 2018*.

Noble, Safiya. 2018. *Algorithms of Oppression*. New York: NYU Press.

Olmstead, Nathan. 2019. Data and Temporality in the Spectral City. *Philosophy & Technology* 10, accessed at springer.com on September 10, 2020.

Oppenheim, Janet. 1985. *The Other World*. New York: Cambridge University Press.

Parisi, Luciana. 2013. *Contagious Architecture*. Cambridge, MA: The MIT Press.

Park, Robert. 1967. *On Social Control and Collective Behavior*. Chicago: University of Chicago Press.

Peirce, Charles Sanders. 1894. What Is a Sign? In *The Essential Peirce*, edited by Peirce Education Project, pp. 4–10. Bloomington, IN: Indiana University Press.

Pels, Peter. 2003. Spirits of Modernity. In *Magic and Modernity*, edited by Birgit Meyer and Peter Pels, pp. 241–71. Stanford: Stanford University Press.

Pitrelli, Marti. 2020. With Calloway House Teardown Looming, An Activist Laments the Lack of Leadership that Let It Happen. *Baltimore Brew*, March 30, 2020, accessed at www.baltimorebrew.com, November 10, 2020.

Satz, Aura. 2013. Typewriter, Pianola, Slate, Phonograph. In *The Machine and the Ghost*, edited by Sas Mays and Neil Matheson, pp. 37–56. NY: Manchester University Press.

Sera-Shriar, Efram. 2018. Credible Witnessing. *Modern Intellectual History*. 17(2):357–84.

Sollors, Werner. 1983. Dr. Benjamin Franklin's Celestial Telegraph, or Indian Blessings to Gas-lit American Drawing Rooms. *Social Science Information* 22(6):983–1004.

Starosielski, Nicole. 2015. *The Undersea Network*. Durham, NC: Duke University Press.

Stocking, George. 1971. Animism in Theory and Practice. *Man* 5(1):88–104.

Taussig, Michael. 2003. Viscerality, Faith, and Skepticism. In *Magic and Modernity*, edited by Birgit Meyer and Peter Pels, pp. 272–306. Stanford: Stanford University Press.

Thomson, James. 2008[1880]. *City of Dreadful Night*. Downloaded on December 3, 2020 from www.gutenberg.org.

Taylor, John Traill. 1894. *The Veil Lifted*. London: Whittaker and Co.

Walker, Ian. 2002. *City Gorged with Dreams*. New York: Manchester University Press.

Wallace, Alfred Russel. 1874. *A Defense of Modern Spiritualism*. Boston: Colby and Rich.

Wilson, Leigh. 2013. Miraculous constellations in real material. In *The Machine and the Ghost*, edited by Sas Mays and Neil Matheson, pp. 57–77. NY: Manchester University Press.

Wingfield, Chris. N.d. Tylor's Onion. *England: The Other Within* [online]. Retrieved from http://england.prm.ox.ac.uk/englishness-tylors-onion.html on 12/9/2011.

Zeitlyn, David. 2020. Haunting, Dutching, and Interference. *Current Anthropology* 61(4):495–513.