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Article abstract

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***Pokémon Go* as palimpsest: Creating layers of meaning through augmented reality**

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Abstract

In this paper, I employ the concept of the palimpsest of meaning (Bailey, 2007) to illustrate how *Pokémon Go* shapes and produces relations to place. Using ethnographic data from student players at the University of Guelph, I demonstrate how augmented reality (AR) gaming constructs a curated layer of place meaning that influences players' knowledge of, relationships to, and movement through space. In so doing, I argue that we should not ignore the potential of AR technology to influence how we come to know place, emphasizing the impacts that biases, which are coded into this technology, might have on subaltern narratives of place and on marginalized communities, particularly in the context of Canadian settler colonialism and the erasure of Indigenous knowledge.

Author Keywords

Pokémon Go; anthropology of place and space; place knowledge; place meaning; palimpsest.

***Pokémon Go* as palimpsest: Creating a layer of meaning through augmented reality**

This research explores how *Pokémon Go* (Niantic, 2016) shapes and produces relations to place through an examination of the experiences of student players at the University of Guelph, a mid-sized university in southern Ontario, Canada. I bring literature and theory on place into conversation with augmented reality (AR) gaming to ask how AR constructs a curated layer of place¹ meaning that influences players' knowledge of, relationships to, and movement through space. I employ the concept of the "palimpsest of meaning" (Bailey, 2007)—a perspective that sees meaning as multilayered and contextual—to demonstrate how *Pokémon Go* can shape place meaning and experiences in place. This layer of meaning emerges from in the hybrid *hyperreality* (Cristiano & Distretti, 2017), or the intersection of the *real world*² with virtual possibilities. However, the possible locations that might exist in the hyperreality are constrained by the game

makers' parameters for what makes a viable in-game location. This can have ramifications for subaltern narratives of public meaning that should not be ignored.

The process through which *Pokémon Go* shapes placemaking and experiences in place is explored through an analysis of how the game affects the mobility habits of players, their knowledge and awareness of places and the landmarks within them, how the game influences the ways that players relate to place, how players choose to navigate unfamiliar places, the game's influence on players' relationships—particularly their friendships and sense of community with other players—and its influence on non-players within a shared space. It is in these ways that the layer of meaning created by *Pokémon Go* impacts how place is understood and experienced.

It is important to understand how the game influences placemaking because, as noted by Cristiano & Distretti (2017) and Leins (2017), these effects are not neutral. The layer of place meaning advanced through *Pokémon Go* is shaped by the game's logics of what makes a place significant. These logics can override competing narratives of what constitutes a place and to whom a place might belong. I argue that the palimpsest of meaning shows us how power is perpetuated through particular ways of knowing place; by examining the meaning inscribed on a palimpsest layer, it is possible to bring injustice to light and to reveal how public meaning is constructed. The palimpsest layer created by *Pokémon Go* offers a particular representation of place, and has the potential to influence knowledge of, relationships to, and mobility within space. For student players at the University of Guelph, this layer imposes a shared place meaning on a space (the University campus) and creates new possibilities within a shared hyperreality.

About the Game

Pokémon Go is an AR mobile game based on the popular Pokémon franchise, which began in the 1990s. The *Pokémon Go* app was released in July 2016 and had over 500 million downloads by the end of 2016. As of May 2018, 147 million players were still active globally (Iqbal, 2020). Using the GPS within each player's phone, the game places the player's avatar in a digital map-like landscape. The game embeds creatures called Pokémon (which players can catch), select real-world locations into the game in the form of pokéstops (where players can get items necessary to play), and gyms (where players can collect items and battle other players). These latter two points of interest (POIs) are collectively known as Wayspots. Players are encouraged to travel from Wayspot to Wayspot to interact with these features in-game and to catch Pokémon, merging both real and virtual worlds and creating a hyperreality (Cristiano & Distretti, 2017) wherein players engage with and explore their real and virtual surroundings. The game mechanics encourage movement—from game features that reward players for distance traveled, to the spread-out arrangement of Wayspots on the map. These points of attraction correspond to the real world locations of permanent, physical landmarks that were selected for their educational or historical value, as examples of public art or unique architecture, or as communal places such as parks, libraries, or places of worship (Niantic Labs, n.d.). In this way, the game can shape players' knowledge of public areas and landmarks, influence the value of these areas for players, and impact the real world surrounding these landmarks for players and non-players alike.

Literature Review

Pokémon Go was the focus of considerable scholarly attention when the game was launched in 2016. Existing literature on *Pokémon Go* considers whether the game is an effective health

intervention (Gabbiadini, Sagioglou, & Greitemeyer, 2018; Krittanawong, Aydar, & Kitai, 2017; Ma, Ng, Schwanen, Zacharias, Zhou, Kawachi, & Sun, 2018), a useful pedagogical tool (Howell, 2017; Tran, 2018), and whether Pokemon Go players exhibit particular personality traits (Khalis & Mikami, 2018; Tabacchi, Caci, Cardaci, & Perticone, 2017). Other scholars have examined the role of *Pokémon Go* in social connectedness, and to a lesser extent, in placemaking (Denyer-Simmons, 2016; Vella, Johnson, Wan Sze Cheng, Davenport, Mitchell, Klarkowski, & Phillips, 2019).

Anthropological Research on Pokémon Go

Some anthropological literature exists on mobile technologies that encourage movement. Menely (2019) explores how mobile technologies such as Fitbit shape our experiences of walking, particularly in the context of Jerusalem, where walking has historically engaged the political and religious imagination and where different groups have different degrees of freedom of movement. Cristiano and Distretti (2017) document how *Pokémon Go* legitimizes a distinctly Israeli imagination of East Jerusalem, reproducing Israeli narratives of place and encouraging mobility patterns that favour these narratives. Some work has been done by anthropologists on the role of *Pokémon Go* in influencing how players relate to people and place, but this work has largely not been translated into the literature. In a blog post on *The Geek Anthropologist*, Mizer and Miracle (2016) discuss the game's role on influencing players' awareness and interpretation of their surroundings. The authors examine how *Pokémon Go*'s emphasis on engaging with nature is a manifestation of the original vision of Pokémon creator, Satoshi Tajiri (see also Miracle, 2014). In addition to the virtual world influencing our perceptions of the real world, Mizer and Miracle point out the power of the real world to shape the virtual one.

On the Society for Cultural Anthropology's podcast, *AnthroPod*, Leins (2017) examines *Pokémon Go* in relation to themes of social interaction, exploration, the power of technology to shape perceptions of and interactions with public space, and technology's power to shape that space. In an interview on this podcast episode, guest Dr. John Chaney-Lippold discusses Kranzberg's (1986) first law of technology, that "technology is neither good nor bad; nor is it neutral" (p. 545). This, Chaney-Lippold states, is evident in how beliefs and biases are coded into the logics of games, and how this can have unanticipated consequences for players' lives. In particular, the episode focuses on the issue of access to the game and how player agency might be constrained due to factors such as race, setting (e.g., urban versus rural), and inequities in access to technology (see also Bogado, 2016).

Denyer-Simmons (2016) is one notable exception to the shortage of anthropological scholarship on *Pokémon Go*. He explores how the meaning and nature of a place can be substantively changed through the use of AR technologies. He argues that *Pokémon Go* facilitates placemaking by attaching "in-game meaning to real landmarks" (p. 56) and by bringing players to places they might not otherwise go. Denyer-Simmons' work highlights the importance of thinking with anthropological literature on place while exploring the impacts of AR technology. However, his primary focus is on how the social dimensions of the game contribute to placemaking and does not discuss the role played by game mechanics. Furthermore, like the research cited above, Denyer-Simmons' research was conducted during the first few months following the game's launch, at a point in time where AR technology was novel to most players. Now, several years later, the game has become woven into players' daily experiences. The role of players in

placemaking has also grown: as of October 2019, high-level players have the ability to submit locations for consideration as Wayspots. These submissions are audited and assessed by fellow high-level players, who determine whether submissions meet Niantic's standards of historical or cultural significance (Niantic Labs, 2019). Thus, the game's potential for placemaking and players' involvement in the process has expanded since preliminary research was conducted.

Foucault and Dominant Spatial Frameworks

Foucauldian interventions in geography have considered how maps might comprise "a form of power-knowledge" (Harley, 1989, para. 7). Harley notes that maps are central to "the maintenance of state power" (para. 26), and thus, deconstructing the map necessitates a critical examination of the logics that inform the rules for cartographic representation. Harley's work represents a critical shift in cartography, as it forced cartographers to consider how the discipline's logics and practices might privilege particular spatial frameworks (Harris, 2015). In the spirit of this Foucauldian line of inquiry, Mills (2007) calls attention to "the way that colonial power informs the acceptance of certain ... spatial frameworks as normal" (p. 50) while subjugating—but importantly, not erasing—the existence of others.

Carter (2014) explores the strategies through which the spatial frameworks of historically marginalized communities are subjugated in favour of frameworks that uphold dominant ideologies, while excluding and even displacing outsiders. Her genealogy of the creation of a monument to Black history in Central City, New Orleans details the overt and covert ways in which Black placemaking and memorialization are challenged through the planned socioeconomic marginalization of, divestment of, and opposition to Black communities. Carter explores how the memorialization of Black history in Central City emerged from advocacy, community-building, and fundraising by Black community members in the face of resistance from those in power. Such grassroots mobilization stands in contrast to the ways in which monuments to Colonial powers are part of the Colonial project and can be understood as serving to support the dominance of those in power (Coutu, 2006).

The Palimpsest of Meaning

This paper employs the concept of the palimpsest of meaning (Bailey, 2007) to analyze how *Pokémon Go* superimposes a layer of meaning on places, spaces, and experiences, and influences how players interact with and dwell in place. A palimpsest is "an ancient manuscript that has been over-written with more recent text, but the older text can be seen showing through" (Marvell & Simm 2016, p. 126). It has been used in social science research to illustrate entangled or layered narratives that occupy the same space (The Chicago School of Media Theory, n.d.).

Bailey (2007) defines several types of palimpsests that go beyond the original manuscript definition. One such type is the "palimpsest of meaning", an object that acquires a series of meanings through "different uses, contexts of uses, and associations" (p. 203). To illustrate this, he gives the example of Stonehenge, which "is not only a Neolithic and Bronze Age monument, but an Iron Age one, a Medieval one and a modern one," (p. 208) with a different meaning in each of these periods. I see this description of objects-as-palimpsests as something that can be expanded not just to objects-in-place, but to places themselves. In this understanding, it is not just Stonehenge the object that can be understood as a palimpsest; I argue that the spatial frameworks or ways of knowing place might themselves be seen as layers in a palimpsest. This is not a novel

concept; for example, Marvell and Simm (2016) explore landscapes as palimpsests, as they are formed and experienced through a series of cultural, social, demographic, and political contexts (Knox, 2012) which comprise the various layers of a palimpsest of meaning.

Thus, the palimpsest of meaning is useful to interrogate how *Pokémon Go* reiterates place meaning through the lens of Niantic, the game's creator. The digital landscape of *Pokémon Go* shows only traces of the real world. While the game encourages player agency insofar as players are able to play the game and to explore anywhere,³ it simultaneously mediates that experience by curating a list of landmarks and rewarding players for visiting those locations. At present, any potential new in-game locations must be determined by other players to be of historical or cultural significance before they are approved as Wayspots (Niantic Labs, n.d.). Thus, places that are interpellated into *Pokémon Go*'s virtual reality are generally those which have already been recognized as culturally or historically significant according to the dominant narrative of place, ignoring versions of place meaning that might be prevalent among historically marginalized groups.

It is thus important to examine how *Pokémon Go* replicates particular narratives of place to the exclusion of others. In the following sections, through an examination of the ways in which players come to know place through gameplay, we see how power is replicated and how competing narratives of place—and ways of knowing place—might be marginalized.

Methods

Participants for this research project were recruited in two ways. Posters were put up at six popular “hubs” (Denyer-Simmons, 2016) for playing *Pokémon Go* on campus. These locations were near Pokémon gyms in-game, and are places where players often congregate in order to participate in raids—events where players work together to defeat and capture rare Pokémon. Recruitment posts were also made in a local *Pokémon Go* Facebook group. Participants were all students at the University of Guelph as well as *Pokémon Go* players. Pseudonyms are used in this paper to refer to participants.

Data collection comprised five 40-minute semistructured interviews. Interview topics included players' experiences on- and off-campus. The majority of interviews for this project were conducted by video call following the closure of campus in mid-March 2020, at which time a shelter-in-place order took effect in Ontario because of COVID-19. As *Pokémon Go* is centered around in-person, interpersonal interaction and exploration in-place, this no doubt influenced participants' perceptions of their previous experiences with the game. Niantic Labs has since implemented several features that facilitate gameplay from home, and which do not require participants to be mobile in order to play (Maher, 2020)⁴. Participants were therefore uniquely positioned to reflect upon the place-based and communal nature of the game, which had only recently changed, before the majority of these new features were introduced.

Data and Analysis

While *Pokémon* can conceivably be played from anywhere in the world, the game incentivizes players to visit high-traffic, urban locations, where more Pokémon appear and more Wayspots are located (Cristiano & Distretti 2017; Leins 2017). A number of participants spoke of playing the game during their commute—whether they were taking the bus to campus or walking across campus while interacting with Wayspots.

The commute has been theorized as a period of routine liminality (Wilhoit, 2017) through what Augé (1995) calls *non-places*; areas through which people might “frequent, pass through, or spend long periods of time in as part of modern existence” (Aucoin, 2017, p. 397) but which we do not find culturally or personally significant. In these non-places, commuters often engage in activities that they may not otherwise have time for. These activities, as Wilhoit imagines them, might include daydreaming, listening to music or podcasts, reading, or—I would add—playing mobile games. Because commuting entails movement, it is an ideal time to play *Pokémon Go*. Players who are walking, biking, or taking public transit are able to visit multiple Pokéstops in a relatively small amount of time. Thus, *Pokémon Go* not only serves to fill the liminal commute time, the commute becomes an opportunity to easily fulfill in-game objectives.

The commute can be so valuable to *Pokémon Go* gameplay that it affected how participants commute to campus. One participant, Joanne, noted that the game could change how she commuted to campus and could modify the objectives of her commute. While the most efficient route from her place to campus was the local walking path, Joanne chose instead to take a longer route, as she could access more Wayspots that way. Because *Pokémon Go*’s digital map assigns in-game value to real world locations, it can promote a particular understanding of place and a particular way of navigating space. The in-game value of places can shape commuting patterns and can even influence the very nature of commuting—transforming this experience from a liminal transit through non-places or generalized space (Aucoin, 2017) into an intentional circulation past a number of places that aided her in-game progress.

While the game influenced how players valued particular locations and routes, these values were not fixed. Joanne noted that when she was stressed due to school and needed to get to campus quickly, she would take the local walking path instead of the street. However, she would try to engage with the Wayspots that she passed once she arrived on campus, which still sometimes required a slight modification to her route. Thus, even when in-game value was sometimes traded for convenience or wellbeing, the game could still influence patterns of behaviour and mobility.

In addition to influencing patterns of behaviour, the game also influenced players to make sporadic changes. Peter spoke about his commute across campus to and from the parking lot as a favourite experience, noting that he often made detours from his destination if presented with the opportunity to catch a new Pokémon or participate in a raid. Gameplay thus transformed a liminal period into an opportunity for in-game productivity and exploration—both in the real world and in the hyperreality.

Pokémon Go influenced participants’ knowledge and awareness of landmarks on campus. Wayspots highlighted locations in the real world that participants often had not noticed before. The game provided a common language through which players could interpret and refer to these parts of the built environment. One example of this is the stop known in-game as the Backside Statue, based on a statue on campus that resembles a rear end. Some players noted that they had never seen the statue before it was highlighted in-game. It was through *Pokémon Go* that this and other aspects of the built environment were brought to the attention of several participants.

Other players had seen the statue before, but it was through the game that the statue gained special meaning. As there are no plaques or information near the statue, it remains open to interpretation. Before Sara started playing the game, she had noticed the statue and had wondered if it was meant to look like a backside. When she began playing *Pokémon Go* on campus, the in-game name of the statue confirmed her interpretation that this was indeed a statue of a behind (regardless of whether or not this is true).

Some participants noted that there were a number of Wayspots that they not only became aware of due to the game, but they still had not seen in real life. For instance, Kelly mentioned that she has never seen the real “Multi-Faith Language Stick” in the campus quad, despite walking past it every day. She was only aware of its existence because it had become a Wayspot. She also noted that the inclusion of such landmarks in the game made her want to better understand their meaning, but notably, this had not translated into a desire to see the object in the real world.

Many of the locations that were meaningful to participants were stops that they only became aware of through the game. Joanne mentioned that her favourite gym was one that was particularly valuable to her gameplay. She often walked by it when walking to campus or when taking breaks, and sometimes had class nearby. She felt “protective” of this gym and would regularly battle other players to take it over for her team. Despite saying that the location was meaningful to her, noting its value to her as a player, and despite visiting this Wayspot more often than others, she still had never actually seen the actual statues the Wayspot was based on. Nonetheless, the place was of significant value for her—it influenced how she navigated campus, and she felt a degree of ownership over it.

Barlett (2002) notes the value of campus walking tours in increasing familiarity with both the built and natural environment. These curated experiences, she argues, can shift focus to the previously unseen parts of a campus in a way that increases connection to place. In particular, a profound connection to place can arise from these guided personal experiences with the natural environment. In this project, it was found that while buildings and art often had significant meaning or value for participants due to their relevance in-game, outdoor spaces, particularly ‘natural’ spaces, were even more popular. All participants indicated that the app facilitated exploration of the campus arboretum, a wooded area that contains several Wayspots. Due to its in-game classification as a park, the arboretum also spawns a high number of Pokémon.

For Joanne, the strategic value of the arboretum was appealing; because it was a less busy part of campus, Pokémon stayed in gyms longer, which led to greater rewards. The higher spawn rate of what she considered to be “good” Pokémon was also an appeal. The value of the park for in-game success, alongside particular game mechanics such as the radar, which shows nearby Pokémon the player has not caught yet, encouraged her to go further into the arboretum. This exploratory aspect of the game, and the novel experiences that came with it, was something that Joanne found particularly rewarding.

Pokémon Go brought different areas of the arboretum to the attention of participants. Sara mentioned that she would go to the arboretum twice a week with her friend group and they would walk around playing for several hours. She enjoyed that she was out “in nature” and felt reminded of the natural spaces near her home. While she had visited the arboretum when she wasn’t actively

playing *Pokémon Go*, the game led Sara to venture further and become more familiar with the arboretum.

One statue in the arboretum was particularly meaningful for her. This statue, known in-game as the Tin Woman, was located “in the middle of nowhere” and was supposed to be a meeting point in the arboretum for Sara and a friend. It took her 30 minutes to locate the statue the first time, and it is now a meaningful and regular spot for the two. It was through this social experience that the Tin Woman statue was transformed from a non-place into a place—a process outlined by Denyer-Simmons (2016) and Vella et al. (2019)—from “the middle of nowhere” to somewhere.

Sonja also mentioned that the game took her to places in the arboretum that she did not know existed. During one in-game event, she was joined by a friend who was not a player, but who needed to collect some bug samples for an entomology course. They explored new areas in the arboretum together, trying to find Wayspots on the Pokémon map, catch the event’s featured Pokémon, and locate bugs for her friend’s assignment.⁵ While these examples demonstrate that the app motivated participants to spend more time in natural spaces, it is important to note that Niantic Labs does not allow natural features to become Wayspots (Niantic Labs n.d.). Instead, the Wayspots must be constructed POIs, such as educational signs, statues, or trail markers. Thus, while the game encourages outdoor play, it simultaneously rewards players for visiting built aspects of a curated outdoor environment, rather than forests or other wilderness.

In addition to the natural spaces on campus, all but one participant mentioned that the game drew them to the area surrounding the campus art gallery, where there are many pieces of outdoor art, several of which have been turned into Wayspots. Because it is also classified as a park in-game, the area spawned a higher number of Pokémon than the rest of campus. Participants stated that they would not have visited this area if it weren’t for the game, as they rarely had classes near that part of campus. However, participants were often drawn to the area for game-related reasons. For example, an in-game quest to battle the main antagonists—Team GO Rocket, non-player characters who take over pokéstops and turn them a dark blue color visible on the game map—could drive participants to go out of their way to battle them. For other participants, the area’s in-game classification as a park, and the crowded nature of the Wayspots there—visible from a distance on the game map—were motivation for players to go there. In detailing their experiences, multiple players could remember which species of Pokémon were spawning at the time of their recent visits. It is particularly notable that Pokémon spawns became part of participants’ place memory even as they exist only in the hyperreality. In this way, *Pokémon Go* gave this place a particular layer of meaning that makes it valuable to players socially and in-game, while also conferring meaning onto places in the real world.

In addition to showing players new places on campus, another common thread was how *Pokémon Go* became part of the experiential fabric of visiting a new or unfamiliar city; in these cases, participants’ experiences were often mediated through the app. Peter had recently travelled to Latin America and had used the game to guide his exploration:

“I love it when I’m travelling. When I was down in Ecuador over the summer ... I just followed—one night I would go in this direction, so I just followed all the stops out that way, and then the next I would go another direction.”

Pokémon Go was a common tool for participants getting to know or explore a city while travelling, and it often curated players' experiences and even helped orient them to these new environments. Though the game map does not contain street names, Kelly found the game interface useful for navigating new environments. Pokémon and items acquired on trips also had in-game value. One such example is the "gifts" that players can receive from spinning Wayspots. Gifts bear the name, image, and location of the stop from which they are collected. Their purpose is to be sent to a player's in-game friends. These gifts were a way for players to share the places that they visited while travelling:

"Everyone on my friends' list ... they'll get something [while I'm traveling]. If there's like a really cool or unique [Wayspot], I'll save that one for my fiancé... There was a stained-glass wall at the building we went to ... and it was just a pretty one, so I think I sent him that one first when I was there."

While Kelly wanted to share the places she visited with all her in-game friends, she wanted to first share them with her fiancé. This demonstrates the continuing importance of social connections in placemaking (Denyer-Simmons, 2016; Vella et al., 2019), but also that players do not need to be playing *together* in the real world, or even simultaneously, for social connections to impact gameplay.

In addition to sending gifts from places she travelled to, Kelly enjoyed sending gifts to her friends from locations with names she found funny, such as the Backside Statue. While gifts were a way to share the places a player had visited, Kelly also kept Pokémon from every location she travelled to as a "Pokémon journal or diary of where I've been at what time." In this way, Pokémon became important not just for their in-game value as fighters or collectables (in the spirit of the franchise's catch phrase, "gotta catch 'em all!"), but also as an archive of place.

As explored by Denyer-Simmons (2016) and Vella et al. (2019), the game's social features are an important part of its capacity for placemaking. Denyer-Simmons (2016) argues that social interaction arises from the game's use of place. The game attaches meaning to particular locations and encourages players to visit them. This creates social hubs for playing that lead to social interaction between players. Some of the most memorable experiences for participants involved some aspect of group play or community. Several game features either incentivise or necessitate playing with others; for instance, in order to catch a rare legendary Pokémon, multiple players must coordinate a raid to battle and defeat it. The game does not have any native chat features, so players must find alternative ways to coordinate with others. While one option to address this challenge is to coordinate within one's social circle, this is not always possible, particularly during solitary experiences such as the commute. Thus, a number of communities around the world have set up virtual communities on third-party chat apps (such as Discord) to coordinate raids with other nearby players. However, only one participant was actively using this tool. Most other participants were part of group chats with smaller communities of players they already knew or had met through the game, such as a group of student friends who played on campus together, or a group of people who lived in the same apartment complex.

One participant, Joanne, did not have a group of players that she coordinated with. Her best memory of playing was during raids for the legendary Pokémon Mewtwo, when she went to campus and was able to find a group of strangers with whom to raid:

“There was [a raid] every 40 minutes or one every hour... it was nonstop on campus, and it was with a group ... of us walking from each place. I thought that was *so fun*, and I think I must have done five raids that day That would be my best memory of playing.”

Because Joanne almost always played alone or with just her partner, she was usually unable to obtain the legendary Pokémon that are only found in raids. Joining a large group enabled her to have a new gaming experience. Though the social interaction did not lead to new friendships, nor change how Joanne played the game, it was her favourite session of gameplay to-date.

Another common memorable experience for participants included taking part in one of the various “Community Day” events—monthly events each celebrating a particular Pokémon, where players are able to get Pokémon with event-exclusive battle moves. For some participants, these were opportunities to get together with friends and explore as a group. Playing with others means sharing knowledge of strategy as well as of place; in these contexts, players share their place knowledge with one another and take others to places they have not been to before. In Sonja’s case, her most memorable session of play involved a Community Day event where she and her friends played on campus for six hours, catching Pokémon, scanning the map for Team GO Rocket, giving advice to one another on which Pokémon are best to defeat different opponents, and taking one another to different spawn points that they knew of.

Through these interactions, players are able to develop new knowledge of place, and these experiences in place can facilitate placemaking. The game world reads as a palimpsest for the real world, but the text written on this palimpsest has no limits, as the game is technically playable anywhere. Players familiarize themselves with different parts of the text, and as Sonja indicates, when players come together they share their knowledge of various passages and lead their friends to new places. Much like Sara’s experiences with the Tin Woman statue, these places can be made meaningful, both in-game and among friends.

Due to the public and communal aspects of the game, *Pokémon Go* has the potential to have social and physical impacts that extend beyond the game world and the players that engage with it (Liberati, 2018; Mizer & Miracle, 2016). The game’s capacity to influence how players occupy space can have consequences on not just the space itself but on others occupying or passing through that space. Liberati, for example, notes how players’ changing movements could cause traffic jams in places that were not designed to support large groups of people. In my experience as a player, this is an issue in some contexts on campus, particularly when players congregate indoors during the winter in narrow hallways, or outside buildings on narrow walkways. While no participants mentioned this issue in relation to campus, several participants mentioned being part of large groups of players in urban settings. Peter spoke of a recent trip to Japan, where he noticed a large group of players while in a major city. He joined the group for several raids. Sara noted that when she was playing once in Toronto, she joined a group of about one hundred players walking from

gym to gym doing legendary raids. In these examples, large groups of players overwhelmed local areas, presenting navigational challenges to non-players in the same space.

Peter also referenced a particular example of players having a negative impact on the physical world. While most participants discussed what they considered to be generally “respectful” conduct by other players, Peter spoke about the negative effects that players had had on a local cemetery. When asked what he did not enjoy about playing or raiding with strangers, he mentioned “the issues around not respecting property”:

“They’ve tried to shut [gameplay in the local cemetery] down. They’ve actually removed all the gyms there now because people were ... disrespecting or driving over areas that they weren’t supposed to.”

Such damage is not limited to physical damage in these contexts; damage done to a cemetery can have an impact on the people who have personal connections to that cemetery. In the nearby city of Hamilton, City Council formally requested that Niantic Labs remove all 67 of its municipal cemeteries from the game (Van Dongen, 2016). Other relatives of deceased people whose memorials have become Wayspots have requested that Niantic Labs remove these memorials from the game as well (Hudes, 2016). However, the inclusion of memorials in-game is not always received negatively. I recently met someone whose daughter died in 2018. I shared with them that I had found a memorial for their daughter because it had been turned into pokéstop. The parent was unaware of the pokéstop and said they appreciated hearing from people about how their daughter’s memory was being kept alive. The daughter’s commemoration in the real world had been translated into the virtual world, and thus became part of my experience of place; changing what I knew of the location and having an affective impact on a location that had previously existed as a non-place to me before I looked at it through the lens of *Pokémon Go*.

The game’s capacity for placemaking arises from how it enables players to see different parts of their surroundings, encourages them to go further and visit new places, assigns value to locations, and encourages social interaction and play in place. Denyer-Simmons (2016, with reference to the work of Applin & Fisher, 2011) argues that the placemaking capacity of *Pokémon Go* comes from how it enables players not just to consume places but to also make and share places. This making and sharing comes from how AR technologies influence both place meaning and places themselves through the actions of players. Since 2016, the ability of players to make and share places in-game has increased, through Niantic Labs’ crowd-sourced Wayspot submission and approval system. This means that players have an increased ability to participate in placemaking in-game, and also signifies a greater potential for players to encounter and deploy Niantic’s spatial framework.

Niantic’s official guidelines for what makes a place worthy of inclusion in-game encourage the submission of permanent, public landmarks that are culturally or historically relevant (Niantic, n.d.). Value is placed on locations that are educational, unique, aesthetically appealing, and accessible to pedestrians. They also encourage attractions that are “off the beaten path” and hyperlocal. Players submitting a potential Wayspot must take photos, add a name and description, and explain how it meets the criteria for acceptance. Submissions are then evaluated by other players through the review platform for conformity to these criteria.

Participants were asked if they had ever submitted a Wayspot or had considered spots for future submission. Only one player, Peter, had submitted something—a small business owned by a friend. While he said he and his friends submitted it “as a joke” for the friend because new Wayspots were “popping up all over the place,” Peter also noted that “it would be great for her [businesswise], and I think she would really enjoy that.” He also noted that having a stop for the business “would give me a reason to go see [her].” By submitting the location for inclusion in the game’s digital palimpsest layer, Peter turned a place for himself into a potential place for others. Furthermore, though it was already a place for him, by making the store part of the hyperreality he also turned it into a place *to go*—indicating that even though it had meaning to him before it was submitted, incorporating it into the game world might make him more likely to visit.

Other participants said that they would consider submitting stops that would allow them to play the game closer to home. Residential areas are notoriously poor places to play *Pokémon Go*, as few Pokémon spawn and there are generally not many Wayspots. Multiple participants had identified nearby parks that they could potentially submit. Joanne wanted to put in a Wayspot at a playground near her home, as having a stop nearby could make gameplay more convenient in the winter. In addition to the gameplay advantages of having a stop close to home, she also thought that it might be a convenient spot to meet other players—noting the potential of this Wayspot to turn into a gameplay hub. Sonja noted that there were very few Wayspots in her small hometown, and had identified several locations that could eventually be submitted. The lack of Wayspots in her town meant that it was harder to play there, so submitting spots would make the gameplay experience more enjoyable when she went home.

Some participants felt unsure as to what they might submit, referring to Niantic’s requirements for historical or cultural significance. Kelly in particular stated,

“You’d want to pick something for a reason ... for example, [a local business] is a really cool local business, but they already have a stop, so I can’t submit a new stop for them ... it would have to be something like that, that I find really interesting or a place I like going to that’s not already a stop.”

For Kelly, any potential submission must already be a place for her in order for her to submit it. However, the fact that Kelly had not yet submitted a stop should not be taken as disinterest in participating in digital placemaking in-game. On the contrary, the quote above illustrates how Kelly is already thinking about place using Niantic’s spatial framework.

Discussion: The Palimpsest

Pokémon Go creates a layer of meaning transposed on the real world, resembling an ancient manuscript where fragments of the previous iteration can be seen showing through. The game curates a map of POIs based on landmarks in the real world, according to its own logics of historical and cultural significance, issuing a reiteration of place and constructing its own layer of meaning.

This reiteration permeates many areas of life and has the power to influence patterns of movement and behaviour for players. It directed participants’ attention to previously unnoticed objects in the landscape and established a shared understanding of the names and meaning of these POIs. This

layer of the palimpsest has the power to influence the value of places for participants. In particular, it influenced the value of spending time in and exploring natural spaces—albeit curating this experience in reference to built locations within the natural environment, and limiting this experience to particular types of natural spaces.

In general, the game mechanics encouraged players to visit new places. The *Pokémon Go* layer of the palimpsest also became part of the experiential fabric of visiting a new city. Players could share that experience with others, as well as chronicle their own travels. Some of the best memories players had involved playing with others, and these social experiences are a key way to place knowledge is shared. It is also a way in which social hubs are created, and this can influence the way that both players *and* non-players experience a space. This can lead to negative consequences for those sharing spaces with players, or for those who have a connection to these spaces. However, these experiences are not universally negative.

Many participants considered submitting Wayspots that were closer to home, which would allow the game to permeate their lives even more. They demonstrated an awareness of what makes a potential Wayspot worth submitting, showing that the logics which organize POIs in *Pokémon Go* can influence how players relate to and evaluate space in the real world.

The impact of *Pokémon Go* on place meaning is an important consideration for understanding how public meaning of place is shaped through systems of power. By examining the layers of a palimpsest, we can see where power lies in place. For example, Cristiano and Distretti (2017) note how *Pokémon Go* can legitimize a particular cultural or group heritage over others in places where the control of public space is a contested ground (see also Carter, 2014). It is thus important to consider what groups have access to the resources to memorialize their presence, and what groups memorialize in ways that are more consistent with Niantic Lab's guidelines for Wayspots.

In the case of Guelph, the University campus is located on the territory of the First Nation of the Mississaugas of the Credit. Indigenous histories and knowledge are archived in the geographical landscape, as well as the plants and animals that exist in their traditional lands (Lepofsky, Armstrong, Greening, Jackley, Carpenter, Guernsey, Matthews, & Turner, 2017). Such features, while historically and cultural significant to the area's first inhabitants, would not meet the standard for permanence set by Niantic Labs for Wayspot submission, and would not appear in-game. As participants indicated, playing *Pokémon Go* helped them to learn about and even navigate new places on- and off-campus. The way that the game curates knowledge of place has ramifications for participants' sense of place; when particular ways of knowing are excluded from memorialization in-game, *Pokémon Go* serves to inform users of significant locations in a way that legitimizes settler colonialism and ignores subaltern ways of knowing (Cristiano & Distretti, 2017). This advances the legitimation of settler colonial occupation by reinforcing colonial ways of knowing place and by obscuring Indigenous place knowledge. While perhaps not an explicit intent of the game designers, the logics that have been applied to the game have their roots in settler colonial ways of knowing place. In practice, these logics reify settler colonialism by amplifying settler colonial place meaning, obscuring Indigenous ways of knowing place, and recognizing the legitimacy of western styles of memorialization over others. When settler colonialism is conceived of as "a structure, not an event" (Kauanui, 2016; Wolfe, 2006), *Pokémon*

Go can be understood to be entangled in this ongoing structure and project of permanent settlement.

Players are also involved in the ongoing creation and maintenance of Wayspots. Only one participant in this project indicated that they had submitted a place for consideration as a Wayspot, and no players indicated that they were involved in approving potential submissions on the game's review platform. Thus, it is not possible to discuss the experiences of players in creating and enforcing Niantic's criteria for what makes a valid in-game place. However, the active role of players in creating new in-game places and enforcing the rules for what makes a valid place is deserving of further consideration.

In the context of a University campus, many buildings and other memorials are named after those with power and influence. Thus, it is vital to consider how the palimpsest is reinscribed by those with the resources to shape the built environment. We should not ignore the potential of AR technology to significantly impact how we come to know place; in particular, how the biases coded into this technology might subjugate subaltern narratives of place.

Signifying an understanding on Niantic Lab's part of the power of turning something into a Wayspot, in the Summer of 2020, one Reddit user noted that several Wayspots in their local community had been removed shortly following a protest against Confederate memorials—these Wayspots had been created for the park, which had a Confederate namesake, as well as for a Confederate statue within the park (Windfireandice, 2020). Soon after, a Niantic Labs employee confirmed that the company was indeed removing a number of Wayspots related to the Confederacy because they “do not provide an inclusive environment for our community” (NianticCasey-ING, 2020).

Liberati (2018) notes that while the virtual world of *Pokémon Go* only exists in-game, the game's logics concerning what can be considered a ‘significant’ location can have impacts on the real world. The game is able to influence how people navigate and congregate, in ways that can directly impact others that occupy these same spaces. However, the work of Cristiano and Distretti (2017) reminds us that these decisions are not neutral; the politics of what becomes a site of historical or cultural significance, and the logics behind what can be considered historic or cultural, are entangled in systems of power, wealth, and beliefs.

Conclusion

The results of this small-scale study demonstrate that *Pokémon Go* can have a profound impact on how players see, relate to, and inhabit spaces. It can also have tangible impacts on the real world and on the lives of non-players. I liken the impacts of *Pokémon Go* to a layer in a palimpsest—a reiteration of the real world that encourages particular patterns of mobility, ways of understanding and occupying space, and ways of interacting with others, based on its own logics as to what is culturally and historically relevant. As *Pokémon Go* prioritizes permanent landmarks over other forms of in-situ knowledge, *Pokémon Go* can amplify the logics and power structures that delegitimize certain knowledges, such as Indigenous ways of knowing place. Conversely, through examining the gaps in representation in the palimpsest, we are able to see how power constructs narrative and use the palimpsest as a tool for examining injustices in society.

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¹ In this paper, I use *place* to denote “a framed space that is meaningful to a person or group over time” (Thornton, 2008, p. 10). Place “carries ... sentiments of attachment and identity that emerge out of lived experience” (Aucoin, 2017, p. 395). In contrast, I use *space* to denote generalized areas that have not become distinguished as a place (Aucoin, 2017)—at least, not in the context under consideration.

² I use the term *real world* to describe the physical surroundings and the term *virtual world* or hyperreality (Cristiano & Distretti, 2017) to describe the digital landscape in which Pokémon Go exist. In using the term *real*, I do not wish to imply that virtual worlds are any less real.

³ At least in theory, the game can be played anywhere. In practice, game playability is limited by restriction on players’ mobility (Cristiano & Distretti, 2017; Menely, 2019); by available mobile internet and data connection (Cristiano & Distretti); and by the presence of pokéstops (Bogado, 2016; Leins, 2017).

⁴ The game’s emphasis on player mobility has been criticized as early as 2016 for excluding people with physical disabilities from playing (Bogado, 2016). It is notable that mobility concerns were only addressed when the advent of the COVID-19 pandemic prevented many players from leaving home.

⁵ Serendipitously, the origin of Pokémon lies in the Japanese past-time of bug collecting (Miracle, 2014).