

Locative Media and Narrative in North American Literature and Culture

By

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To a Friend, who left us too early

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ABSTRACT

This Ph.D. dissertation undertakes the investigation of locative media from a narrative perspective within the context of North American Literature and Culture. The emergence of locative media in the beginning of the twenty-first century marked a shift in the ways in which physical, digital, and narrative space can be perceived. This doctoral project explores the effects of locative media on narrative production, intending to bring to the fore different manifestations of the convergence of locative media and narrative practice across print and digital media. Through the examination of fictional and non-fictional texts produced by North American authors and practitioners, this dissertation explores the affordances and limitations of locative media as well as the impact of these newly-emergent technologies on the reading and narrative strategies that participants are invited to develop. The first chapter examines print manifestations of locative media in William Gibson's fictional texts, *Spook Country* (2007) and *The Peripheral* (2014); in the second chapter emphasis is placed on Eli Horowitz, Kevin Moffett, and Matthew Derby's *The Silent History*, which features as both a mobile app (2012) and a print novel (2014), as well as on two site-specific sound-walks, *Times Beach* (2017) by Teri Rueb, and *Fens* (2017) by Teri Rueb and Ernst Karel, situated in Buffalo, New York, and Boston, Massachusetts respectively; while the third chapter concentrates on Niantic, Inc.'s locative game, *Ingress* (2012-). These texts constitute case studies that shed light on the innovative contribution of locative media, when examined within the framework of narrative and new media theories, to the ways in which the concepts of textuality and narrativity are perceived.

Keywords: locative narratives, spatiality, hypertext, gaming, North America, literature, culture.

INTRODUCTION

The visual intensity that characterizes print and digital manifestations of locative media as well as the links that can be established between technology, narrative, and space is what has prompted the current doctoral project. Its source of influence should be traced to William Gibson's literary works and comments regarding the evolution of cyberspace and its transformation in the late 2000s and 2010s into a diversified locative hybrid environment. In addition, the attention of my M.A. thesis to hyperfiction and its role in the reconfiguration of the notions of readership, authorship, narrative, text, and plot, has served as a point of departure. The above ideas have gradually paved the path to the present Ph.D. dissertation which constitutes a combination and extension of all these observations about technology, space, and narrative.

The current research project aims at investigating the ways in which new media technologies challenge, revolutionize, and reconfigure the concept of narrative. In the first two decades of the twenty-first century, mobile and locative media technologies have signalled a major shift in the way we perceive and experience physical, digital, and narrative space. The three chapters that follow constitute an attempt to record the effects that mobile and locative media have had on literary production by focusing on particular texts (print and digital) as well as on online gaming and locative media projects by North American authors and practitioners with a view of exploring what happens to narrative practices when literary practice, locative media, and mobile technologies converge. Some of the key terms to be discussed in this project are (location-based) narratives, spatiality, hypertext and gaming. The present Ph.D. dissertation attempts to draw on various theories within the broader context of narrative theory and new media in order to explore mobile and locative media experimentations as well as the innovative contribution of locative media to narrative studies.

The theoretical discourse that sets up the background of the present dissertation is the one of new media in relation to location-based and mobile media technologies. Locative media is a new field that has emerged from the recent conversation between developing disciplines in the area of urban studies, digital literary studies, and cultural studies. Coined in 2003 by the new media artist Karlis Kalnins, the term “locative media” refers to location-aware and mobile technologies, and, more specifically, “to mobile media works which attach themselves to real located places and communities and their geographical coordinates” (Ladly 80). According to Rita Raley, locative media as a “practice, [...] emerges from the convergence between site-specific, conceptual, participatory, and land art practices and the widespread use of functional global location data” (“On Locative” 125). Indeed, the popularization of the Global Positioning System (GPS) has marked the introduction of location-aware technologies, which has “reshape[d] everyday methods and modes of navigation and related spatial perceptions” (Rueb “Restless” 250), as will be explained further down.

The most recent publications in the field of locative media are Rowan Wilken’s *Cultural Economies of Locative Media* (2019) and Wilken et al.’s edited volume entitled *Location Technologies in International Context* (2019). The first one investigates the cultural and political implications of locative media in an attempt “to view [it] in all its industrial, end-user, and regulatory complexity” (Wilken 14). In particular, Wilken is interested in “the business side of locative media,” while also exploring “artistic and everyday cultural practices involving [these] technologies” (18). As mentioned above, my contribution with the present dissertation is to discuss locative media from a narrative viewpoint, which is not the aim in the above publications. The authors of the second publication suggest that locative media should be viewed from a much broader perspective, that is “outside of established Anglo-American and European contexts” (Wilken et al. 4). They thus highlight the need to “‘internationaliz[e]’ the study of location technologies” in an attempt “to construct a fuller, more truly global,

composite portrait of the present state of location technologies internationally” (5). Indeed, this volume “offers the first international account of location technologies (in an expanded sense) and brings together a range of contributions on these technologies and their various cultures of use within the Global South” (Wilken et al.). Although this doctoral project does indeed draw upon the works of specific North American writers and practitioners, it needs to be emphasized that these works have been very influential in the development of the innovative field of locative media. Specifically, after the popularization of GPS-enabled smartphones in the 2010s, American authors, practitioners, and even gaming corporations, have been experimenting with locative media narrative. The consideration of Wilken et al.’s need as mentioned above to “‘internationaliz[e]’ the study of location technologies” (5) has turned the attention of the present dissertation to works that are U.S.-based or created by American authors and artists. The aim has not been the preference of certain authors/practitioners over others, but the commentary on a constantly expansive terrain of action through the creation of works that have significantly impacted on the evolution and function of locative media as a global phenomenon.

At the start of the 21st century, early experimentations with locative media involved the production of locative games, which require the players’ interaction with real-world locations through the use of locative media technologies. Some of the first locative games, such as *Can You See Me Now?* (2001) and *Uncle Roy All Around You* (2003), were produced in Europe by the artist group “Blast Theory,” but also in the U.S. with *Geocaching*, which began in 2000 with the spread of the use of GPS. It is also in the U.S. that the first locative narrative was produced by Jeremy Hight, Jeff Knowlton, and Naomi Spellman, entitled *34 North 118 West* (2003).¹ Equipped with “a GPS-enabled tablet computer, headphones, and [a] [...] map of the [...] former railroad depot, currently being used by the Southern California Institute of Architecture” (Farman *Mobile Interface Theory* 123), the participants in this narrative are

¹ These projects are not going to be analyzed in the present dissertation.

“[i]nstructed to walk to hotspots that [trigger] narrative fragments spoken by voice actors,” and “[explore] the physical environment” (Raley 311). Another example of locative narrative in the 2000s is *[murmur]*, which aimed “to capture the genius loci of a city by collecting stories told by ordinary people about various places and by making them available in these very places through the user’s mobile phone” (Ryan, *Narrative as VR 2* 254). Although these stories are location-based, they are available online as well. Another locative media project that was launched in the U.S. is *The LA Flood Project* (2006), which “was designed to offer an augmented experience of the city as people moved through it, [...] ask[ing] participants to look at the landscape around them through imaginary augmented reality goggles” (Marino 298, 299). In all the projects already mentioned, the urban space is digitally augmented as it is filled with narratives waiting to be discovered by the participants in a constantly evolving urban topography. Location-based social networks (LBSNs), such as Foursquare, which are to be commented on in Chapter One, constitute another manifestation of locative media practice allowing people to share location information as well as attach information to specific locations.

The U.S. has been especially prolific in the field of locative media not only in the 2000s but also in the 2010s, significantly contributing to its popularization. The emergence of smartphone technologies and especially the integration of GPS technology in mobile devices in the late 2000s led to the commercialization and popularization of locative media projects in the 2010s.² For instance, the U.S. has recently been very active in the production of locative narratives and locative games that bear the form of smartphone applications, as verified by the texts to be examined in the present dissertation. In fact, the present doctoral project attempts to discuss some of the most characteristic (print and digital) manifestations of locative media

² Mads Haahr confirms that “[t]he widespread adoption of GPS-enabled smartphones that began in the late 2000s allowed locative media to transition from short-lived art and media experiments or pure performance pieces to become a mass medium. Hence, while locative media have existed for well over a decade, it is only within the last few years that they have become available to general audiences” (212).

technologies that have emerged in North America since 2007, such as locative art, (digital) location-based narratives, and locative gaming, something that also affirms the interdisciplinary nature of this project. To be more specific, the dissertation initially presents literary representations of locative and mobile media by the well-established American-Canadian author, William Gibson, who theorizes about these technologies through his fictional narratives. This enables the clarification of certain distinctive qualities, as regards the identity and status of locative media, since they constitute newly-emergent media technologies. At the same time, the dissertation examines how experimentations with locative media have resulted in the constant reconfiguration of the concept of narrativity, especially when texts are attached to physical space with the aid of these technologies (locative narratives), but also when locative media is used for the production of location-based games. Gibson's fictional visualizations of mobile media technologies are actualized if one considers the production of locative media narratives and games that revolutionize the concepts of textuality and space (Raley, "On Locative" 124). The cultural value of some of these locative media experiments is further highlighted when they are viewed in tandem with established literary genres and texts taken from the American literary and cultural tradition, as is the case with Gibson's texts, which is exactly where their original contribution lies. As will be shown further down, the other texts to be examined in the present dissertation are a novel entitled *The Silent History* (2011), two locative sound-walks, *Times Beach* and *Fens*, and the locative game *Ingress* (2012-). The main thread that connects all these texts is the argument that locative media shifts the ways in which we experience narrative space. This being the case, it is worthwhile to call attention first to certain books that lie at the background of the present Ph.D. research due to the important insights they offer into the central argument that rests at the core of this dissertation.

One of the edited volumes that constitute important stepping stones to the evolution of locative media in general, while shaping my argument in the current dissertation, is Rowan

Wilken and Gerard Goggin's *Locative Media* (2015), in which they utilize the term "locative media" in order to "capture the diverse array of location-aware technologies and practices" (4). The authors view locative media as an umbrella term in order to refer to "location-based experimentation with location and mobile devices across art, urban design, ubiquitous and pervasive computing, and strands of gaming cultures" (4). In addition, they acknowledge that "locative media are the harbinger of the emergent media of our time, from big data to drones, from the Internet of Things to logistics, all with their urgent cultural, social, and political implications" (2). These will be exactly the topics for discussion in the present dissertation, although they will be examined from a narrative point of view. This collection of essays constitutes an insightful introduction to the uncharted territory of this newly-emerging field. The collection calls attention to the social, political, cultural, and economic dimensions of locative media technologies in an attempt to investigate the impact these technologies have had on everyday practice and sociopolitical economy, also addressing issues, such as urban navigation and politics. Moreover, in their introduction to this collection, Wilken and Goggin provide an overview of the major historical developments in locative media practices since the 1990s with the emergence of the first "mobile social networking applications" (4). The 2000s also witnessed the proliferation of locative media experimentations, such as mobile annotation applications and projects and location-based games (4). While the importance of Wilken and Goggin's work rests on their extensive research of the current experiments with locative media, in this dissertation the major concern is to investigate locative media as a device for literary and narrative experimentation.

A number of Ph.D. dissertations have been particularly influential for this doctoral project. In *Textopia: Experiments with Locative Literature* (2011), Anders Sundnes Løvlie offers a rather practical approach to locative media through the construction and design of a media platform for the creation of locative literary texts. Locative literature, which, according

to Løvlie, “is not so much an established practice, as an idea or a vision for a new kind of literature – one which is written to be experienced through mobile, location-aware devices” (9), constitutes one of the byproducts of the fusion of locative media and narrative. The second dissertation, *Moving Circles: Mobile Media and Playful Identities* (2010), by Michiel de Lange, explores the ways in which mobile media contribute to the construction of identities, while the chapter on locative media concentrates mainly on the relationship between locative media, urban culture, and gameplay. In this light, the innovation of the current doctoral project rests on its focus on an interdisciplinary approach to locative and mobile media technologies as well as on its combination of literary and narrative theories with game studies. It constitutes an attempt to explore the potential of locative media through the examination of location-based narratives and games as well as printed literary texts, offering both a theoretical and a practical approach to locative media. Finally, another doctoral dissertation that has proven to be vital for shaping the argument here, particularly in relation to the second chapter, is Emma Louise Whittaker’s *Transitions-felt: William James, Locative Narrative and the Multi-stable Field of Expanded Narrative* (2016). This theoretical work helped me complement the argument in Chapter Two of this dissertation because it offers an insightful account of the ways in which locative narratives can be experienced. In line with the above, it needs to be stated that the present dissertation will not examine “locative literature” per se, to use Løvlie’s term, but will concentrate on the broader concept of “locative narratives” and the conceptualization of the different forms these may take depending on the medium through which they are presented or created as well as delivered. This being the case, the locative narratives to be examined here are remediated in printed form through Gibson’s fiction, or they are fictional and non-fictional narratives in digital form as well as locative narratives that emerge through locative gameplay. Locative narrative will thus be viewed as one of the most recent developments of locative media, which will function as a thematic bridge connecting new media and mobile technologies

with narrative and literary practice. To be more specific, locative media will not be regarded as mere “[p]ositioning technologies [that] are integrated in [...] mobile devices,” which are subsequently “used as interfaces to relate to physical places” (De Lange 27). Rather, they will be examined as an evolutionary step into the study of narrative and literature in conjunction with new media technologies.

Three seminal books set the ground for the discussion of locative media in this dissertation, with the first one being Jason Farman’s *Mobile Interface Theory: Embodied Space and Locative Media* (2012). Farman offers an incisive account of locative media, approaching it from a variety of perspectives, such as gaming and storytelling practice, social media and mapping technologies. Farman views ubiquitous computing, to be commented on in further detail in Chapter One of this dissertation, as the most important cultural shift taking place nowadays as a result of the pervasiveness of locative and mobile media technologies. Very effectively, he provides an overview of locative media experiments by shedding light on the ways in which mobile media practices reconfigure and redefine the notions “of embodiment and space [in] the mobile media age” (2). In fact, one of his major concepts explored in this study is how “social and embodied space” is produced “through practices with mobile technologies” (5). This is exactly what the current dissertation will seek to explore through the examination of both printed fiction and digital locative narratives and games, because light will be shed on how locative media practices affect the production of narrative space as well as on how readers interact with this space.

Such an emphasis on space in relation to locative technologies, and, more specifically, the redefinition of space and location within digital culture, and to an extent within literary practice, is one of the challenging issues this dissertation seeks to inquire. The first major shift in digital literary studies occurred in the late 1980s, since, as authors tried to adapt their fiction to the new digital reality, novels started becoming emphatically digital, hence the creation of

hypertext, hypermedia, and multimedia fictional works. In her article “Mobile Narratives: Reading and Writing Urban Space with Location-based Technologies,” Adriana de Souza e Silva calls attention to the next shift, known as “net locality,” which relates to “the way we interact with texts and narratives, which now become embedded in urban spaces via location-aware technologies” (34). In another study, entitled *Net Locality: Why Location Matters in a Networked World* (2011), which is the second seminal book that has shaped the argument in the present doctoral project, Eric Gordon and de Souza e Silva explain that net locality refers to the fact that “location-aware mobile technologies can change the way we experience both physical and digital spaces by configuring a new hybrid space, which is composed by a mix of digital information and physical localities” (56). In fact, the writers observe that “[w]e are experiencing a fundamental shift in the way we understand physical space,” since “[i]t is no longer independent from digital (networked) space” because “[t]he web is all around us” (172). These links the authors draw between physical and digital space address another point to be examined in this dissertation, namely the ways in which locative media can alter our perception of urban space. The concept of urban space will be viewed in conjunction with both locative storytelling projects and locative games, since this will facilitate the exploration of the ways in which physical, digital, and narrative spaces are transformed into readable, writable, and playable hybrid spaces. Finally, in this project attention is paid to the interrelationship of spatial hybridity and narrative in an attempt to investigate the ways in which urban space, and by extension physical space, as it features in both print and digital texts, can facilitate the conceptualization and perception of hybrid locative spaces. The examples the authors of *Net Locality: Why Location Matters in a Networked World* resort to derive from spatial-annotation storytelling projects and locative games produced in the 2000s. This constitutes an important point of departure for the present dissertation, which will discuss locative works that were

mainly produced in the 2010s, a decade that witnessed the popularization of the convergence of locative media and narrative practice in the U.S., as already explained.

Another point of departure for this dissertation is Jordan Frith's *Smartphones as Locative Media: Digital Media and Society* (2015), where he argues that "smartphones are examples of locative media" because "many smartphone applications add an important element to the way people interact with digital information[,] [which is] physical location" (2). In a similar way to the works mentioned earlier, Frith also notices that "the conceptual separation of the physical and digital into two separate spheres is untenable" because the two are merged due to the intervention of locative and mobile media technologies (3). In fact, the key idea connecting the topics that are discussed in this book "is the argument that smartphones as locative media have begun to shift how people experience physical place" (10). However, the approach in this dissertation differs from Frith's. Emphasis is placed here on the examination of the social impact of locative media technologies as well as on the utilization of a narrative approach for the discussion of the primary sources under consideration with the aim of shedding light on the storytelling potential of locative media. This has given me the opportunity to comment on the emergence of a certain kind of locative literary and/or narrative textuality that combines traditional print-centric with embodied ways of interacting with locative texts and hybrid urban spaces.

With regard to the edited volumes that have been highly influential for the current dissertation, it needs to be stated that in *Digital Cityscapes: Merging Digital and Urban Playspaces* (2009), edited by Adriana de Souza e Silva and Daniel M. Sutko, the merging of the physical with digital space is examined within the context of locative games, in which "communication, collaboration, and social interaction occur in a combination of the physical and the digital" (1). The authors offer "a broad overview of the emerging field of location-aware mobile games" (8), thus reflecting on the social, spatial, and playful effects of locative

technologies. Being “one of the first scholarly works to map” out the emerging territory of locative games (15), this edition lays the basis for the examination of locative games. The book theorizes about locative games as well as focuses on their design fundamentals, while also emphasizing the educational aspect of locative gaming. The difference between this volume and the present doctoral project is that the latter adopts a narrative lens while examining locative gaming in an attempt to underline the literary and narrative elements of the gaming aspects under examination here. The storytelling potential of locative gaming will also be explored in order to investigate the different forms of (locative) narrativity that emerge from the players’ interaction with locations while playing.

With all these convergences falling under the umbrella of digital literary practice, one should also consider another collection of essays, with the title *Interactive Digital Narrative: History, Theory and Practice* (2015), edited by Hartmut Koenitz et al. Although it does not concentrate solely on locative media but on the broader context of digital media, this collection deals mainly with the connection that there is between narrative and interactive digital media, while also studying and anticipating some of the possible future directions the latter may take in relation to narrative, as is for example the exploration of media experimentations with narrative in videogame poetry, hyperfiction, digital games, and location-based texts and games. Some of the articles contained in this edited volume will be used in the analysis of the texts to be explored in this project in order to highlight the effects of locative media experimentations on narrative practice.

Farman’s edited volume entitled *The Mobile Story: Narrative Practices with Locative Technologies* (2014) has also shaped my argument in the current dissertation. Farman stresses that “[e]merging storytelling projects offer some of the best examples of the transformative potential of mobile media” as well as that “[t]he projects discussed in this book typically take the mobile device out of the realm of the everyday and insert it into practices that reimagine

our relationship to technology, place, and our own sense of self in the spaces through which we move” (“Site-Specificity” 5). These are the exact changes in the ways of approaching mobile and locative media that the current dissertation will attempt to highlight by reading the works to be analyzed here across print and digital/locative media, in an effort to reveal the potential and limitations of locative media technology as a narrative medium.

Some of the research questions that have prompted this doctoral project are expressed by Farman in his introduction to this edition. In particular, he enquires the following: “Since mobile media are becoming the most pervasive technology on the face of the planet right now, how does such pervasiveness change the ways we tell stories and read stories? Is there a difference between reading a story on a mobile phone versus a tablet computer versus a PDF file?” (“Site-Specificity” 8). These are the kind of questions this dissertation will attempt to answer by adopting a reading that will focus on the storytelling potential of the works under examination here, while underlining their literary and narrative elements. Farman continues, addressing the limitations of “narrative” and “story” when they intersect with mobile media: “the idea of ‘narrative’ itself is rife with problems because it tends to put forth an idea of a cohesive, linear story about a site, an event, or a community[,]” but also “[t]he act of storytelling can be constrained by such challenges and can often be maneuvered into presenting a narrative that has a distinct beginning, middle, and end” (9). Farman investigates the ways in which locative and mobile technologies shape the future of storytelling, exposing multiple “storytelling practices, most of which embrace the subjective experiences of the storyteller and reader” (9). This dissertation constitutes an attempt to respond to the prompts of this collection of essays, since locative media enables the exploration of an interesting facet of literary and narrative practice. In particular, locative and mobile media reformulate the ways narrative is presented in mobile media interfaces, as they initiate changes in the literary techniques and

narrative devices used in locative texts. Thus, the intention in this dissertation is to examine locative and mobile media in relation to and juxtaposition with literary and narrative studies.

In fact, locative and mobile storytelling demands a different kind of perception of and a much broader approach to narrative. While Farman does emphasize “the subjective experiences of the storyteller and reader” (9), as mentioned above, H. Porter Abbott in *The Cambridge Introduction to Narrative* (2002) adopts a “larger definition of narrative” (13), acknowledging in a similar manner that defining whether or not a text should be considered a narrative is an essentially subjective process. Indeed, he notices “that there are, and will always be, gray areas in a field like narrative that has so much to do with subjective human response” (23). This dissertation aims at bringing to light some of these “gray areas” when it comes to determining the extent to which certain texts that are generated via locative means can be regarded as narratives, since this facilitates the exploration of the effects of locative media technologies on narrative practice.

However, Abbott’s observations are taken a step further by Marie-Laure Ryan, who also calls attention to this subjective aspect of narrative. She claims:

When we are presented with a text of unknown origin, and asked: ‘is this or isn’t it a narrative’ [...], we may diverge in our answers, but this does not mean that some of us are right and some of us are wrong (unless of course we blatantly misread the text), because we apply different criteria of narrativity, and because we can decide whether or not the text fulfills these criteria by paying attention to what it says. (“Towards” 32)

In a similar way to Abbott, Ryan also proposes a “broade[r] conception [of] narrative,” defining it as a text that “evoke[s] in the mind of the receiver a certain type of representation known as ‘story’” (“Narrative” 518). Additionally, Abbott claims that “[n]arrativity is a matter of degree” (25), while Ryan avoids viewing “narrativity as a strictly binary feature, that is, as a property that a given text either has or doesn’t have” (“Towards” 28). In her attempt to define narrative,

Ryan devises “a scalar conception of narrativity,” categorizing texts according to their “degree of narrativity” (“Narrative” 518-19; “Towards” 30). In fact, she differentiates between the conditions of “being a narrative” and “possessing narrativity,” emphasizing that texts can have different degrees of narrativity depending on their ability to “evok[e] a narrative script in the mind of the audience” (Introduction, *Narrative across Media* 9).³ This is exactly the lens through which the texts to be examined in the present dissertation are going to be approached, as each one displays different degrees of narrativity, pushing the limits of narrative while allowing the appreciation of the innovative ways in which locative technologies can be used to produce narratives.

This being the case, Ryan is the key theoretician who has inspired the research undertaken in this doctoral research project. Her two collections, *Narrative across Media: The Languages of Storytelling* (2004) and the one co-edited with Jan-Noel Thon, *Storyworlds across Media: Toward a Media-Conscious Narratology* (2014), concentrate on “the new directions that the study of multiple medial incarnations of narrative has taken” (Introduction, *Narrative across Media* 1), emphasizing the cross-fertilization of media studies and narrative studies as a result of the convergence of digital media and literary practice. Therefore, one of the main arguments which should be of value here is that digitality and media convergence have not only challenged the form and presentation of narrative, but also they have changed the ways in which narrative can be conceived of and experienced among different media. As for literary writing, it does shift attention from a print-centric narrative practice to a more dynamic digitally-driven locative narrative textuality. Elsewhere, Ryan comes up with the following broader definition of narrative: “As a mental representation, story is not tied to any

³ Interestingly, in her more recent article, “Narrative,” Marie-Laure Ryan expands the concept of narrative even more, contending that “[o]nce stories are decoupled from text, [...] the door opens for all sorts of metaphorical expansions, since the label ‘narrative’ can now apply to invisible, elusive representations that exist only in the mind. These expansions make narrative into a highly versatile tool that can be applied to many disciplines and problems, but they also run the risk of stretching the concept too thin” (526).

particular medium, and it is independent of the distinction between fiction and nonfiction. A definition of narrative should therefore work for different media (though admittedly media do widely differ in their storytelling abilities), and it should not privilege literary forms” (“Towards” 26). This definition suggests “a type of meaning that transcends disciplines and media” (Ryan et al. 226), rendering narrative an all-inclusive term that may characterize different types of textuality. The investigation of different textualities that emerge from the intersection of locative media technologies with literary practice rests at the center of the current dissertation with the aim of contributing to the examination of the storytelling potential of locative media.

Two significant concepts that need to be taken into account when examining the works to be commented on are those of immersion and interactivity, as brought forward by Ryan’s theoretical works. In *Narrative as Virtual Reality 2: Revisiting Immersion and Interactivity in Literature and Electronic Media* (2014), Ryan “transfer[s] the[se] two concepts [...] from the technological to the literary domain,” aiming “to revisit print” literary narratives “in terms of the concepts popularized by digital culture, and, conversely, to explore the fate of traditional narrative patterns in digital culture” (2). The current doctoral project suggests possible ways in which immersion and interactivity can be revisited in order to discuss, on the one hand, the locative hybrid spaces that are represented in the print narratives to be analyzed, and, on the other hand, digital locative narratives, which enables one to see how these two concepts are reconfigured and re-appropriated when viewing them in tandem with locative and mobile technologies. Actually, the types of narratives brought together in the current project pay attention to the ways in which the readers interact and immerse themselves in the hybrid spaces generated by locative media.

Consequently, space and location serve as key concepts on the basis of which the different representations of narrative are discussed in the current project. Ryan et al. refer to

these notions in the book, *Narrating Space / Spatializing Narrative: Where Narrative Theory and Geography Meet* (2016), where they concentrate on the cross-fertilization of narrative theory and geography, highlighting the ways in which space and narrative intersect. The authors investigate spatial representations and “the role of space in narrative” as well as “how some narratives use space as a medium through the disposition of their inscription in physical objects and locations” (2). The connection that the authors in this book attempt to establish between narrative and space facilitates the argument that this doctoral project tries to articulate in the works to be analyzed in an effort to emphasize the intersection of locative media and narrative.

Considering this connection alongside these texts, one can realize that there are two ways in which narrative and space converge in the present dissertation under the lens of locative media technologies. In particular, emphasis is placed on what Ryan et al. call “narrative space,” in other words the “storyworld” or “the space (and the places) providing the physical environment in which the characters of narrative live and move” (3). This doctoral project will focus on this kind of space by calling attention to how narrative describes hybrid locative spaces that are both digital/virtual and physical. In Ryan et al.’s words, it will show “how narrative resources are used to guide [the] perception” of these spaces as well as “the symbolic/functional perspective of [their] role in the plot” (3). This observation reveals that narrativity and textuality function as a way to remediate the effects of locative technologies on the concept of space. At the same time, attention in this project is paid to “[t]he space taken by the text itself” through the examination of “narratives that move off the page and screen entirely and are positioned in the environment,” which “involves issues of spatial form that are different from those involved in using books, e-books, even computer screens for storytelling” (Ryan et al. 5). Even though Ryan et al. refer to both digitally-generated location-based narratives and other kinds of (non-digital) site-specific narratives, the present dissertation concentrates mainly

on the former kind of narratives, while attempting to illustrate possible ways in which these two narrative types — digital and non-digital — can be combined in order to create a multi-layered narrative experience.

Having said all this, I do not intend to follow here a single-authored methodology. Rather, I concentrate on multiple American authors and practitioners whose works exist in various manifestations, that is both print and digital, thereby adopting a multidisciplinary approach to locative media. The primary sources to be analyzed in this dissertation will be drawn from three different genres/narrative pools: print novels, locative narratives, and games. The works to be discussed are not going to be examined in a chronological order, but a thematic approach will be adopted. The significance of such an approach lies in the fact that it studies mobile and locative media from multiple perspectives, which is crucial for examining how each one of the different genres/narratives is affected by locative media practice. The authors and practitioners studied in this dissertation are selected on the basis of their ground-breaking work, which has paved the path for further experimentations with narrative in the field of locative media and has had an impact on the cross-fertilization between locative media and narrative. The limited number of published works of criticism that comment on the interconnection of mobile and locative media with narrative has prompted the critical approach adopted in this dissertation.

Chapter One sets the background where the discussion of experimentations with locative media technologies originates from in an effort to record, represent, and remediate in literary printed form the effects of these technologies on the ways in which space can be perceived. This chapter will focus on a close textual analysis of William Gibson's print novels, *Spook Country* (2007) and *The Peripheral* (2014), which function as cases studies through which locative media can be explored. Gibson has commented on the evolution of cyberspace and its transformation in the late 2000s and 2010s, arguing that “[c]yberspace, no not so long

ago, was a specific elsewhere, one we visited periodically, peering into it from the familiar physical world. Now cyberspace has everted. Turned itself inside out. Colonized the physical” (“Google’s Earth”). Gibson’s idea that digital space has invaded physical space to the extent that the two have formed a diversified locative hybrid space is what unites all the notions to be tackled in the present chapter. This being the case, I consider his latest novels, *Spook Country* and *The Peripheral*, hugely influential in the emerging field of locative media, since in these novels the idea of hybrid space is viewed through the lens of locative and mobile media technologies. Although the connection between Gibson’s fiction and locative media is not entirely new, since Gordon and de Souza e Silva also call attention to Gibson’s *Spook Country*, the analysis provided here constitutes an attempt to approach locative media practice from a literary as well as print-bound perspective. Written a few years later, *The Peripheral* successfully captures the latest developments and the potential of locative media as well as its effects on spatiality, identity, embodiment, and everyday life. Gibson’s innovative contribution to the re-conceptualization of new media lies in the fact that, thirty years after his first novel, *Neuromancer* (1984), he is, once again, the first one to re-invent and approach the very possibilities of new media technologies from a literary perspective. This chapter constitutes the theoretical backbone that allows for certain ideas and notions, namely hybrid space, to develop in the chapters to follow, always in relation to locative and mobile media technologies. As there has been limited scholarly work published on these two novels, there is room for further exploration especially when these are analyzed and discussed within the context of locative media and narrative practice.

Chapter Two examines the ways in which fictional and non-fictional locative narratives challenge and subvert traditional reading practices that are associated not only with print, but also with e-book and audio book technologies. In the first section of this chapter, the text to be analyzed is *The Silent History*, a novel by Eli Horowitz, Kevin Moffett and Matthew Derby,

consisting of a main narrative that features as both a mobile app (2012) and a print novel (2014), but also of field narratives that are situated in different locations around the world and can only be accessed at those locations through GPS-enabled mobile devices. *The Silent History* (2011) was selected because of it being “the first novel built fully into a mobile app,” as is stated in *The Norton Anthology of American Literature*. Additionally, it constitutes an attempt to integrate traditional print-centric narrative forms with more dynamic ones with the attachment of locative narratives to various locations around the globe.⁴ Moreover, two site-specific sound-walks, *Times Beach* (2017) by Teri Rueb, and *Fens* (2017), by Teri Rueb and Ernst Karel, situated in Buffalo, New York, and Boston, Massachusetts respectively, constitute effective examples that combine narrative with sound, mobile media, and GPS technology. Rueb is a known locative media artist who has been experimenting with these forms since the late 1990s, well before the popularization of the GPS in 2000.⁵ The specific sound-walks to be analyzed in the dissertation offer a highly diversified and multilayered narrative experience. This chapter follows the theoretical insights provided by locative media scholar Brian Greenspan in order to investigate the novel types of narrativity that emerge from the combination of conventional print-centric reading practices pertaining to the printed book, the e-book, and the audio book, with attention paid to “embodied interactivity” (Greenspan) and the experiential elements that are evident in locative narratives.

Chapter Three, being the final one in this dissertation, focuses on *Ingress* (2012-), one of the most popular locative games of the 2010s that has been played on a global level,⁶ produced by Niantic, Inc., a Google-owned corporation.⁷ In fact, this particular game has

⁴ As is also stated in volume E of *The Norton Anthology of American Literature*, “*The Silent History* demonstrates how formal innovations in contemporary literature arise as traditional story-telling genres, such as the novel, migrate into ever-changing electronic media.”

⁵ Teri Rueb is known for several site-specific works, such as *Trace* (1999), *Drift* (2004), *Itinerant* (2005), *Core Sample* (2007), and *Grimpant* (2013), not to be analyzed in the present dissertation.

⁶ Besides *Ingress*, other locative games of the late 2000s and 2010s are *Parallel Kingdom* (2008-), *Haunted Planet* (2012-), *Father.io* (2017), and *Maguss* (2018), which are not going to be analyzed in the present dissertation.

⁷ Other more recent games developed by Niantic, Inc. are *Pokémon Go!* (2016) and *Harry Potter: Wizards Unite* (2019), not to be analyzed in the present doctoral project.

popularized, through the incorporation of (hyper)texts, the integration of narrative elements in locative gaming. Drawing on Scott Rettberg's theories about the rebirth of hypertext, this chapter aims to discuss *Ingress* as a narrative platform for the creation of different types of locative and other types of digital, screen-based, and fictional hypernarratives. What is special about *Ingress* is that it functions as a fictional universe allowing for the concepts of hypertextuality and narrativity to be challenged and revisited, as well as for the tension between gaming and narrative elements to be reconciled. *Ingress* serves as an example of a post-hypertextual form, to borrow Rettberg's terminology, bringing together the fields of narrative, game studies, and locative media. In particular, this chapter will delve exclusively in the close textual analysis of locative/spatial hypertextual narratives that are included in *Ingress* in an attempt to explore the relationship between the hybrid urban space, narrativity, games, and location-based media technologies.

Ultimately, it needs to be stated that the works to be analyzed in the following chapters (except for *Times Beach* and *Fens*) display affinities with established genres, such as science fiction, although they are not purely science fictional. It seems that locative texts harbor science fiction, utilizing and resorting to it because it offers a stable ground from which they depart in order to build their own storyworlds. References to science fiction in the current dissertation are limited, since the theorization of locative media narratives in the context of science fiction writing rests beyond the scope of the current research project. Whenever references to science fiction are made, they only function as recognizable markers helping readers acknowledge where elements, such as spatiality and alternate world scenarios that are used in the locative media texts to be analyzed here, come from. In other words, such references serve as a point of departure helping readers understand or clarify the background from which the locative textual/media practices emerge.

All things considered, the present doctoral project tantalizes the readers with innovative conceptualizations of narrative textuality, in an attempt to open up to diverse approaches when it comes to the perception and understanding of the relationship between space and narrative, which has recently expanded to include an array of locative works that essentially enhance the literary experiments that have appeared since the middle of the twentieth century. This is a dissertation that through the study of works by distinct North American authors and practitioners attempts to comment on the narrative techniques each work employs. This study seeks to construct an interdisciplinary theoretical framework that lies at the intersection of locative media and narrative practice, while also building the vocabulary and shaping the discourse for an extensive theorization of locative media works from a narrative point of view. In the light of the above, the present dissertation aims at inviting readers to consider the narrative potential of this newly-emergent field as well as to witness the effects of locative media and narrative convergence on literary production by widening its scope as well as expanding the use of literary elements as we have known them.

CHAPTER ONE

Theorizing about Locative Media through Print Fiction

1. Introduction: From Cyberpunk to Locative and Mobile Media Technologies

This chapter will explore the ways in which the newly-emergent locative media technologies are portrayed and represented in William Gibson's (print) novels, *Spook Country* (2007) and *The Peripheral* (2014). Almost two decades after the publication of *Neuromancer* (1984), with which he introduced cyberspace in literary terms, Gibson attempts to articulate through *Spook Country* the technological shifts that took place in the 2000s in the field of locative media. Written only a few years after the advent of locative media, *Spook Country* constitutes an entry point to these technologies, while *The Peripheral* stresses the connection of locative media with ubiquitous computing, which is presented as the next evolutionary stage of locative media. That is to say, *The Peripheral* investigates the potential paths locative media has led and/or it may lead to, portraying the ways in which locative media may give rise to ubiquitous computing as well as envisioning a future where location-awareness may lead to the creation of drone-technologies of ultimate surveillance.

In this chapter, I intend to argue that Gibson's narrative allows readers to visualize through language the technological changes and practices that have been brought about by locative media technologies since the beginning of the twenty-first century, especially as regards the notion of space and how it can be perceived. In fact, these two novels present locative technologies leading to the creation of hybrid spaces that are both virtual and physical. The value of the present analysis lies in the exploration of the connection that exists between locative technologies, narrative, and language, which has not been thoroughly discussed in current scholarship so far. If viewed together, these two novels capture the evolution of locative

media technologies, forming a technological continuum between locative media and ubiquitous computing, as this is expressed through literary language and writing.

In both novels, Gibson seems to retain certain motifs and characteristics that were evident in his previous cyberpunk fictional works.⁸ Cyberpunk is a literary trend which appeared and developed in the 1980s and constitutes part of the mainframe of postmodern literary production. In her influential study on Gibson's cyberpunk works, entitled *Gothic Motifs in the Fiction of William Gibson* (2004), Tatiani G. Rapatzikou calls attention to the visuality of "Gibson's [cyberpunk] writings [which] invent a new language of rendering visible contemporary technologically-defined processes" (214). This also becomes evident in the novels to be examined in this chapter, which enable readers to visualize through language the new hybrid spatialities that emerge from the characters' interaction with both virtual and physical spaces through the use locative and mobile media technologies. This chapter investigates the relationship between these two spaces as well as how they can be experienced and perceived.

Rapatzikou has also observed that "Gibson [...] has been explicitly using technical vocabulary and images in an attempt to undermine our positions about technology by entering the system and describing it from within" (211). Although this kind of technical vocabulary often alienates his readers, as will become evident in the analysis to follow, at the same time "[w]hat makes [Gibson's] literary technique innovative is that it translates otherwise incomprehensible electronic technologies into a manipulable and habitable territory" (211). In fact, as Rapatzikou attests, Gibson's success and popularity as an author of cyberfiction can be attributed to his "articulat[ing] the fact that highly advanced computer technologies no longer belonged to the realm of the imaginary, but constituted part of daily reality" (4). While

⁸ For more information about cyberpunk and William Gibson's fiction, see Tatiani G. Rapatzikou's *Gothic Motifs in the Fiction of William Gibson* (2004) and Dani Cavallaro's *Cyberpunk and Cyberculture: Science Fiction and the Work of William Gibson* (2000).

Rapatzikou refers to Gibson's earlier works of the 1980s and 1990s, her observations are still valid in his more recent novels after the 2000s, especially *Spook Country* and *The Peripheral*: rather than commenting on computer technologies, Gibson now shifts his attention to locative media and mobile technologies, which have constituted a significant part of our technological reality in the last two decades. Both *Spook Country* and *The Peripheral* present the readers with newly-emergent locative media technologies that have been popularized through Gibson's narratives, as was the case with advanced computer technologies.

An additional cyberpunk element that is retained in these two novels and to which Rapatzikou calls attention is "technology's double function" (22). Indeed, in Gibson's cyberpunk works "technology [is] the embodiment of human inventiveness and an omnipotent herald of destruction" (22). In a similar manner, in *Spook Country* and *The Peripheral* Gibson confronts his readers with different aspects of locative and mobile technologies, always displaying an ambivalent attitude towards them, in an effort to avoid delivering a straightforward message with regard to whether these technologies ought to be considered liberating or repressive. In effect, Gibson in these two novels does not celebrate nor condemn newly-emergent technologies, aiming instead to urge his readers to think critically about the ways in which these technologies are used nowadays.

Considering *Spook Country*, which will be analyzed first, in tandem with Gibson's previous fictional works, one notices that, while his first two trilogies explore the near future, in his trilogy including *Spook Country*, the narrative takes place in the present.⁹ In *Spook Country* Gibson resorts to the utilization of multiple narrative threads. In particular, the plot of *Spook Country* consists of three separate stories. The first one is about Hollis Henry, a former

⁹ Gibson is also known for the writing of two early trilogies, the so-called Sprawl trilogy, which consists of *Neuromancer* (1984), *Count Zero* (1986), and *Mona Lisa Overdrive* (1988), and the Bridge trilogy, which includes *Virtual Light* (1993), *Idoru* (1996), and *All Tomorrow's Parties* (1999), whose action takes place in the near future. *Spook Country* belongs to the Blue Ant trilogy that features *Pattern Recognition* (2003), *Spook Country* (2007), and *Zero History* (2010).

rock musician and now a journalist, who has been hired by a business magnate, Hubertus Bigend, to write an article about computer locative art. The second story centers around Tito, a Cuban-Chinese young man, who delivers iPods to an old man who is a former CIA agent. Tito's activities are tracked down by Brown who is connected with the American government in an unspecified manner. The third story concentrates on Brown's attempts to capture Tito and his family with the aid of Milgrim, his hostage and drug addict. All three storylines converge, forming a larger narrative that focuses on the search for a shipping container that is connected with illegal activities concerning the US-Iraq war only known to Bobby Chombo, the "king" of locative artists. Finally, a large part of the novel's plot narrative takes place in the city of Los Angeles,¹⁰ where locative media artists, such as Alberto Corrales, have attached "virtual monument[s]" (*Spook Country* 175).

This being the case, the first section of the present chapter seeks to illustrate the ways in which *Spook Country* anticipates locative media technologies and how they emerged, considering that it is a text written in a period when experimentations with these technologies first started taking place. While the novel has been characterized "as a political thriller" (Didcock 38), portraying a post-9/11 world of terrorism and corruption, when *Spook Country* was published, it was frequently compared with *Neuromancer*: in a similar manner that with the latter Gibson "anticipated the internet revolution, [and] coined the term 'cyberspace' [...], [n]ow, in *Spook Country*" he introduces "locative art[,] [which] uses GPS positioning and digital imaging to create artworks which are invisible to the naked eye but come to life when viewers don special headsets" (Didcock 38). Scholars have referred to the constant interaction

¹⁰ Gibson's choice of Los Angeles as a territory for his narrative is not arbitrary, given its broader historical and cultural significance. Mark C. Marino offers a rather narcissistic image of Los Angeles, writing that it "is a city infatuated with its own image" as well as that "[t]he Hollywood movie industry loves to churn out films that depict the city, celebrating or sending up its vanities, shuttering its racial diversity or peeking at it through the slats of film noir" (291). Moreover, Los Angeles has been directly associated with the production of locative media projects, such as *34 North 118 West* and *The LA Flood Project* (2006), which were commented on in the introduction of the present dissertation.

that has emerged between cyberspace, that is virtual space, and physical space, due to the application of locative and mobile media technologies to which Gibson calls attention in *Spook Country*. More specifically, the novel has been approached in terms of the ways in which locative art permits “the virtualization of physical *space* through digital media” (Seegert 71, emphasis in the original). This refers to the “creat[ion] [of] a layer of (audio, visual, or textual) information on top of physical space,” that is “the ability to attach information to locations via GPS technology” (de Souza e Silva, “Mobile Narratives” 38). In this novel, locative art serves as a literary equivalent to what Adriana de Souza e Silva calls “location-based experiences” and “mobile annotation projects” (38) that have been produced in the USA, but also in other countries, with the use of locative media technologies since the early 2000s. Rita Raley, another locative media scholar, observes that “what Gibson’s [*Spook Country*] imagines” with the depiction of “the mixed reality produced by locative media” is actualized by locative media practitioners with the production of locative media projects in the early 2000s (“On Locative” 140, 123).

In this light, literary scholarship has concentrated mostly on how the novel promotes the merging of the virtual and the physical as well as on the creation of a hybrid space that is both virtual and physical. This kind of locative media space has not only been viewed as a means of artistic expression, but its “dark prospects” have also been commented on, with particular emphasis placed on locative media as surveillance technologies (Jones 272). The present chapter explores how *Spook Country* remediates in printed form the ways in which locative media technologies reconfigure the relationship between virtual and physical space. The novel also remediates locative media narrative and gaming practices, which serve as points of departure for the rest of the dissertation. Considering that according to Jay David Bolter and Richard Grusin, remediation is “the representation of one medium in another” (45), what is remediated in the printed pages of *Spook Country* and *The Peripheral* are the characters’

locative experiences, that is how they perceive this kind of locative media space and by extension, locative media technologies and artistic projects. At the same time, the chapter explores the ambivalent attitude, as mentioned earlier, that is expressed towards these technologies, and how they are portrayed. Interestingly, these topics have only been briefly touched upon: the way Gibson utilizes visual language in order to construct hybrid spaces has not been adequately explored nor has a close-text analysis of the novel been attempted before, one that highlights the effects of the use of locative media technologies on the characters of the novel, and by extension, on contemporary reality and life, which is exactly the aim of the current analysis.

Turning our attention to *The Peripheral*, which is going to be discussed in the second section of this chapter, one notices that the author situates for the first time his narrative in the distant future. Gibson himself, commenting on the difference between *The Peripheral* and the Blue Ant trilogy, of which *Spook Country* is part, writes that the latter is “an attempt to discover how weird the present might be [...] so the next logical step for [him] was to apply that bandwidth of weirdness to an imagined future and see what it produced” (Martin 30), which is where action is located in *The Peripheral*.¹¹ While in his previous novels Gibson was primarily interested in the latest advances in computer technologies, mobile computing (and locative) technologies constitute the next technological development the author aims to investigate in *The Peripheral*.¹²

The novel depicts two future narratives. In the first storyline, Flynne Fisher, who lives in the rural American South in the 2030s, is asked by her brother, Burton, to substitute him in order to beta-test a new online game by piloting a drone camera. While playing, she becomes

¹¹ Gibson seems to be about to complete another trilogy which will include his last two novels, *The Peripheral* (2014) and *Agency* (2020).

¹² Interestingly, when asked in an interview “[w]hat’s the biggest thing [he] didn’t predict,” Gibson’s answer is “[c]ellphones” (Willis). Gibson’s emphasis on mobile technologies is also evident in *Spook Country*, as will be shown in this chapter.

the witness to a murder, but gradually she realizes that what she has witnessed is not a simulated game event staged in future London, but something that has actually happened. The second timeline takes place in the 2100s in post-apocalyptic London, while the majority of the earth's population has been exterminated by a climate calamity known as "the Jackpot." The protagonist of this storyline is Wilf Netherton, an alcoholic PR man, who has problems with his client, Daedra, whose sister, Aelita, is murdered in her apartment. The two future realities intersect via a computer server located in China. As for Flynn's time-travels to dystopian London, they materialize via the use of telepresence technology enabling Flynn to inhabit an artificial android and drone-body avatar, referred to in the novel as the "peripheral." Flynn and Netherton help detective Lowbeer "to investigate, and possibly even in a way prevent, a murder that could have global significance" (H. Ritchie 45). The novel ends with the two forces uniting to change the course of history and avoid the "Jackpot" apocalypse.

As the above plot description reveals, *The Peripheral* is a hybrid of post-apocalyptic and cyberpunk science fiction elements. On the one hand, the novel signals the author's turn to science fiction, especially with the use of elements such as time travel and posthuman body/avatars, with the narrative taking place in the distant future. While the novel has not received much scholarly criticism so far, the majority of critical reviews refer to Gibson's return to the science fiction genre (Martin 30; Lovegrove 13; Ring A.3; Baron; McFarlane 122). In fact, the novel features some of the science fiction elements that comprise what Heather J. Hicks calls "the new post-apocalyptic canon" (23). The apocalyptic events of the "Jackpot," only indirectly communicated to the readers through one of the protagonists, are the gradual outcome of climate change, which is also a motif of the novels belonging to Hicks' canon (116). Emphasis is also placed on the issue of restructuring, reshaping, and rebuilding of the post-apocalyptic world in the narrative, but also on "the apocalyptic threat posed by extreme divisions between the wealthy and the poor," which Hicks observes being evident in

the post-apocalyptic novel of the twenty-first century (166);¹³ indeed, in *The Peripheral* the city of London is governed by rich oligarchic kleptocracies. Interestingly, in presenting a “post-environmental-collapse physical world,” the novel has also been characterized as an example of “climate fiction” or “cli-fi” (Taylor D.46).

Anna McFarlane, one of the few academic scholars that have commented on the novel, takes the above observations a step further, as she not only notices that *The Peripheral* signals Gibson’s “return to science fiction proper after the Blue Ant trilogy’s contemporary setting,” but, specifically, “to the roots of cyberpunk” (122). In fact, McFarlane considers the novel an instance of “haptic cyberpunk” in that “[t]echnology in *The Peripheral* has [...] been modified, becoming increasingly haptic and moving away from the purely visual experience of the matrix in *Neuromancer*” (122, 124), which is Gibson’s first novel. In particular, Gibson in *The Peripheral* uses “realism with a contemporary setting to express science-fictional impulses while at the same time elevating the haptic over the optic” (McFarlane 121). This kind of “science fiction realism” is used to comment on “the increasingly tangible relationship we have with our present day technology through the ubiquity of touch screens” (121, 124-25).

Another link between *The Peripheral* and Gibson’s cyberpunk origins is that, in a similar manner that in cyberpunk writings “science fiction and dystopian interpretations of both present and future worlds [...] gain fresh resonance” (Cavallaro 8), *The Peripheral* also features a dystopian, dark, empty, but highly-technologized and sentient cityscape.¹⁴ Importantly, the affinity of Gibson’s works with science fiction is “not entirely new,” since his “[c]yberpunk science fiction’s thematic concerns [...] place it at a crossroad between

¹³ For more information on the new post-apocalyptic genre of science fiction, see Heather J. Hicks’ *The Post-Apocalyptic Novel in the Twenty-First Century: Modernity beyond Salvage* (2015).

¹⁴ On discussing ubiquitous computing, Mark Shepard defines a “sentient city” as “one that is able to *hear* and *see* things happening within it” (“Toward” 31; emphasis in the original). He also writes that “[c]ities are ‘smart,’” because “[a]rtifacts, spaces and systems we interact with (and through) on a daily basis collect, store and process information about us, or are activated by our movements and transactions” (Introduction 9). Shepard’s observations about “smart” architecture are evident in *The Peripheral* where buildings and objects in future London are smart or sentient, as will be shown in the present chapter. This also corroborates Shepard’s view that “[n]on-human sentience” has also been evident in science fiction writing (“Toward” 33).

traditional science fiction and mainstream fiction” (Rapatzikou 45). Gibson’s cyberpunk fiction has always been characterized “[a]s a hybrid narrative form,” since it consists of elements from “[d]iverse literary forms” (Rapatzikou 51, 44).¹⁵ Using Brian McHale’s theories, Rapatzikou calls attention to “th[e] literary phenomenon of science fiction ‘postmodernization’ and postmodern ‘science-fictionalization’” that “[gave] way, in the 1980s, to a hybrid science fiction form labelled cyberpunk science fiction” (41). Gibson masterfully attempts to depart from the classical science fiction motifs and symbols, such as the rocket and the robot, initiating, through his cyberpunk fiction, the need for change of subject matter in science fiction (xvii). His cyberpunk novels thus articulate the transition from classical science fiction to the new era of cybernetics and information technology. In a similar vein, with the inclusion of science fictional elements in *The Peripheral*, in particular, Gibson offers an interesting twist in cyberpunk aesthetics and conventions, renovating at the same time science fiction by associating it with the technological innovations of his era: the novel shifts the readers’ attention from digital technologies of cyberspace to current location-aware, mobile, and ubiquitous computing technologies, while also placing them within a post-apocalyptic setting.

Moreover, Rapatzikou writes that “[c]yberfiction [...] explores the assumption [...] that technology should be viewed as a present day phenomenon and not as a far-fetched science-fictional fantasy, since it already has the ability to intervene and reshape all our cognitive and perceptive processes and ideologies” (16-17). In a similar manner, in the present chapter, locative and mobile media technologies that are portrayed in Gibson’s latest fiction will also be viewed as technologies that are currently formulating our socio-cultural tastes, consciousness, and ideology. The present analysis on *The Peripheral* will call attention to the visual language to which Gibson resorts in the novel in order to describe the effects of the

¹⁵ This is also evident in the preface to Bruce Sterling’s cyberpunk anthology *Mirrorshades* (1988), where he contends that “cyberpunks [are] hybrids themselves” (xiii), attempts to establish a literary bond between cyberpunk and precedent science-fiction writings: “[Cyberpunk’s] roots are deeply sunk in the sixty-year tradition of modern popular SF” (x).

characters' haptic use of mobile and locative technologies. Although McFarlane also refers to haptic technologies in relation to *The Peripheral*, what is different in the analysis in the present chapter is that smartphones are regarded in the novel as locative devices. While McFarlane refers to the effects of drone technologies on the human body, my analysis will place emphasis on the effects these technologies have on the notion of space, as they lead to its hybridization. In fact, a different drone theory, proposed by Mark Andrejevic, will be used in this section of the chapter, which views smartphones as locative media, and by extension as drones. Location-awareness in effect will be examined in conjunction with ubiquitous computing technologies. What Gibson actually manages to do is merge physical urban geographies not with the terminal space of the computer monitor, as he did in his cyberpunk works, but now with the digital space of the mobile phone, a merging that invites a reconsideration of the notions explored in Gibson's previous novels, such as space. *The Peripheral* actually projects a pre-apocalyptic and post-apocalyptic world, whose connection is actualized via technologies of telepresence. Nevertheless, although these shifts in Gibson's writing were welcomed by his readers, there were negative commentaries about the novel's narratological weaknesses.¹⁶ What is of interest though has to do with the literary metaphors Gibson constructs in *The Peripheral* in his effort to discuss the ways in which smartphone technology reconceptualizes communication between his characters as well as the way they perceive and understand their location in space.

Importantly, as mentioned in the introduction of this dissertation, the examination and analysis of science fiction elements in the novel is beyond the scope of this dissertation. The purpose of the analysis of *The Peripheral* in this chapter is not to examine the post-apocalyptic science fictional elements of this novel per se, despite the fact that they may occasionally be referred to because they offer an interesting aspect to the ways in which the characters

¹⁶ In a review on *The Peripheral*, Charles Finch notes that “[o]n the level of narrative, it’s perhaps his weakest book” (E.3). In a similar vein, James Lovegrove also writes that “[w]hile it’s good to see the author going back to the future, one wishes his crystal ball were that little bit more focused” (13).

experience the fictional world. Rather, the aim of the analysis in *The Peripheral* is to illustrate the ways in which haptic mobile technologies function as locative media technologies that pave the path towards ubiquitous computing technologies; at the same time, the shift in the relationship between physical and virtual space will be discussed as a consequence of the use of haptic technologies. Ultimately, these technologies will be viewed as the evolutionary stage of the locative technologies that are represented in *Spook Country*, which is exactly the connection between the two novels this dissertation proposes, something that has not been attempted before. In *The Peripheral*, as in *Spook Country*, these newly-emergent technologies are not celebrated, but the novel presents both its positive and negative aspects, inviting the readers to maintain a critical stance towards ubiquitous computing technologies of surveillance.

Viewing the two novels in conjunction with each other, the chapter intends to demonstrate the ways in which they make readers visualize through language how we perceive space through locative and mobile technologies in contemporary society. Locative and mobile media technologies function as a fictional embedment in both novels, which aim to acquaint the readers with technologically-generated spaces in an effort to imagine our condition through these technologies as well as delve into the effects of using them by examining how characters think and act. I will thus begin with the analysis of *Spook Country*.

1.1 Narrative Manifestations of Locative Media Technologies in William Gibson's *Spook Country*

In *Spook Country* Gibson seeks to introduce his readers to locative media, which constitutes a significant technological landmark in the development of new media.¹⁷ The author embeds locative media in the narrative in order to annotate, report, document, and record the effects

¹⁷ In an interview conducted in 2011, Gibson states that in his early fictional works he “took [his] neologism [of cyberspace] and that vague chain of associations to a piece of prose fiction just to see what they could do” (Wallace-Wells). In this chapter I will argue that with *Spook Country*, he seeks to do the same with locative media.

and the potential of this newly-emergent type of technology. This intensifies the realistic and contemporaneous effect of Gibson's writing. Therefore, the aim of this section is three-fold: firstly, it concentrates on the ways in which locative media in *Spook Country* permit the construction of a hybrid locative space as well as the ways in which Gibson's locative media art works that appear in *Spook Country* connect with the notions of materiality and virtuality; secondly, attention is paid to the ways in which locative media technologies themselves are represented in Gibson's narrative that brings forth both their liberating and binding potential in terms of the feelings that are generated to the characters due to their use; and thirdly, emphasis is placed on the examination of locative media as a narrative trope that allows readers to establish links between old and new technologies in their effort to view locative media in conjunction with older digital media technologies.

Exploring also the relationship between certain binary oppositions, such as virtual/real space, materiality/immateriality, and visibility/invisibility, this section intends to examine the ways in which *Spook Country* redefines and reconfigures the notions of spatiality and immersivity within digital locative media art, as this is remediated through the pages of *Spook Country*. More specifically, in the locative art works that are remediated in *Spook Country*, the digital/virtual world is superimposed on the urban space; this in turn leads to the emergence of a locative space, which appears to be both virtual and physical at the same time. I will thus proceed with a close reading of *Spook Country* in order to examine first the ways in which the locative art works created by one of the main characters, Alberto, are presented.

In *Spook Country*, Gibson provides information about the emergence of locative media technologies while establishing links among new media technologies, the military, and the arts. It is through the characters of Alberto and Bobby Chombo, who are both locative media art practitioners in the novel, that Gibson informs his audience about a significant technological development that has led to the emergence of locative media technologies and art. Both

characters refer to the transference of GPS technology from the military to the public.¹⁸ Alberto reports that a major change “started on the first of May, 2000,” when “[t]he government announced that Selective Availability would be turned off, on what had been, until then strictly a military system. Civilians could access the GPS geocoordinates for the first time” (*Spook Country* 21). Bobby Chombo seems to complement Alberto’s documentation later in the narrative, noting also that “[t]he most interesting ways of looking at the GPS grid, what it is, what we do with it, what we might be able to do with it, all seemed to be being put forward by artists. Artists or the military. That’s something that tends to happen with new technologies generally: the most interesting applications turn up on the battlefield, or in a gallery” (66). Gibson’s narrative explicitly confirms that locative technologies have entered not only “the battlefield” but the “gallery” as well.¹⁹ In fact, artists of the early period of locative media production, “were the very first ones to foresee the possibilities of using mobile technologies (including GPS devices and cell phones)” (de Souza e Silva and Sheller 3). The popularization of the Global Positioning System (GPS) has triggered a number of socio-cultural and technological changes, playing for example a significant role in the production of the locative media art projects that have followed which has led to new modes of understanding space, since the main principle lying behind locative art is that the physical space is digitally

¹⁸ This transference is not entirely new in the history of new media technologies. For example, before computers started playing an important role in society in the 1980s, they were also initially constructed for military purposes, as Asa Briggs and Peter Burke attest (280). For more information, see Asa Briggs and Peter Burke’s *A Social History of the Media: From Gutenberg to the Internet* (2002).

¹⁹ As Lev Manovich attests, “[i]n a high-tech society, cultural institutions usually follow the technology industry. A new technology is developed for military, business, or consumer use, and after a while cultural institutions notice that some artists are experimenting with that technology and so they start to incorporate it in their programming” (“Poetics” 236). Jeremy Hight also confirms, capturing the period immediately after the army allowed access to GPS technologies in 2000, that the “GPS was something for backpackers, fishermen, and geocachers primarily and not in the larger cultural radar by any means” (“Locative Narrative” 324). Interestingly, Drew Hemment refers to the period “between 2003 and 2004,” when “locative media was in an embryonic state” (“Locative Arts” 349). He argues that “[a] focus on this period enables us to study the stem cells of locative media and locative arts and thus refuse a narrow understanding of locative media that has since emerged” (349). Gibson’s meditation on GPS technology can be viewed alongside Hight’s observations while creating the locative project *34 North 118 West*. Hight refers to the emergence of GPS technology and its role in the creation of locative media projects, stating that the authors of *34 North 118 West* “first began the project in 2000 with a notion that GPS and its way of placing packets of information in spaces and how it grids along the landscape was like the early railroads” (324).

augmented through the use of GPS technology. Taking the above into account, the characters themselves in *Spook Country* provide facts about locative media. It seems then that the actual world intrudes in Gibson's fictional world because of the information that leaks into the narrative. This very fact creates an encyclopedic effect, while also adding a realistic tone to the novel.

This effect is even more pronounced by Hollis's character who, in having been assigned "to write seven thousand words on locative computing and the arts" (*Spook Country* 141), becomes the authorial figure through which all the locative media-related theory is communicated to the readers.²⁰ In order to experience Alberto's locative art projects, Hollis uses "a padded headband, with a sort of visor," "a cell phone," and "a GPS unit" (7, 22). Alberto positions his locative monuments across the urban space of Los Angeles, "annotating every centimeter of a place, of every physical thing" (23). Another artist in *Spook Country*, Beth Barker, has also created an "annotated environment," albeit in her own apartment (133): "Each object is hyperspatially tagged with Beth Barker's description, with Beth Barker's narrative of this object. One simple water glass has twenty tags" (134). The information provided about each object exists digitally on the Internet, as the objects are "hyperspatially tagged," and is placed in specific locations in the physical environment. Barker's example illustrates that the physical environment can be augmented to incorporate digital personal narratives about material objects.²¹ This being the case, geo-annotation enables artists to create locative spaces in which digital objects are placed in specific (physical) locations.

²⁰ Gibson does not intend to portray locative media art as an avant-garde movement, as he also implies in his interview to Harvey Blume: "[t]here is a locative-art movement, and if you Google it you'll see a lot that's mostly very conceptual, and has to do with mapping. I wanted something more lowbrow. It wouldn't work for me otherwise. I wanted locative art that was almost like graffiti."

²¹ Jason Farman refers to Stickybits, a barcode application that "serves to emphasize this point: the hidden histories of objects, which give significance to the information that accompanies the objects (dates, prices, location, and the like), posit us in a sensory-inscribed relationship to the objects around us" (*Mobile Interface Theory* 128-29). The idea of concealed object narratives that are revealed through locative means is evident in *Spook Country* as well.

In this respect, Gibson juxtaposes in his narrative visible and invisible spaces that generate a liminal effect for the readers, as they are trying to familiarize themselves with the locative experiences that are remediated through the print medium. This is evident in the novel in the locative media art remediation of Claude Monet's painting *Poppy Field*. In this locative art project, Hollis's hotel room is annotated with virtual poppies. Hollis experiences this space as follows:

And there they were [the poppies], quivering slightly, reddish orange, arrayed as a field that filled her room, level with height of the bed. [...] She moved her head from side to side, scanning the effect. [...] Still crouching on the bed, she sat down and ran her left hand through the poppies she knew weren't there. She almost thought she could feel them. She swung her legs over the side and found the floor, poppies around her knees. Wading through them, toward the layered drapes, she felt momentarily as though they floated atop captive, unmoving water. (*Spook Country* 122-23)

The virtual and the real are not presented as parallel worlds here, but as interweaving realities. The augmented space appears to be built upon opposing features. The antithetical phrases “there they were” and “she knew weren't there” create a sensation of spatial indefiniteness that is characteristic of the hybridity of the augmented space, which is thus both visible and invisible. Although virtual, the poppies are actually presented as real, “quivering slightly, reddish orange,” while also being part of the physical world as they appear to be “arrayed as a field that filled her room.” This virtually constructed realistic effect is further reinforced by the fact that Hollis tries to touch the poppies, “[running] her left hand through [them]” or “wading through them.” Hollis seems to be experiencing an in-between reality and virtuality condition: her relationship with physical space — “her room,” “the bed,” “the layered drapes” — is kept intact, while at the same time she struggles to perceive the virtual poppies around her, as the use of the verbs “knew,” “thought,” “feel,” and “felt” indicates. The physical and kinetic feel

of the locative experience is further enhanced by the use of spatial language, as with “wading through,” “sat down,” “ran her left hand through,” “toward,” “swung her legs over the side,” and “poppies around her knees.” However, this movement is juxtaposed with the sense of immobility and imprisonment connoted by the phrase “captive, unmoving water.” Thus, the hybrid realm Hollis finds herself confronted with is a liminal space that is paradoxically constructed by blurring together seemingly antithetical concepts, such as freedom/imprisonment, movement/immobility, virtuality/reality, and visibility/invisibility.

With regard to the relationship between virtual and physical space, it also needs to be stated that the immersive potential with which locative technologies are endowed allows us to revisit certain theories of immersion in virtual space that appeared in the late 1990s and early 2000s. Firstly, in *Hamlet on the Holodeck: The Future of Narrative in Cyberspace* (1997), Janet H. Murray defines immersion as “the sensation of being surrounded by a completely other reality, as different as water is from air, that takes over all of our attention, our whole perceptual apparatus” (98). In a similar vein, in *Narrative as Virtual Reality 2: Immersion and Interactivity in Literature and Electronic Media* (2015), first published in 2001, Marie-Laure Ryan views immersion in relation to the concept of “recentering,” which means that “consciousness relocates itself to another world and, taking advantage of the indexical definition of actuality, reorganizes the entire universe of being around this virtual reality” (73). It can be claimed that such theories of immersion in virtual worlds prove to be inadequate when it comes to Gibson’s *Spook Country*, where immersion requires physical/material qualities. In fact, Hollis in the novel is not presented as “being surrounded by a completely other reality,” nor does virtual reality “[take] over all of [her] attention,” as Murray would argue (98). Or, to put it Ryan’s terms, Hollis does not transfer herself “to another world” (73). This is because she remains in the real world — in her hotel room — which is simply augmented, or annotated, that is to say, filled with digital objects to be experienced virtually. Nevertheless, despite the sensation of

familiarity that the physical location emanates, there *is* a certain degree of immersion in this hybrid locative space. Hollis seems to be resistant to the virtual space, constantly being aware — “she knew weren’t there” (*Spook Country* 122) — that the virtual experience is technologically generated via locative media, in other words, that the poppies are a mere optical but technologically-generated illusion. As for the phrase “[s]he *almost* thought she could feel them” (123, emphasis added), it further highlights the physicality of the experience that prevents Hollis from fully immersing herself into a purely digital and virtual realm. As a result, the immanent presence of the real world as a constant reminder of the materiality of the locative space permits only partial immersion in virtual reality. Actually, it is Hollis’ simultaneous movement in both the physical and virtual space that intensifies the hybrid locative feel she experiences.

This being the case, more contemporary theories should be considered in order to describe immersion in a locative realm. Importantly, in the recent study *Narrating Space/Spatializing Narrative: Where Narrative Theory and Geography Meet* (2016), Ryan et al. view virtual reality in tandem with locative media practice, observing that “[a]lthough the dream of a complete, immersive virtual reality system that provides users with a sense of the presence of an environment has not materialized, despite the hype of the 1990s, many lesser degrees of simulation can lead to compelling and realistic engagement with virtual worlds” (222). In this sense, the lack of complete immersion in a virtual environment should not be seen as a drawback, since, as Hollis’s locative experience indicates, locative media redefine the relationship between augmented space and the individual, allowing one to explore the virtual and the real in relation to one another, in other words, to examine the virtual in a more realistic manner, an idea to be further explained in the discussion of *The Peripheral*.

Alex Monroe Ingersoll also points out in his Ph.D. dissertation that “Gibson positions locative devices as offering the possibility for [complete] immersion” (288). However, he

seems to overlook the reason why Gibson's characters fail to move "[i]nto the locative" (*Spook Country* 21), despite their interest in doing so (Ingersoll 288). I would argue that Gibson provides an interesting subversion of how locative works can be visualized. The physicality/materiality of locative space needs to be emphasized here because it does not only relate to the physicality of the real world, that is the actual locations in the urban space to which Alberto's virtual monuments, for example, are attached, but it can be viewed in relation to the materials it helps enhance, which takes various forms in the novel. Firstly, despite their virtuality, locative media works are presented as essentially material to the extent that this kind of materiality is balanced against virtuality,²² as is shown in the following excerpt, where Alberto describes in detail how he constructs his locative works:

I start with a sense of place [...]. With event, place. Then I research. I compile photographs. [...] I build virtual models, then cover them with skins, textures I've sampled, or created myself, usually for that specific piece. Each model has a virtual skeleton, so I can pose and position the figure in its environment. I use digital lights to add shadows and reflections. [...] The modeling is like pushing and pulling clay. I do that over an inner structure of joints – the skeleton, with a spine, shoulders, elbows, fingers. It's not that different from designing figures for a game. Then I model multiple heads, with slightly different expressions, and combine them. [...] The expressions don't look made up, if you do that. I color them, then each surface in the model is wrapped with a texture. I collect textures. Some of my textures are real skin, scanned in. The River piece, I couldn't get the skin right. Finally, I sampled a very young Vietnamese girl. It worked. People who knew him, they said so. [...] I have to position

²² As I will illustrate in the next section on *The Peripheral*, in his article "The Materiality of Locative Media: On the Invisible Infrastructure of Mobile Networks," Farman emphasizes the material aspect of locative media technologies by calling attention to the ways networks and connections are formed among hardware devices/machines (54). In a similar manner, Gibson, through Alberto in *Spook Country*, also stresses the material element of locative technologies and locative space in particular. This is the case due to the fact that Gibson resorts to a book bound medium in order to relate the locative experience to the readers.

virtual lights, so shadows will be cast correctly. Then there's a certain amount of 'fill,' atmosphere, for the environment. [...] The original only exists on the server, when I'm done, in virtual dimensions of depth, width, height. (*Spook Country* 43-44)

The term "sense of place" used by Alberto refers to the "the distinctive character of a place that grows out of human use and experience" (Ryan et al. 7), and is going to be explored in detail in Chapters Two and Three of this dissertation. What is of interest here is that Alberto attempts to create "a sense of place" by connecting certain death events with specific places in the city. Considering Jeremy Hight's distinction between "place" and "space," one could argue that while "place" "is semantically read more as a point," in *Spook Country* it transforms into "space [...] a place of storage, an area to be filled" with virtual content ("Locative Narrative" 322). Moreover, despite the repetition of the word "virtual" in the above excerpt — "virtual models," "virtual skeleton," "virtual dimensions," "digital lights" (*Spook Country* 43) — Gibson utilizes language in such a way in order to describe the impression that the making of these constructs creates. Although Alberto uses software technology to create his virtual works, their actual construction is described in material terms, since this is compared to the processes of "pushing and pulling clay," while the constituent material elements of its underlying structure are also revealed: "inner structure of joints," "the skeleton, with a spine, shoulders, elbows, fingers," "multiple heads," "color," "a certain amount of 'fill,' atmosphere, for the environment." Their material quality is further underlined by the fact that the virtual objects are modelled on "real skin samples" and "textures." This is reminiscent of Steve E. Jones' comment when he argues that in *Spook Country* "[i]nstead of a sublime cyberspace apart from the world, this everted network has the constructed, plastic feel of the material world as artists experience it" (271). Although I fully agree with Jones' observation, it seems that he does not take into account the ways in which this materiality is emphasized in Gibson's narrative through language nor how locative media works are constructed. Instead of a generalized view about locative space in

Spook Country, attention needs to be paid to how the virtual space is materialized, as this is evidenced through each character's locative media works.

Interestingly, Alberto's locative memorials in Gibson's novel can be regarded as locative narratives of death, "depicting the deaths of celebrities at their place of demise" (Lichty 331). Commenting specifically on Alberto's depiction of River Phoenix, Raley contends that "this fictional locative artwork is narratological" ("On Locative" 124); to prove her argument, Raley relies on David Herman's definition of narrative where he talks about a "temporally structured communicative [act] but also [...] [a] syste[m] of verbal or visual prompts anchored in mental models having a particular spatial structure" (qtd. in Raley 124). Raley's attempt to refer to such locative works as "narratological" may be vague and misleading, but certainly it does not ascribe any narrative qualities to them. In fact, applying Ryan's "distinction between 'being a narrative' and 'possessing narrativity'" (Introduction, *Narrative across Media* 9) to *Spook Country*, one realizes that these monuments "lack the built-in sequential structure necessary to tell definite stories," as is the case with all "works of 'spatial art'" (Ryan et al. 139).²³ One could then argue that Alberto's art pieces are not narratives "in a literal sense," as Ryan would claim (Introduction, *Narrative across Media* 9), but they merely depict certain historical figures, as is the case of the musicians River Phoenix, Jim Morrison and Ray Manzarek, the photographer Helmut Newton, and the author F. Scott Fitzgerald. However, although Alberto does not integrate actual stories in his locative monuments, they seem to "hav[e] narrativity," since, in Ryan's words, they are "produced with the intent of evoking a narrative script in the mind of the audience" (Introduction, *Narrative across Media* 9). In fact, this view is very close to the idea of narrativity Raley adopts from Herman. The narrativity of the locative monuments in *Spook Country* is manifested in the fact that they allude to the

²³ Marie-Laure Ryan extends her ideas about this distinction mentioned in her *Narrative across Media: The Languages of Storytelling* (2004), in *Narrating Space / Spatializing Narrative: Where Narrative Theory and Geography Meet* (2016), which she coauthors with two other scholars, Kenneth Foote and Maoz Azaryahu.

figures' actual death narratives, which are invoked in the minds of the readers of Gibson's novel. Following Ryan's views, one can argue that the monuments can be said to be accompanied by an *implicit* and *underlying* narrative of how and when these celebrities died. I use the words "implicit" and "underlying" to emphasize that there are no fictional stories attached to these locations, as is the case with some of the locative narratives to be explored in Chapter Two of this dissertation, but these stories can be *inferred* by the way these figures are presented in *Spook Country*. For instance, seen from Hollis's perspective, River Phoenix "seemed birdlike, the arch of his cheekbone, as she bent forward, casting its own small shadow. His hair was very dark" because, as Alberto informs her, although he was blond, "he'd [...] dyed it for a role" (*Spook Country* 8). In addition, "[h]e wore dark, pin-striped trousers and a dark shirt" and his white neck was fragile (8). Therefore, it could be claimed that Alberto's locative monuments are further instilled with narrativity, as evidenced in *Spook Country's* actual prose; in being remediated through print, these monumental images eventually turn into what I would call fictional *pseudo*-narratives, in other words, narratives of a low "degree of narrativity," to use Ryan's terms (Ryan, "Towards" 30). What I mean is that the actual description of Phoenix, coupled with the image of his being "dead on a sidewalk" (*Spook Country* 67), render it not only a representation of a real event, but also a pseudo-narrative event that is visually created by Hollis, a fictional character, who is the viewer of the death scene. As Ryan explains, echoing Herman, narrative cannot only be "a textual act," but also "a mental image [...] built by the interpreter as a response to the text" (Introduction, *Narrative across Media* 9), with the text here being the actual words on the printed page in Gibson's novel. I thus extend Raley's argument by claiming that the mental images created in the narrative indicate the power fictional language has in representing Phoenix's death in such a way that eventually turns it into a pseudo-narrative. The relationship between art and language can thus be observed in *Spook Country*, where Alberto creates locative art through locative

media technologies, and this art is animated/remediated through Gibson's narration, that is through language.²⁴

Further considering the relationship between space and narrative in Alberto's locative works, one should take into account that physical places in *Spook Country* acquire historical value and significance as they relate to specific historical narratives that are attached to them. For example, Alberto's locative simulation of Phoenix can be viewed as (a remediation of) a historical (pseudo-)narrative, since it alludes to a factual death narrative of a famous musician that happened at a specific location, reanimated in *Spook Country* not only in locative but also in *textual* means. Indeed, Phoenix's locative narrative took place in the past, that is on "[Ha]lloween night 1993," as Odile, another character, states in *Spook Country* (7), and is attached with the aid of locative media technologies as a "skin" or layer to that particular location in Los Angeles. While Alberto uses the word "skin" to describe the components of his works, as shown earlier, Hight relates "skin" to historical and (urban) architectural layering, by viewing locative narrative as a "skin across place, [which is] a possible new way to [...] see history move into where it was written of" ("Locative Narrative" 327). To be more specific, Hight's statement about locative narrative fits here. He writes that: "[t]here is the narrative of the past and the narrative of those buildings and streets and layers and what resonates so deeply beyond their simply base function and measure" ("City" 74), which seems to correspond to the actual death event the narrative in the novel describes. In other words, the locative narrative that is provided by the locative artist resurrects the event that happened in the specific location, and is then remediated in the *Spook Country* text. Consequently, Gibson's narrative becomes a meta-narrative, that is to say a printed narrative about Alberto's locative historical narrative. In

²⁴ An etymological analysis of the word "technology" itself provides an adequate justification of its relationship with language and art. Indeed, the first one of its constituent parts, "techne," which means "art" in Greek, relates to technical skills and the use of technology in the construction of things as well as to the way we understand the world through the things we see and make. The second component of "technology" is the word "logos," and it relates to speech and language.

line with the above observation, the city becomes an “archiv[e],” an “accumulatio[n], aggregat[e]” of past and present narratives, to use Hight’s terminology (“City” 74). It becomes evident that, as Kim Sawchuk and Samuel Thulin clarify, “locative media experiences are not only pinpoints on the map” (172). They continue their argumentation by saying that “the persistence of multiple temporalities at a particular location haunts many of these projects which seed contents of the past into the present through the use of location-based media” (168). The urban space then turns into a multilayered spatial entity consisting of “layers in time, lost places or people in time” (Hight, “Locative Narrative” 328) revealed through locative media technologies.

Locative media art in *Spook Country* is then presented as a means through which the past is reanimated via its connection with the present. Locative media permit the reanimation of past experiences in the present time within the urban space, “hav[ing] at its core a drive toward memorialization, not a strict recovery but a remembering of the past,” as Raley asserts (“On Locative” 139-40, 128).²⁵ Indeed, with the incorporation of locative narratives in the novel, Gibson aims to locate “the presence of the past in the here and now,” to utilize Vivian Sobchack’s terminology (324). To be more specific, in *Spook Country* Bigend explains to Hollis that “[t]he celebrity self has a life of its own. It can, under the right circumstances, indefinitely survive the death of its subject” (105). Even when Hollis asks him “[w]hat happens [...] if the celebrity self dies first,” he replies that “images of this caliber serve as a hedge against that[,] [a]nd music is the most purely atemporal of media” (105). Bigend’s views on the celebrity self gain value if viewed within the context of locative media technologies. Bigend seems to insinuate that in re-instantiating the death of celebrities through locative media art,

²⁵ It is interesting to note that Rita Raley argues that, in reanimating the past “in the present[,] [...] Hight’s project[,] [34 North 118,] actualizes what Gibson’s novel imagines, which [...] is River Phoenix’s virtual presence on Sunset Boulevard” (“On Locative” 139-40). However, in the present chapter I argue the opposite, that is to say, Gibson “actualizes,” to use Raley’s words, locative media practices of the early twentieth century through language in *Spook Country*.

that is by placing their images within the city with the aid of locative media technology, Alberto renders these celebrities immortal. Through the use of locative media technology, Alberto seems to guarantee the ever-presence of these figures in the music industry and the public mindset worldwide. What Alberto's locative narratives demonstrate is that "the past [...] can be re-presented" (Sobchack 323), meaning revived or reactivated in the present with the use of locative technologies. This being the case, locative media becomes an atemporal medium, blending the past, the present, and the future in one single location of the urban space.

This becomes clear in another instance in the novel where Bobby Chombo, referring to the locative art works he creates, states: "Each one shows you a different world. Alberto's shows me River Phoenix dead on a sidewalk. Somebody else's shows me, I don't know, only good things. [...] The world we walk around in would be channels" (*Spook Country* 67). This statement can be approached from multiple perspectives. Firstly, if one considers Ryan's concept of the storyworld, locative narratives can be viewed as storyworlds. Ryan writes that a storyworld "covers both factual and fictional stories, meaning stories told as true of the real world and stories that create their own imaginary world, respectively" ("Story/Worlds/Media" 33). This is evident in Alberto's locative work, where attention is paid to the underlying factual story of Phoenix's death that is evoked in the actual location where he died, but also to the narratives evoked by the viewers of the locative monumental constructs that appear in *Spook Country*. This is because the physical (urban) space in Gibson's novel is augmented through the use of locative media and it eventually mingles with the digital world of Bobby's and Alberto's locative monumental narratives. In the novel, these lead to various "channels" that are realized with the act of walking through urban space, as Bobby remarks in the novel: "[t]he world we walk around in would be 'channels'" (*Spook Country* 67). In fact, walking can be used as a metaphor in order to talk about the ability to "read" and "write" the urban space in new ways with the use of locative media technologies, an idea that echoes Michel de Certeau,

as I am about to show further down. In relation to this, Hight, whose views are going to be discussed in more detail in the discussion of the locative projects of the following chapter, argues that “Locative Narratives are authored but not in the closed sense, they instead are experientially driven literally and figuratively as a person moves through a space on Earth” (“Locative Narrative” 322). Hight clearly parallels physical space to a text that can be “authored,” in other words written as well as read through movement within this space. If this is applied to *Spook Country*, it can be argued that in creating their locative works, Alberto and Bobby metaphorically “write” the urban text by attaching narratives to specific locations in the city, an idea to be explored in further detail in Chapter Two, although *Spook Country* appears to remediate locative narrative practices.

The verb “walk” that Bobby utilizes in the previous excerpt to describe the entrance to another world through locative media echoes de Certeau’s views in *The Practice of Everyday Life* (1984) where he claims:

The ordinary practitioners of the city live “down below,” below the thresholds at which visibility begins. They walk—an elementary form of this experience of the city; they are walkers, [...] whose bodies follow the thicks and thins of an urban “text” they write without being able to read it. These practitioners make use of spaces that cannot be seen; their knowledge of them is as blind as that of lovers in each other’s arms. The paths that correspond in this intertwining, unrecognized poems in which each body is an element signed by many others, elude legibility. It is as though the practices organizing a bustling city were characterized by their blindness. (93)

Although de Certeau in this excerpt does not actually refer to locative media technologies, he places emphasis on the act of walking in the city as a means of reading and writing in it.²⁶ As

²⁶ As will also be shown in Chapter Two, Michel de Certeau’s ideas could be considered in tandem with locative media and narratives due to the emphasis that he places on the act of walking as “writing” and “reading” the urban space.

is revealed in the above excerpt by the use of words and phrases such as “visibility,” “blindness,” “‘text’ they write without being able to read it,” and “spaces that cannot be seen,” de Certeau draws upon the binary opposition between visibility and invisibility enacted in physical reality which adds to its multi-layeredness. However, the main difference between de Certeau’s views and the locative pictorial narratives in *Spook Country* is that the latter can only be experienced through the use of the necessary hardware equipment, which is inevitably the case with locative narratives, as the following chapters will illustrate. For instance, Hollis in *Spook Country*, in her first locative experience with Phoenix, comes to the paradoxical realization that his “body [...] wasn’t there[,] [b]ut was” (*Spook Country* 7). This phrase generates an effect of liminality, since Phoenix’s body, similarly to the poppy effect analyzed earlier, is invisible due to its virtual quality. Raley successfully captures this liminal locative experience that Phoenix’s body creates, also noticing that “neither purely virtual nor purely real, the actor’s body is not present and yet is” (“On Locative” 124). Hence, *Spook Country* captures a hybrid space which is both immaterial and material, but at the same time fictionally remediates the effect that a digital but locative tool creates on physical space. In other words, it is Gibson’s narrative that enables readers to experience the presence and layering of a digitally-constructed but locative-generated reality.

The interrelationship between virtual and physical space very much depends on the material connections that develop between them, as evidenced in the locative artistic practice that features in *Spook Country*. For example, Archie the squid, Bobby’s locative work/creature, is also described as both virtual and material:

The squid’s every surface flooded with light, subcutaneous pixels sliding past in distorted video imagery, stylized kanji, wide eyes of anime characters. (*Spook Country* 58)

Beyond where it had been, as if its tail had been a directional arrow, hung a translucent rectangular solid of silvery wireframe, crisp yet insubstantial. It was large, long enough to park a car or two in, and easily tall enough to walk into, and something about these dimensions seemed familiar and banal. Within it, too, there seemed to be another form, or forms, but because everything was wireframed it all ran together visually, becoming difficult to read. (62)

Apparently, in these two excerpts Archie turns into a number of unidentifiable technological formations whose materials are stripped of any semantic/artistic signification. From a two-dimensional digital façade, Archie transforms into an indescribable amorphous bulk of wireframes. The words “rectangular,” “solid,” and “crisp” highlight the materiality and tangibility of physical space, while the adjectives “large,” “long,” and “tall” allude to its virtual three-dimensionality. Importantly, when examined in relation to the virtual world, the material space appears to be “translucent” and “insubstantial,” which points both to its transparency and the lightness of its form.

Taking all the above locative art works into account, one could argue that in *Spook Country* locative media permit the creation of a hybrid model of spatiality, an augmented, or rather locative space because GPS technology is involved in its creation, which is both real/material and virtual/immaterial, and as such it appears to be less immersive than virtual space. However, I would underline that although materiality is emphasized at the expense of complete spatial immersion in the locative world, Gibson seems to keep a balance in how he represents the virtual and physical space in *Spook Country*. The narrative descriptions of the three examples of locative works presented in the novel — the poppies, Alberto’s death narratives, and Archie — do not merely disclose that the material and the virtual co-exist in order to form a hybrid realm. The novel obliquely suggests a profound cross-fertilization between the two spaces. That is to say, within locative space the physical and the virtual are in

a constant exchange of features to the extent that there is materiality in the virtual as there is virtuality in the material, which is also manifested in the next section on *The Peripheral* with the depiction of the notion of the “virtually physical.” As Raley observes about this kind of “mixed reality” that is evident in *Spook Country*, the real and the virtual cannot “be stabilized as ontologically discrete” (“On Locative” 124). Ultimately, through locative media art the physical space can be examined and viewed through the virtual space and vice versa.

Spatial hybridity in the novel is informed by the practices of locative gameplay as well, which is going to be explored in more detail in the chapter on *Ingress*. In fact, *Spook Country* appears to remediate one of the first locative games, known as *Geocaching*. This is a treasure hunt game in which players, after having been “provided with the GPS coordinates of a hidden container (a ‘cache’) via a website or other means,” are required to locate this container using a GPS receiver “or other GPS-enabled mobile device” (Bunting 162). This seems to be reflected in *Spook Country* where half of Bobby’s team with the use of GPS devices try to reach the location where the shipping container lies. Gibson creates a fictionalized version of *Geocaching* that is somewhat different from the original game, especially in the way the latter constructs locative space. As Jason Farman notices, geocaching “utilizes the correlation between the material landscape and digital space,” since players need to “prove their presence at the cache” physically by signing the logbook made available at its geographical site and virtually by signing in at the Geocaching.com website (*Mobile Interface Theory* 84). Nonetheless, even though the container as an art piece in the novel remains invisible without the use of locative media technologies, its material aspect is emphasized, since Bobby uses yellow rectangular Lego bricks to construct the model that represents the container which is projected into the locative space. Indeed, when visiting Bobby’s place, Hollis realizes “that was what the [yellow] rectangular volume of wireframe had represented, full scale. A shipping container” (*Spook Country* 68, 69). Once again here, the material is emphasized at the expense

of the virtual. It can thus be argued that Gibson re-appropriates locative media game forms in his narrative in an attempt to elaborate in writing on the relationship between the material and the virtual, commenting at the same time on the creative potential of locative media.

This is evident in another locative media project that *Spook Country* remediates, that is Paula Levine's *San Francisco ↔ Baghdad*, which was launched in 2004, only three years before the publication of *Spook Country*. As Farman reports, in this project a map of the city of Baghdad is superimposed "onto a map of San Francisco and, at each place where a bombing occurred in Baghdad, [...] corresponding points" are mapped "onto coordinates in San Francisco" (*Mobile Interface Theory* 49). In *Spook Country*, Alberto creates a similar locative media project to which Raley refers as another "narrativ[e] of loss" ("On Locative" 128), meaning that it refers to events in which human lives have been lost. In this locative work, a map of the "American fatalities in Iraq" (*Spook Country* 23) is projected onto a particular site in the physical landscape of Hollywood, L.A., where crosses have been added in order to signal the deaths in Baghdad. When Hollis wears the headset equipment, she encounters "a crisply defined, perfectly level plane of white cruciforms, spaced as on an invisible grid, receding across the boulevard into virtual distance" (23). The virtual space feel created here is once again mapped onto the physical space, while the invisibility of the GPS grid is juxtaposed with the materiality of the "boulevard" onto which the grid is superimposed. This juxtaposition becomes evident when "a black Range Rover drove through the field of crosses" (23) within Hollis's view. This kind of intrusion again highlights the penetrability and flexibility of locative space when it coalesces with other spatial manifestations, while at the same time it brings forth the significance of historical events of human fatalities in order to promote anti-war feelings.

Another kind of juxtaposition becomes evident in the novel, since two antithetical attitudes towards locative media are depicted. On the one hand, locative media features as a means of artistic practice through the remediation of locative projects, as shown in my analysis

so far, while, on the other hand, locative media creates simultaneous feelings of frustration and confusion due to the unfamiliar sensation produced by one's encounter with the locative space and its effects. To begin with, when Hollis is asked whether she has experienced the poppies and she says "Yes. Beautiful" (*Spook Country* 133), she also finds the idea of annotating objects via locative media "fascinating" (134). Despite her initial fascination with the poppies, Hollis actually feels that "[t]he world is already weirder and stupider than you could ever have guessed" (124). Worse, this feeling is further intensified by the phrases "God help me" and "Dear God" (223, 251) when she realizes that Alberto's locative art works are part of the real world, a fact that is also "creeping her out" (44). Moreover, Hollis starts feeling rather concerned about the effects of such works once she views another locative art piece, "[a] cartoonishly smooth Statue of Liberty hand, holding a torch a good three stories high" (142). Not only does the Statue of Liberty hand seem to her "to be more melancholy than ridiculous" (142), despite its cartoonish appearance, but her uneasiness at the sight of this artwork is disclosed in the form of an interior monologue in the narrative: "Would it all be like this, in Alberto's new world of the locative? Would it mean that the untagged, unscripted world would gradually fill with virtual things, as beautiful or ugly or banal as anything one encountered in the web already? Was there any reason to expect it to be any better than that, any worse?" (142). Hollis is acquainting the readers with the changes taking place due to the locative media technologies used forcing them to accustom themselves to the emergence of a locative reality that combines the virtual world with "the untagged, unscripted world" (142).

The bizarre yet interesting aspect of locative media art is soon succeeded by the darker version of a world of technological espionage and uncertainty that gradually unfolds in the pages of *Spook Country*. In this sense, the Statue of Liberty even ironically foreshadows the loss of freedom and privacy that results from the use of locative media as a means of surveillance in the novel. Hollis discovers that locative media art is a mere obfuscation, since

she is soon confronted with another contrasting reality lurking behind it, as is the case with “[t]he Bigend version” (*Spook Country* 141) of reality also known in the novel as a “spook country” (159), which echoes the title of the novel, of “[p]irates, their boats, CIA maritime units, tramp freighters, the traffic in and hunt for weapons of mass destruction, a shipping container that spoke to Bobby Chombo” (141). This description reveals another facet of locative media technologies, while at the same time exposes their surveillance capabilities. The concept of location is not only examined in relation to locative media art in *Spook Country*, but also in relation to technological surveillance and the loss of privacy communicated to us via the various character actions. In *Net Locality: Why Location Matters in a Networked World* (2011), Eric Gordon and Adriana de Souza e Silva observe that location-aware technologies have triggered “a shift in the traditional model of surveillance toward a model of decentralized and all-encompassing surveillance in which all individuals in the network know the position of all others” (143). This notion of pervasive surveillance has also been referred to by other critics as “uberveillance,” that is “the deliberate integration of an individual’s personal data for the continuous tracking and monitoring of identity and location in real time” (Michael and Michael).²⁷ This being the case, in *Spook Country* Gibson seeks to approach such contemporary forms of locative media surveillance through his narrative. Firstly, pervasive technological surveillance is facilitated through the use of mobile phones in the novel and functions on multiple levels, since, as Joe Wiebe observes, “[e]verybody seems to be spying on everybody else in this novel” (1). In fact, mobile phones do not only serve as communication devices in the novel, but also they serve as locative devices that are used in order to determine the location of individuals as well as gather information about their activities and actions, something that is even more pronounced in *The Peripheral*, as will be shown. For example, in *Spook Country*

²⁷ M. G. and Katina Michael contend that “[i]n its ultimate form, uberveillance has to do with more than biometrics, radio-frequency identification (RFID), wearable or luggable devices” (86). Gary T. Marx resorts to another term, “new surveillance,” in order to describe a new kind of surveillance that has emerged in recent years, which is characterized by “the use of technical means to extract or create personal data (12).

Brown is constantly monitoring Tito — who is referred to as IF (Illegal Facilitator) — by putting “a bug in the IF’s phone” in order to “grab the IF’s texting, [...] both incoming and outgoing” (*Spook Country* 18). In this sense, the mobile phone turns into “a means of control and surveillance” (Lee 55). It is for this reason that Tito “seldom use[s] the same phone [...] twice” (*Spook Country* 18).²⁸ Indeed, Tito, being also aware that his whereabouts and movement in the streets of New York City are monitored through his mobile phone, immediately gets rid of it: “[w]ith half of his coffee gone, he remove[s] the plastic lid, slid[es] his phone in, and reca[ps] the paper cup, depositing it in the first trash receptacle he passe[s]” (163). However, Brown also uses a signal-grabber “to get around the IF’s habit of constantly changing phones and numbers” (307).²⁹ Finally, towards the end of the novel, Tito once again throws away his phone in order to avoid being tracked down after having finished his mission with the container. With the mobile phone posing a threat to individual privacy, it is further reinforced that Milgrim’s location is also determined by secret agents via his call to his friend Fish, even though he does not use his own but the mobile phone of a girl who works in a laundry shop. As for Hollis’s phone, it also functions as a locative device, since it is constantly monitored by Bigend, who is constantly aware of her location, having placed a scrambler on the phone wanting to ensure that their conversations are not overheard by others. Paradoxically enough, Bigend himself, who continuously watches Hollis’s moves, notes that “[s]crambled phones [...] just serve as strings around our fingers to remind us of a fundamental lack of privacy” (284). Therefore, all action taking place in *Spook Country* focuses on the presentation of the location-tracking devices that can be activated by mobile phone in an effort to expose the thinking behind such mechanisms.

²⁸ On referring to “GPS services through the mobile phone [...] provided in Korea,” Heesang Lee observes that, “while the mobile phone can be seen as a means of mobility and freedom, it can also be viewed as a means of control and surveillance. This is the reason why people,” like Tito in the novel, “want to turn off or throw away their mobile phones” (55).

²⁹ It is interesting to note that “[i]n the United States, unlike in many societies, surveillance technology is widely available to the public (even satellite imagery)” (Marx 22).

Yet, location tracking is also made feasible through other locative means of surveillance, apart from the mobile phone. For example, Brown places a surveillance device in Tito's room in order to overhear the latter's conversations, while Bigend has been tracking Bobby's truck through the use of a GPS device. Moreover, the truck Hollis is driving to Bobby's place has been programmed to constantly display its whereabouts. Surprisingly, the truck itself reveals to Bigend Hollis's exact position on the map and the route she follows — when she exclaims that “[t]his car's telling you exactly where I am,” Bigend explains to her that “[i]t's a factory option” (*Spook Country* 286). The truck here is presented as an object acting automatically.³⁰ This being the case, the novel points to a world of ultimate surveillance in which location-aware technologies render locational privacy impossible, offering the possibility to constantly determine one's exact location even involuntarily.

Considering all the above, location-aware technology is presented as emphatically threatening, as is revealed by Hollis's reactions. Hollis shows her distrust towards new media network technologies, as shown below:

The war on terror. Were they still calling it that? She'd caught some, she decided: terror. Right here in her hand, in Starbucks, afraid to trust her own phone and the net stretching out from it, strung through those creepy fake trees you saw from highways here, the cellular towers disguised with grotesque faux foliage, Cubist fronds, Art Deco conifers, a thin forest supporting an invisible grid, not unlike the one spread on Bobby's floor in flour, chalk, antrax, baby laxative, whatever it was. The trees Bobby triangulated on. The net of telephony, all digitized, and all, she had to suppose, listened to. By whoever, whatever, made the sort of things Bigend was poking at its business. Somewhere, she had to believe, such things were all too real. Maybe now, they already were. Listening

³⁰ This kind of “smart” car technology constitutes an example of ubiquitous computing, which is going to be explored in the next section on *The Peripheral*.

to her. [...] [T]ouched [...] by this new bad thing, this shadow, fallen across her. (*Spook Country* 160-61)

The connection between art and technology, which was commented upon earlier in this chapter, is *ironically* maintained here with the cellular towers being presented as “disguised with grotesque faux foliage, Cubist fronds, Art Deco conifers,” since communication technologies at the same time relate to terrorism and “[t]he war on terror,” and are thus presented as bleak and sinister. By comparing the GPS “invisible grid” to “a thin forest” as well as the cellular towers to “creepy fake trees” with “faux foliage,” Gibson, through the narrative technique of interior monologue which is evident in the above excerpt, juxtaposes the artificiality of cellular, network, and by extension locative technologies, which is emphasized by the words “fake” and “faux,” with the natural environment — “forest,” “trees,” “foliage” — onto which the GPS grid is superimposed. Additionally, the selection of the words and phrases “terror,” “creepy,” “this new bad thing,” and “shadow, fallen across her” further intensify Hollis’s predicament as well as her negative sentiments towards these technologies and the world of surveillance to which they have given shape. According to her, reality is indeterminate, as nothing is clear-cut or clearly explained — “Somewhere, she had to believe, such things were all too real”; at the same time, reality is characterized by fear and lack of trust, since she is “afraid to trust her own phone and the net stretching out from it” because “[m]aybe now, they already [were] [l]istening to her.” This distrust and emotional distress are further enhanced by the fact that, in another instance, while “open[ing] her Power Book to search for wifi, “[t]he phrase ‘trusted networks’” that appeared, “briefly made her feel like crying” because “[s]he wasn’t feeling as though she had any [trust]” (283). Therefore, networked location-aware technologies are presented in *Spook Country* as untrustworthy, since they can be used as a means of surveillance and utter control.

This argument can also be viewed in relation to Hollis's obsession with Bigend. She feels uncomfortable upon realizing that Bigend's presence has become ubiquitous thanks to the use of surveillance technologies, thinking that "[o]nce [Bigend] was established in your life, he'd be there, in some way no ordinary person, no ordinary boss, even, could be" (*Spook Country* 283). As a result, she has the impression that she is constantly watched, even at times when this may not be happening — "[m]aybe now, they already [were] [l]istening to her" (161), she is thinking at some point, as shown earlier. Consequently, she appears to be reluctant to trust him, deciding to conceal information about Bobby and his team's actions from him. This points to a world in which human relationships are characterized by lack of substance and insincerity. Therefore, as Gibson himself also argues in an interview to Liane Hansen, it is not only that "[w]e're exposed to Big Brother" nowadays, but "Big Brother is exposed to us" as well. Indeed, Hollis in the novel is exposed to Bigend via locative technologies, but Bigend is also exposed because Hollis gradually becomes aware of his intentions and tries to avoid him.³¹

All these highlight that Gibson in *Spook Country* reconfigures the concept of surveillance by placing it within the context of locative media technologies, here explored through a fictional narrative. This helps him expose the opposing attitudes expressed about locative media and its effects throughout the novel through the use of symbolism and imagery. In particular, another locative media artwork in *Spook Country*, the Mongolian Death Worm, effectively captures this dual function of locative media in *Spook Country* as both utopian and dystopian technologies. As Hollis reveals, the Death Worm is "a sort of mascot for [her] anxiety," as "it became the shape [she]'d give to any major fear [she] couldn't quite get a handle on[,] [...] the idea of Bigend and his magazine that doesn't quite exist, this level of weirdness he's nosed himself into, and taken [her] with him" (*Spook Country* 349). Although standing as

³¹ In his interview, Gibson states that "Big Brother is exposed to us" in the sense that, for example, "if you're a crooked politician today, [...] and you're lying, [...] [w]e're going to know about it somewhere down the road because in the digital world, [...] it's not that easy to keep a secret for very long. Everything is porous. [...] Big Brother is watching us and we're watching Big Brother" (Hansen).

a symbol of Hollis's fear of locative media and its connection with the world of surveillance, the Mongolian Death Worm acquires ambiguous connotations in the novel, as is evident in the very last sentence, where it is described as follows: "Alberto's giant cartoon rendition of the Mongolian Death Worm, its tail wound through the various windows of Bigend's pyramidal aerie like an eel through the skull of a cow, waved imperially, tall and scarlet, in the night" (370). It seems that the novel ends with Hollis's recognition of the inevitable co-existence of the two facets of locative media, which is articulated verbally in this sentence through the use of antithetical words that allude, on the one hand, to the entertaining aspect of locative media — "cartoon" — and, on the other hand, to the dystopian facet of such technologies — "death," and "skull" — because of their connection to surveillance technologies. Despite its cartoonish image, the Death Worm still appears to be threatening as it "waved imperially, tall and scarlet, in the night," while Bigend's threatening presence also lurks as "pyramidal aerie."³² From a tool of artistic liberation and practice in the beginning of the novel, emanating both feelings of awe and confusion, locative media gradually turns into a surveillance mechanism that provokes feelings of frustration and fear to Hollis. Gibson creates an ambiguous tone in the novel, prompting his readers to be critical towards locative technologies by presenting both sides to them.

Actually, the novel begins and ends with Hollis experiencing Alberto's locative media art: in the first chapter of the novel, she has her first locative experience, while in the very last scene, she is presented to be viewing another locative work, the Mongolian Death Worm, which is also constructed by Alberto. In the end of the novel, Hollis appears to have come to terms with her own fears of the surveillance world triggered by the locative media technologies featuring in the pages of *Spook Country*. These fears have eventually been replaced by

³² Interestingly, Bigend's exploitative powers and incentives as well as his manipulative character are fully disclosed in the last book of the Bigend trilogy, *Zero History* (2010).

confusion again, since, as Inchmale in the novel notices, she does not “seem actually frightened now,” but “[c]onfused” (*Spook Country* 349). Having said all this, it seems that, by choosing to start and end his novel with references to locative media and their social effects, Gibson highlights the major role these technologies have played in the unfolding of his narrative, but at the same time the major role the novel’s narrative has played in helping readers delve into their operation.

Taking all the above into account, one could argue that Gibson explores the extent to which locative media can be used as a creative artistic tool and as a surveillance mechanism. Locative media in *Spook Country* serves as a form of fictional embedment, but also, following Drew Hemment’s views, as “embedded media,” which is a descriptive term that “highlight[s] the way in which Locative Media is embedded not only in geographical space but political and cultural space as well” (“Locative Dystopia”). Indeed, locative media is presented as a kind of technology that can be both an oppressive tool of surveillance and a creative apparatus of artistic expression.

However, despite its newness, locative media technology ought not to be seen as distinct but as part of other preceding technologies. Indeed, Gibson uses locative media in his attempt to reach out in the past in order to shed light on the technological changes that occur in the present, endowing his narrative in *Spook Country* with a reflective and retrospective quality. Gibson’s attempt to unveil the historical layers underlying locative media technologies in *Spook Country* invites readers to take a retrospective glance at the early computer technologies of the 1960s.

In *Spook Country*, this becomes evident in the language to which Gibson resorts in order to bridge his character experiences with early digital gaming technology. Specifically, the word “pong” that appears merely as a title in one of the chapters in *Spook Country* (193), and the word “ping” that is mentioned in another chapter as a process of locating the container’s

whereabouts, constitute two interesting terms. Bobby Chombo comments on the “ping” process, stating that “[t]hey’ve pinged [the container] three times already [...] and I think they’re pinging it from here, and I think they’re pinging it as they drive around, trying for a visual” (*Spook Country* 290). The reference to specialized technological terminology may be alienating for the readers, but it has a metafictional quality for the narrative. In particular, Tito, one of the characters, inquires about the meaning of the term “ping”: “What did ‘pinged’ mean?” (290). For one to be able to comprehend these terms, “ping” and “pong,” one needs to view current locative media technologies in the context of early digital culture. In his article, “The Game Player’s Duty: The User as the Gestalt of the Ports,” Claus Pias provides a detailed account of the “Ping-Pong” communication technology that developed in the 1960s. He explains that “ping” is a command, a “program [that] sends a single data packet to a particular IP address and waits for it to come back” (166). It could be argued that the verb “ping,” which “means to send a sonar impulse” (Pias 167), is used in *Spook Country* in order to capture the presence of a possible target in physical space. In early computer gaming culture, Ping, but also Pong, were used to refer to the ways in which game players and computers communicated; for example, in the case of *Tennis for Two*, one of the first computer games ever developed, the player’s position is traced by the machine via the emission of signals, as Pias attests (170, 175). The computer/machine pings in order to locate the target player, who then pongs the machine back. The ping-pong communication system was later applied to digital computing in order to denote interaction between humans and machines.³³ Importantly, according to Pias, “*Ping* became a digital, monophonic locating procedure based on the difference between sound and silence or presence and absence” (168, emphasis in the original). In *Spook Country* the Ping-Pong references highlight the absence or presence of signal while trying to detect the

³³ Claus Pias states that “[t]he tennis game [...] describes the possibility condition for human and machine together to be more than they are separately. [...] Ping-Pong exists everywhere that humans are involved with computers, in the games of fire control systems as well as in Word, [...] [and] in browsing the Internet” (178-79).

location of the container. As Garreth, another character in *Spook Country*, also reveals to Hollis, “this particular container had been equipped with a unit that monitored its whereabouts, and to an extent its integrity, and covertly broadcast the information to the parties involved” (*Spook Country* 359-60). Using locative media art as a pretext, Bobby actually resorts to locative media technologies in order to fulfill his assigned “task of fishing one particular signal” (195), the container’s pong. At the same time, Bobby and his partners ping the container towards the end of the novel, also sending radio signals in order to locate it. What Gibson aims to illustrate with the use of such wording in *Spook Country* is that the function of locative media technologies is highly dependent on signal communication technologies of the past which are nowadays used to determine the location of objects and individuals. The communication between the user and the machine via the use of the Ping-Pong signals verifies the reciprocal relationship that exists between them. Indeed, it is not only “[t]he machine [that] addresses the user,” but “[t]he user addresses a machine” (Pias 179). Therefore, both the machine and the user are caught up into a co-influential and co-engineering function.

In addition, in establishing this connection between old and new media technologies, Gibson “reveal[s] the past as in some way always present but also [...] the present and future as in some way already past” (Sobchack 325). Actually, in *Spook Country* Gibson does not merely write about new media technologies, but by providing a link with the past he casts a retrospective glance at current technologies. It becomes evident in the novel that new media technologies ought not to be entirely considered as “new” because they always constitute part of older technologies. Thus, *Spook Country* is not strictly about current locative media technologies, but, by extension, about the “re-presented” past of these technologies (Sobchack 323). The newness of locative media technologies then lies in the novel ways they are connected with technologies of the past. In the novel, the author resorts to multiple temporalities with a view to “excavating the past in order to understand the present and the

future” (Parikka 2). He deftly manages to provide a more solid framework through which locative media can be examined, one that places computer technologies of the past, even obliquely, on the foreground. Thus, according to Gibson, locative media has not emerged as purely independent technologies, but they are informed by past technologies that are now re-appropriated. Ultimately, Gibson implies that the process of location tracking is practiced through different yet interconnected medial modes that originate from early computer gaming and existing locative technologies, as is for example the ping-pong communication system. Locative media is presented as being a constituent part in the evolutionary chain of previous and current media technologies.

Extending this argument even further, one can claim that in linking new media technologies with past ones, Gibson’s *Spook Country* does not only aim to question the novelty of new media, but also to reveal the material aspect of these technologies. Interestingly, a shift of attention has recently been observed to the materiality of new media technologies, which has been defined by Rowan Wilken and Gerard Goggin as “new materialism” and involves the exploration of technologies “both as ‘things’,” but also “in terms of their origins, how they shape what we do, and how they connect and interoperate” (10). This overtly pronounced materiality should be viewed as a reaction to “the perceived immateriality brought by digital culture” (Parikka 84), intending to counterbalance contemporary western culture’s interest in the virtuality and invisibility of cyberspatial technologies. As a matter of fact, the concept of materiality in *Spook Country* should not only be examined in the context of the production of locative space, but also as an essential feature of it, as I have argued earlier in this chapter. In fact, the author seems to be shedding light on what Jussi Parikka refers to as the “[m]aterialities of technologies,” which is a media-archaeological process of “digging into how technologies

work” (164; emphasis in the original).³⁴ By exposing the inner workings of locative media technologies through his references to signal communication technologies of the past, it is as if the author metaphorically enters “the other side of the screen,” to use Bobby’s words in the novel (*Spook Country* 67). That is to say, the fictional characters in *Spook Country* resemble a “media archaeologist [who goes] ‘under the hood’ of software, as well as hardware” in their attempt to explore “what happens inside the machine” (Parikka 89, 86).

Last but not least, even the use of portable media technologies is refashioned in *Spook Country*, as these can obliquely be examined in conjunction with locative media technologies. For instance, the iPod is not only used to listen to music; the iPods that Tito delivers to Garreth serve as storage devices in which information is hidden “through a lot of music” (*Spook Country* 196). What Bobby does is to encrypt evidence concerning the actual location of the container “steganographically on the drives of iPods” in order to “[send] it out of the United States” (196, 107). The term “steganography” is used in *Spook Country* to refer to this very “practice of hiding [...] messages” in other kinds of information (qtd. in Kirschenbaum, *Kindle Location* 1524). As a result, *Spook Country* proposes alternative uses of already existing media. The iPod then turns into a storage container of information that can potentially be used to trace the location of a particular object if specific computational procedures are applied. As is also evident in the novel, “if you have sufficiently, hugely powerful decryption capacities, you can pull it out of the music” (*Spook Country* 196). What Gibson indirectly underlines here is the forensic materiality of technologies,³⁵ which, as Matthew G. Kirschenbaum points out in his *Mechanisms: New Media and the Forensic Imagination* (2008), is “revealed in the amazing

³⁴ A media archaeological approach is beyond the scope of this project, but it constitutes a valid thread that derives from this dissertation and could be developed in a future project. For more information on media archaeology, see Jussi Parikka, *What Is Media Archaeology?* (2012).

³⁵ Matthew G. Kirschenbaum defines computer forensics as practically “working with hard drives and other storage media [...] to locate files, metadata, or fragments of files that someone may or may not have taken active steps to expunge, and creating the conditions necessary to ensure that the data has not been tampered with in the process of its recovery or analysis” (*Kindle Location* 548).

variety of surfaces, substrates, sealants, and other matériel that have been used over the years as computational storage media, and in the engineering, ergonomic, and labor practices that attend computation” (Kindle Location 197). In the novel, information about the container’s location is stored in a material medium (the iPod), which was not originally intended to be a “computational storage medi[um]” (Kirschenbaum, Kindle Location 197), but it is refashioned to become “a means of data transfer” (*Spook Country* 34). Hence, *Spook Country* calls attention to the processes of concealing and retrieving electronic information via computational means. Technical vocabulary, such as “steganography,” “ping,” and “pong,” is used here in order to emphasize the fact that, as Rapatzikou has observed, in “invent[ing] a new language of rendering visible contemporary technologically-defined processes,” Gibson’s fiction “bears witness to the fact that culture grows more technological and the very act of representing this growth, judging from the images and vocabulary used, is becoming more technical” (214). The novel thus exposes the underlying function of technologies in order to invite the readers to adopt a critical attitude towards them.

All things considered, *Spook Country* seems to be drawing upon the broader theoretical framework through which locative media can be approached. Locative media is utilized as a fictional embedment in the novel in an attempt to familiarize readers with this newly-emergent technology, while, at the same time, confronting them with how the characters feel about locative media in order to be in the position to develop a critical thinking regarding these technologies. In fact, *Spook Country* uses the main characters — Hollis, Alberto, and Bigend — in order to capture the ambivalent attitude towards current emerging technologies by depicting two different views towards them. In being embedded and remediated in the print medium, locative art then functions in the novel as a means to demonstrate the ways in which locative space is visually as well as verbally/textually constructed. Nevertheless, *Spook Country* does not merely seek to view locative media as both a liberating tool and an oppressive

mechanism, but it aims to acquaint its readers with the different stages of technological development. In other words, fiction here serves as a way to help readers understand how locative media work. When locative media is remediated through the print medium, it brings forward different considerations of how these technologies can be approached. As such, the narrative “function[s] on two levels,” to use Rapatzikou’s terms when she describes Gibson’s cyberpunk fictions (xv), which are also applicable to this novel: one the one hand, it draws the readers’ attention to what they “immediately perceive through the use of sensory effects” (xv), that is the locative works themselves, but also emphasis is placed on the “underlying [level], which aims to reveal what lies beneath the surface of the constituent elements of the world portrayed” (xv), which is the function of locative technologies as well as the possible repercussions of their use and the subsequent need to adopt a critical mind towards them.

In the light of all the above, this section of the present chapter has attempted to view *Spook Country* as a case study of the affordances and limitations or risks of locative media technologies. The novel’s cultural value lies in the fact that through literature the readers are allowed to study the effects of new technologies, something that is also evident in *The Peripheral*, to be discussed next. The following section, with the examination of Gibson’s *The Peripheral*, will investigate the possible ways in which these technologies can be regarded as a point of departure, paving the path towards the emergence and development of pervasive or ubiquitous computing; in other words, pervasive computing will be viewed as the next evolutionary stage of locative media technologies. Gibson seems to be creating a continuum between past computer technologies, locative media and pervasive computing technologies through his novels. While in *Spook Country* the author examines locative media by resorting to media technologies of the past, in *The Peripheral* he connects locative media with highly-advanced mobile and ubiquitous computing technologies of the future.

1.2 From Locative Media to Ubiquitous Computing: Drone Media Technologies in William Gibson's *The Peripheral*

While *Spook Country* focuses on the exploration of locative and mobile media technologies, *The Peripheral* (2014) takes these newly-emergent technologies a step further in an effort to examine their future development. Following Mark Andrejevic's theory about locative media technologies, this section will explore the extent to which locative media can be viewed as part of ubiquitous computing or ubicomp in the novel. The author thus envisions a post-locative and post-mobile future, challenging spatiality and spatiotemporal experiences as far as the notions of immersion, materiality and embodiment are concerned when examined in conjunction with the mobile phone user. As in *Spook Country*, locative and mobile technology functions in *The Peripheral* as a form of fictional embedding, with smartphone technology serving as a recurrent motif throughout the narrative.

In his article "Becoming Drones: Smartphone Probes and Distributed Sensing," Mark Andrejevic stresses the significance of the drone figure in the field of locative media technologies: he invites "a broader reading of the figure of the drone in which the logics of mobility, sensing, ubiquity, and automation coalesce" (196). To be more specific, Andrejevic "proposes viewing the smartphone (and, by extension, the laptop, tablet, and other such devices) as (in addition to other functions) drone/probe" and interprets "locative media as emerging remote-sensing networks" that "incorporate the drone logics of automation and action and sensing at a distance" (197). Hence, the focal point of the analysis that follows is the presentation of and commentary on the ways in which the smartphone turns into a drone-like locative medium in the novel used for the collection and processing of information about individuals.³⁶ What Gibson attempts to shed light on through *The Peripheral* is the effects of

³⁶ Mark Andrejevic writes that "[i]f one of the key 'advances' of the development of locative media is increased specification and thus enhanced data collection and targeting, such advances simultaneously pose the problem of information glut" (204).

smartphone technologies on the way we perceive everyday reality and, more specifically, on both the affordances and the repercussions of the use of these technologies.

In his article, Andrejevic explores the figure of the drone as a technological artifact that challenges information distribution and contemporary notions of surveillance. By viewing the smartphone “as a drone-like probe,” to use Andrejevic’s words, this section will pay attention to its function as a “networked, interactive device” ideal for data aggregation and mood monitoring (197). While *Spook Country* explored early locative media technologies of the 2000s, in *The Peripheral* emphasis is placed on how futuristic smartphone technologies functioning as locative media are represented. What is remediated in printed form here has to do with the ways the characters of the novel interact with each other by using smartphone (location-aware) technologies. The novel invites a reconsideration of the relationship between virtual and physical space within the context of mobile technologies, emphasizing how embodied, hybrid space is constructed through the characters’ interaction with these technologies and how these technologies are represented. The literary value of the novel lies in the fact that it not only exposes the ways in which mobile and ubiquitous computing technologies work, facilitating our everyday social interactions, but importantly, it raises our awareness regarding the underlying dangers lurking behind their use. By resorting to the figure of the drone, this section insinuates that, although smartphone technologies serve as a means of socialization and communication, they can potentially turn into surveillance technologies.

To begin with, location-based social networks (LBSNs) or locative mobile social networks (LMSNs)³⁷ are presented in *The Peripheral* as a means of “location tracking via mobile phones” (Andrejevic 197). In fact, Badger in the novel is a mobile locative application that enables users to share their location. This application displays a virtual representation of Flynne’s vicinity on her mobile interface: “She swung her phone through the display, checking

³⁷ Both terms can be used interchangeably (Gordon and de Souza e Silva 80, note 1).

Badger's map of the county" (*The Peripheral* 9). Badger indicates the exact location of Flynne's friends, appearing as colored badges on its virtual map, as well as their activities and feelings in real time depending on the color of the badges, as the following excerpt illustrates: "Shaylene's badge was in Forever Fab, an anxious segment of purple in its emo ring. Nobody looked to be up to much, which wasn't exactly a surprise. Madison and Janice were gaming [...]. They both had rings beige, for bored shitless, but then they always had them that way. Made four people she knew working tonight, counting her" (9). The different badge colors denote the users' mood — purple represents anxiety and beige stands for boredom³⁸ — while the location of the badges on the virtual map corresponds to actual places in physical space, such as Forever Fab and the 3D-print shop where Shaylene works. As a result, the mobile phone becomes not only a location-tracking, but also a mood-monitoring device.³⁹

Considering also Lee Rainie and Barry Wellman's prediction that "[i]n the future, people could use geo-aware tools to scan places to see if friends, friends of friends, or followers are in the vicinity" (283), one could argue that *The Peripheral* projects a future in which location sharing may serve as a form of coveillance,⁴⁰ in which users of (locative) social media watch each other through their mobile devices. In fact, as Flynne reveals to Wilf, Badger is a type of social media application that can be used in order to "[keep] track of your friends" (*The*

³⁸ This also is reminiscent of the ways in which mobile social media applications work, allowing users to select among different colors in order to denote their status, depending for example on whether or not they are available to chat online.

³⁹ Andrejevic writes that "we might describe mobile phones as always-on mood probes, circulating among the populace in order to harvest useful affective data for purposes ranging from marketing to academic research to therapy and health care" (199). He continues, arguing that "[t]he stated goal of the development of mood-monitoring capabilities is to assist communication by adding mood awareness to mediated forms of interaction and to assist in data sorting and filtering—that is, helping to provide users with services and communications that are targeted not just to their behavior, to their interests, and to their location but also to their mood" (202). Importantly, "[m]arketers [...] are particularly interested in affective states and influences because of the impact these might have on consumption decisions" (200). For more information on "locative-media-enabled mood tracking" (202), see Andrejevic 199-202.

⁴⁰ This has also been described by other critics as "collateral surveillance." Specifically, Eric Gordon and Adriana de Souza e Silva have noted that "[c]ollateral surveillance or 'people tracking' [...] is the act of letting others — generally, those you know — know where you are. LBSNs and games are often the target of such concerns. These practices are associated with a loss of control over one's personal space" (139). Similarly, James Meese, discussing the extent to which Google Glass has caused privacy concerns, defines collateral surveillance as "surveillance conducted horizontally by people rather than institutions" (138).

Peripheral 389). Indeed, every time Flynnne searches for her friends she can find them via Badger, as she does with Shaylene: “She checked Shaylene on Badger. Still there, still ringing purple” (29). Even when Janice asks her where Madison is, Flynnne can make guesses as regards his location and activity, as she is already aware that the “last time [she] checked Badger” Madison was “[o]ver at Conner’s, with Mason, working on an Army copter for Burton,” and thus she can assume that he “[m]ight be home now” (253). But location sharing is also a form of surveillance, as becomes evident in another instance in the novel, when Flynnne checks Badger once again: “Shaylene was already back at Fab, still showing anxiety, and Burton was now indicated off-map. [...] She frowned. Homes would know that she’d just checked that, which was okay. What wasn’t okay would be if they noticed that her phone was funny” (44). Here, Homes, a multinational corporation, also collects locational data through the smartphone in order to track users of locative media applications like Badger. In line with all the above examples, this form of data collection (also known as data mining) via the use of Badger involves the disclosure not only of location but also of other types of information relating to the Badger users with regard to their feelings, real-time activities, and status of their mobile devices. For example, Shaylene still feels anxious as she is “still ringing purple” (29), Flynnne is informed that Madison is “working on an Army copter” (253), and Homes will most probably discover “that [Flynnne’s] phone was funny” (44) due to it being 3D-printed. In *The Peripheral* then surveillance is not limited to the collection of location information only, since specific individuals are targeted via locative technologies and additional information about them can be easily gathered. This can also be described as “participatory surveillance,” which, according to Farman, refers to the mode in which “users of locative social media [...] [make] their locations visible to each other in real time” (*Mobile Interface Theory* 68). This kind of “locative surveillance” involves reciprocity, since one is “viewing while simultaneously being viewed” (Farman 69, 68), as will be analyzed further down. Gibson thus presents his readers with an

ambiguous situation in order to comment on the ways in which locative social media applications function: as communication tools, but also potentially as surveillance devices, as mentioned earlier.

Elaborating on the issue of surveillance, one can observe that *The Peripheral* follows the same pattern as *Spook Country*, since technological surveillance and location tracking are rendered ubiquitous through the use of smartphone technology. For instance, when in the novel Flynne is kidnapped by Pickett, her mobile phone is used as a location-tracking device so that her people can save her after having located her. Pickett expresses the concern that if “[w]e use your phone from here, [...] they’ll know exactly where it is, where you are” (*The Peripheral* 295). However, location tracking in *The Peripheral* is not exclusively achieved through the smartphone. Indeed, Flynne is given a “glossy black pill,” which constantly “keep[s] track of where [she’s] at” (278). This “[t]racker,” as is mentioned in the novel, functions as a locative device since the “[c]ompany [that] makes it has its own sitting of low-altitude satellites” (278). Therefore, even though her phone has been stolen, Flynne can still be traced through the use of a tracker “[b]ond[ed] to [her] stomach lining, good for six months, then it disassembles itself and nature takes its course” (278). Advanced locative media technologies like this become part of the human body,⁴¹ offering Flynne’s team the opportunity not only to gather locational data about her, but also information about whether she is alive or not — the “[t]racker in her stomach’s giv[es] them basic vitals” (298). Hence, the example of the black pill demonstrates, firstly, that location awareness leads to and is combined with other types of information that can be transmitted via locative means, as is also the case with Badger, and, secondly, that location awareness becomes the property of other, not necessarily smartphone, devices.

⁴¹ The integration of locative media in the human body is a topic that will be discussed further down in more detail.

What all the above examples illustrate is that *The Peripheral* seeks to undermine Jordan Frith's view that sharing location data via locative media applications "work[s] as a general 'I am here' broadcast that people could either acknowledge or ignore with few social repercussions" (71). The author proves instead that what is important when it comes to locative tracking practices has to do with the different kinds of information these provide about individuals. This being the case, the smartphone serves as an anchor or portal to remote physical spaces, revealing information about individuals in those spaces telepresently via locative means. Following Andrejevic's paradigm, I would call this process "space droning," whereby the smartphone and other locative tracking mechanisms and inventions, like the black pill mentioned in *The Peripheral*, turn into mood-tracking and (locational) data-capturing drone devices that permit and promote the inspection of people in remote geographies via locative telepresence.⁴² Through this process, the notion of location per se is reconfigured in *The Peripheral*, where locative technologies transform into location-tracking devices. The way this is presented in the novel accentuates the need to adopt a critical frame of mind regarding the use of locative smartphone technologies and the implications of location-sharing.

Rainie and Wellman's theory about mirror worlds seems to be appropriate here when it comes to the spatial practices presented in *The Peripheral*. The authors define mirror worlds as "another form of physical and digital convergence to augmented depictions of environments" (283). This is evident in the way Badger is used, since it can be regarded as a mirror world in that it "augment[s] representations of physical spaces, such as maps" (283),⁴³ which is also the case in *Ingress*, as will be shown in the final chapter of this dissertation.

⁴² This is the case with current social media applications, like Facebook for example, which allow one to discover one's location, feelings, and activities.

⁴³ Lee Rainie and Barry Wellman write: "*Mirror worlds* are another form of physical and digital convergence to augmented depictions of environments. Mirror worlds augment representations of physical spaces, such as maps. They might involve geographic information systems (GIS) for mapping, modeling, annotating, sensor-based inputs, and location-aware technology. Google Earth is the prototypical mirror world as it is a web-based digital map that adds cartographic and informational overlays, providing contours and alerts about important buildings" (283, emphasis in the original).

Badger actually blurs the boundaries between physical and digital space for the creation of an enhanced space, in which human connections within physical space are digitally represented on a locative map on the interface of the mobile device; in this manner, the physical space is augmented digitally in order to represent not only the users' physical location, but also their mood and current activities, as discussed earlier. The virtual space the Badger produces is modelled on physical space in order to create a network of individuals through the use of their mobile phones and signals they send, which reveal, alongside other pieces of information, the users' exact location. Such a visualization and conception of space verifies Rainie and Wellman's contention that "mirror worlds can make networked individuals more aware of each other's physical environments" (283-84). By connecting with her friends on Badger, Flynnne acts as a "networked individual," to use Rainie and Wellman's terminology to describe her condition.⁴⁴ Flynnne appears to be part of a (local) mobile social network in which all members are connected with each other via their mobile phone. As a networked individual, Flynnne is keen on hooking up with a social group/network of individuals, as is implied in the following phrase: "Made four people she knew working tonight, counting her" (*The Peripheral* 9). In this regard, location sharing via locative mobile (social) media⁴⁵ functions as a means through which one can connect and "maintain social bonds" with other members of the same network (Katz and Lai 58).⁴⁶ In such social networks, the users' location can serve as "the central premise of interaction," in that the networks "are organized by the physical proximity of users

⁴⁴ Rainie and Wellman "call networked individualism an 'operating system' because it describes the ways in which people connect, communicate, and exchange information. [They] also use the phrase because it underlines the fact that societies—like computer systems—have networked structures that provide opportunities and constraints, rules and procedures. The phrase echoes the reality of today's technology: Most people play and work using computers and mobile devices that run on operating systems" (7).

⁴⁵ In their study *Net Locality: Why Location Matters in a Networked World* (2012), locative media theorists Gordon and de Souza e Silva have also referred to location awareness as an embedded service within social media networks, such as Facebook and Twitter (59). Location awareness was embedded in Facebook and Twitter in 2010 (note 2, 80). Leighton Evans and Michael Saker also write about the embeddedness of location, testifying that, "while individual LBSN applications are disappearing, their architecture and functioning are becoming stable parts of other, bigger social networks" (12).

⁴⁶ James E. Katz and Chih-Hui Lai argue that "exchanging information about each other's status and the physical location is a fundamental mechanism of being part of a group" (58).

to one another” (Gordon and de Souza e Silva 59, 60). Location sharing, as it features in *The Peripheral*, may potentially insinuate face-to-face interaction among the members of the network, but also it serves as a way “to position [oneself] relationally to the members of [a particular] social network” (Frith 68). Indeed, it appears that, while Flynnne has the opportunity to engage in personal meetings with her friends in the physical environment — “She checked Shaylene on Badger. Still there, still ringing purple. She’d ride over there” (*The Peripheral* 29) — she seems to be more interested in maintaining a sense of co-presence or better network presence with others who appear to be members of the same online network as well.⁴⁷ In line with all the above, while *Spook Country* as mentioned in the previous section remediates locative media art works, *The Peripheral* appears to be remediating locative mobile applications and social networks. The transference of this activity in a literary narrative brings forth the need to reflect on the underlying effects of these technologies on our social life and the changes they have brought about in the ways we perceive contemporary technological reality.

Nevertheless, in a fashion reminiscent of social media networks like Twitter, Badger in *The Peripheral* does promote dialogue and communication among its members, since it enables them to engage in conversations about various social topics and current news. For instance, when the global economy in Flynnne’s world appears to be changing due to the intervention of forces from Wilf’s world, the effects of this intervention are also evident in Badger’s mirror world: “Markets all screwy everywhere, everybody’s edgy, Badger’s buzzing, crazy rumors” (*The Peripheral* 270). The fact that Badger is “buzzing” verifies the communicative and pervasive nature of social media networks as well as their influential role in the spreadability of news content. In the context of the novel, locative media applications and networked

⁴⁷ Larissa Hjorth and Ingrid Richardson differentiate between three modes of presence, all of which will be discussed further down in the present chapter. They define co-presence as “being with others across a spectrum of physical, virtual, and hybrid spaces[,] network presence [as] [b]eing online with others[,] and telepresence [as] [m]ediated presence such as that offered by augmented reality games and applications” (7).

technologies are not distant, abstract, and unfamiliar, but they are already an inseparable part of contemporary society. This adds to the contemporaneous feeling “Gibson’s science fiction realism” creates (McFarlane 121) by reflecting the ways in which we interact with these technologies nowadays.

Moreover, what becomes evident in *The Peripheral*’s narrative is the broadening of mobile social networks and the ubiquity of location awareness. Ubiquitous computing in *The Peripheral* leads to the redefinition of the notion of surveillance. Gibson gradually extends the network logic of surveillance that is actualized via locative social media applications by projecting an ever-expanding system of networked connectivity through the use of ubiquitous (mobile) computing technologies.⁴⁸ The smartphone in the novel “encapsulates the emerging logic of portable, always-on, distributed, ubiquitous, and automated information capture,” to use Andrejevic’s words (195). In what follows, Andrejevic’s theory will be used in order to examine the ways in which “the figure of the drone [...] serves as mediator for both information collection and a certain type of automated action or response at a distance” (197), as this is evidenced in the novel. This being the case, attention will be paid to the ways in which *The Peripheral* captures the transition from locative social media to a ubiquitous system of data mining through the incorporation of the smartphone and location awareness in the human body. Gibson introduces in his novel at the same time an anti-anthropocentric worldview in which humans are continuously watched not only by other humans, as is also the case in *Spook Country*, but most importantly (albeit paradoxically) by things/objects. Gibson investigates the extent to which these objects are under human control or they are gradually developing an intelligence of their own, as will be shown further down, illustrating once again the double function of location-aware technologies.

⁴⁸ In relation to this, Anthony Elliott and John Urry write that “[i]n the globalized swirl of mobile systems and technologies, people characterized by ‘networked individualism’ are linked together by complex systems of scheduling, monitoring, surveillance and regulation” (8).

In *The Peripheral*, with the narrative taking place in the twenty-second century, the mobile phone device has already been integrated in the human body to the extent that human vision appears to be equated with the smartphone interface. In fact, the novel depicts a mobile telecommunication system in which the mobile screen is directly connected to the human eye through the user's nervous system. In this case, the interface of the mobile phone is the human body itself, and specifically the human eye. Indeed, from the beginning of the novel, the readers are acquainted with a new form of mobile communication that includes not only voice, but also moving images appearing in the characters' eye cortex instead of the mobile phone screen. Two of the characters in the novel, Rainey and Wilf, engage in the following phone call: "Netherton woke to Rainey's sigil, pulsing behind his lids at the rate of a testing heartbeat. He opened his eyes. Knowing better than to move his head, he confirmed that he was in bed, alone. [...] Rainey's sigil began to strobe, demandingly" (*The Peripheral* 5). The smartphone notifies its user of the phone call by projecting a sigil or symbol of different colors and shapes on the eye cortex.

The attention that is paid here to the visual potential of mobile phone communication is further intensified by the use of video sharing in the form of live feeds projected once again on the user's eye. Specifically, Wilf's smartphone, and by extension, his body, since it is technologically augmented to incorporate the mobile device, can see directly what Lorenzo is actually capturing with his eye-camera in real time. For example, Wilf meets his colleague, Rainey, through Lorenzo, since live action feeds from Lorenzo's vision are transmitted to Wilf's field of vision. Lorenzo functions as "Rainey's cameraperson" (*The Peripheral* 10) because Wilf sees Rainey through Lorenzo's eyes: "[Wilf] saw [Rainey] now, or rather Lorenzo did, in her sheepskin flying jacket, sunglasses" (10). This creates an effect of embeddedness and mediation of senses that alludes to the kind of social interactions taking place nowadays through the use of social media platforms hosted in screen-based

technologies.⁴⁹ The twist that the novel offers here is that the mobile phone is embodied, as it becomes part of the human body, and, as a result, Wilf experiences the action that is taking place in a specific location telepresently through video sharing. It appears that Lorenzo's eyes function as a drone camera that creates an immersive effect for Wilf, since the internalization of the mobile screen in Wilf's body leads to a kind of transparent immediacy. As Ingrid Richardson also claims regarding portable communication devices, "[i]n the optimal embodiment relation, the device should become transparent; the 'best' usability is one which recedes from the user's awareness, such that the liminal gap between hand and instrument goes all but unnoticed" ("Mobile Technosoma"). The mobile device is rendered transparent and invisible to other users in *The Peripheral*, since Wilf's phone activities are performed haptically: this means that his bodily movements correspond to a specific activity on the mobile screen, although instead of using his finger to pause the projection of feeds in his field of vision, as would be the case with regular mobile phones used nowadays, Wilf "swipe[s] his tongue from right to left, across the roof of his mouth, blanking his phone" (*The Peripheral* 24).⁵⁰

In another instance, during the battle that takes place between Daedra and the neoprimitives (who are called "patchers" in the narrative), Wilf, in his attempt to control the multiple feeds shown on his screen, "double-tap[s] the roof of his mouth, causing the feeds, left and right, from their respective corners of the square, to show him the boss patcher and his cohort of eleven, looking up, unmoving" (*The Peripheral* 24). The mobile phone device then in *The Peripheral* becomes what Bolter and Grusin would call an "interfaceless" interface, in which there [are] no recognizable electronic tools," since "the user [moves] through the space

⁴⁹ This kind of technology is not new in Gibson's writing. In *Neuromancer*, simstim technology is a device that allows characters to see through the other characters' eyes, sharing vision and other feelings. For more information, see Rapatzikou's *Gothic Motifs in the Fiction of William Gibson* (2004).

⁵⁰ This kind of technology that Gibson anticipates in this novel has already started being developed. For instance, in 2014 Samsung in collaboration with Google started designing smart contact lenses "that can project images straight into the user's eye," as happens in Wilf's case. By wearing these lenses, "users will be able to enjoy augmented reality content more discreetly" (Santos). It seems that this is a continuation of Google Glass technology, which will be commented on further down. Evidently, with *The Peripheral* Gibson attempts to capture the latest trends in wearable and ubiquitous computing technologies.

interacting with objects ‘naturally,’ as she does in the physical world” (23). Wilf actually moves in his room, while, at the same time, he is watching as well as talking to people who are situated at different locations by simply using his phone. Gibson’s embodied presentation of the smartphone counters Richardson’s argument that “phenomenologically, hand–tool relations are one of the most significant for our corporeal schematics” (“Pocket” 210). The hand no longer plays any role in the way mobile communication is conducted, as it is substituted by other bodily parts that enhance and elevate the whole communication experience to a haptic level. As Anne McFarlane correctly observes then, Wilf’s “intimate relationship” with technology that is evident through the incorporation of the mobile phone in the human body constitutes a metaphor between users and the ubiquitous mobile phone screen (124-25),⁵¹ which has nowadays become an inseparable part of the human body.

However, the human body becomes hybridized, combining organic with machinic elements as a result of this kind of convergence with the mobile phone. Although the idea of the hybrid body is a theme that Gibson touches upon in his cyberpunk novels,⁵² in this novel Gibson revisits and reconfigures this concept by viewing it from the lens of mobile technologies. In this regard, Wilf’s technologically augmented/enhanced body can be examined in relation to Richardson’s theory on mobile media and, more specifically, on the (metaphorical) incorporation of mobile media in the human body.⁵³ In fact, Richardson

⁵¹ Although Anna McFarlane also explores the issue of the body as a drone in her article, she does not explicitly refer to Wilf’s technosoma as a drone nor does she view this droning process as part of locative media technologies that also affects the way space is represented, as I intend to do further down in my current analysis. She focuses instead on the haptic aspect of mobile technologies and Gibson’s “elevating the haptic over the optic” in *The Peripheral* (121).

⁵² In his previous novels, Gibson explores the themes of genetic modification, drugs, alcohol, and prosthetics in relation to the human body. The idea of bodily transformation through biotechnology, genetic engineering and prosthetics is immanent within cyberpunk science fiction. For more information, see Rapatzikou’s *Gothic Motifs in the Fiction of William Gibson* (2004).

⁵³ The incorporation of the smartphone in the human body and the death of the smartphone are ideas that scientists and mobile phone designers have already envisioned. For example, Matt Weinberger writes that “if and when the smartphone dies, [...] [i]t’ll be the end of machines that we carry with us passively and the beginning of something that bridges our bodies straight into the ebb and flow of digital information.” Gibson is trying to literalize and capture such tendencies through his own writing.

“suggest[s] that both tool and body are covalent participants – and coalesce as various *technosoma* – in the making of meaning and environment” (“Mobile Technosoma”; emphasis in the original). In Wilf’s case, the “tool” is the mobile phone that merges with the human body, forming a “technosoma,” to borrow Richardson’s term. Richardson refers to “the term *soma*, which when prefixed by such descriptors as techno, info, tele, endo and exo, among many others, can be used as a way of discerning medium and techno-specific effects on the lived body” (“Mobile Technosoma”; emphasis in the original). This being so, Richardson observes that “[e]ach –*soma* blending can work to describe a *way* of being rather than a *what* of being” as well as that “any soma is not an entity [...] but a process/network or ontological schematic” (“Mobile Technosoma”; emphasis in the original). In fact, Gibson’s body constructs in *The Peripheral* can be viewed as a way in which Richardson’s observations are literalized through literary writing, as the above examples from the novel illustrate. The technosoma created here form networks that manage to share and distribute information about an event that is happening at a particular (remote) location. Therefore, technosoma in *The Peripheral* actually *is* an entity due to the actual/literal merging of the human body with the smartphone featuring in it, something that contrasts Richardson’s claim. However, featuring as “a *way* of being” and a “process/network” on the basis of Richardson’s argumentation, one could claim that Wilf’s, Lorenzo’s, and Rainey’s technosoma produce together with the drone cameras “virtually localized views of the event” (*The Peripheral* 104), which leads to the formation of a technosoma drone network. Interestingly enough, this marks a shift in the way the human body can be perceived when it comes to the examination of mobile telepresence technologies as these are projected in the novel.

This being the case, Gibson creates a certain type of hybrid ontology through this process of human droning, which allows the individual to achieve “spatial dispersion” (197), as Andrejevic would argue, by experiencing location telepresently via the mobile interface. In

fact, other theorists have also argued about this status of the mobile phone interface. For instance, Alexander Galloway's argument echoes Richardson's statements as well when he claims that "an interface is not a thing, an interface is always an effect, [but] [i]t is always a process or a translation" (33). In a similar vein, Farman has also contended that "[t]he mobile device, on its own, cannot be considered an interface, [but] [t]he ways we use the device (i.e., the embodied practices of social space) as well as the ways the technologies of the device interact with other devices [...] transform it into an interface (*Mobile Interface Theory* 64).⁵⁴ In line with these theories, the interface in *The Peripheral* becomes transparent and is no longer a thing but a technosoma due to the body-phone hybridization process that takes place in the narrative. This is also underlined by the fact that the characters in the novel — Wilf, Rainey, and Lorenzo — connect with different drone cameras via satellite that helps them gain a holistic view and experience of the place where an event takes place: "[s]atellite shows [the drones] converging on the square" (*The Peripheral* 19). Hence, *The Peripheral* places emphasis on the ubiquitous use of the smartphone functioning here as a means that permits one to communicate with people at specific locations telepresently as if they are themselves at those locations.

This body-smartphone hybridization that is evident in *The Peripheral* also affects the way characters understand their position in space. As in *Spook Country*, the digital and the physical space in *The Peripheral* coincide because the technosoma gains access to multiple locations through camera drones that are part of the smartphone interface. For example, while "Lorenzo capture[s] the moby's approach to the city" with his eye-camera, Wilf, who is in his room, can see in his field of vision that Lorenzo's "hands, on the railing, and [Wilf] Netherton's on the upholstered arms of the room's most comfortable chair, seemed momentarily to merge, a sensation [that is] nameless" (*The Peripheral* 16). Wilf sees his own hands on the chair in the

⁵⁴ Similarly, in his article "The Materiality of Locative Media: On the Invisible Infrastructure of Mobile Networks," Farman also argues that "[t]he mobile phone, in and of itself is not an interface [...]. Only when the mobile phone serves as the nexus of relationships and interactions does it become an interface" (52).

physical space he is located in, while the digital/virtual space shown by Lorenzo's eye camera is simultaneously projected within or upon Wilf's physical space that creates the impression of spatial overlapping, emphasized in the above example with the word "merge," which illustrates that the virtuality of Lorenzo's hands is superimposed on the material image of Wilf's hands. This in turn generates feelings of unfamiliarity to the readers, as the phrase "nameless sensation" (*The Peripheral* 16) also implies. Gibson here resorts to essentially visual images and language in order to describe the spatial constructs that emerge from the characters' interaction with mobile technologies, a fact that reveals the "graphic intensity" of his writing, which, as Rapatzikou notices about Gibson's cyberpunk works as well, "enables his narratives to function on two levels; a superficial one, which is what readers immediately perceive through the use of sensory effects, and an underlying one, which aims to reveal what lies beneath the surface of the constituent elements of the world portrayed" (xv) and is going to be explained further down in the chapter.

The above-mentioned spatial hybridity and layeredness is further underlined in the following excerpts, taken from various pages of *The Peripheral*, that illustrate the way the afore-mentioned battle event between Daedra and the patchers is captured and experienced by Wilf and, hence, by the readers of the novel:

[Wilf] nodded, forgetting she couldn't see him, then spilled coffee on the white linen robe as feed from the two speeding cams irised into his field, to either side of Daedra. (17)

"And here we are," said Rainey, and he saw the first of the patchers, one cam shifting focus. (18)

Between the oculi of the twin feeds, Lorenzo was studying Daedra in profile as she faced the five folding steps to the top of the moby's railing. (23)

A third feed irised into place between the other two, this one from below. (24) Netherton swiped his tongue from right to left, across the roof of his mouth, blanking his phone. Saw the unmade bed. (24)

He double-tapped the roof of his mouth, causing the feeds, left and right, from their respective corners of the square, to show him the boss patcher and his cohort of eleven, looking up, unmoving. (24)

On the central feed, Daedra soared down, swinging out wide, up again. (25)

On the two feeds from the cams above the square, from their opposing angles, Daedra spent momentum, running [...]. (25)

The oculi of Lorenzo's feeds froze: on one the perfect, impossible, utterly black silhouette of a severed hand, almost filling the frame. (27)

As the excerpts highlight, Wilf gains access to a variety of live feeds transmitted to his field of vision through various sources, that is, by Lorenzo and other drone cameras that are in constant mobility — “feed from the two speeding cams irised into his field” and “[a] third feed irised into place between the other two.” This continual shift in camera perspective produces a certain kind of cinematic visuality that disorients the readers who also become viewers of the event through Wilf's perspective or eyes or drone camera. Indeed, Wilf, along with the readers/viewers, is forced to constantly follow the camera's perspective and movement. In other words, the readers need to always be aware of what is shown by each camera in addition to whose vision is shared. Narrative action is constructed in the novel through the multiple perspectives displayed by a variety of drone cameras. One camera complements the other in order to form a holistic view of the event, as different cameras depict action happening in different locations of the Garbage Patch, the artificial island in the Pacific Ocean where the conflict between Daedra and the neopromitives living there takes place. The physical and the digital spaces are being referred to interchangeably, with Wilf inevitably moving between the

two spaces, as the above excerpt demonstrates, particularly when he “spilled coffee on the white linen robe” in physical space, “as feed from the two speeding cams irised into his field,” or when he “[s]aw the unmade bed” in his room after “blanking his phone,” a view that was previously hidden behind the feed shown from the camera. Once again, the virtual is superimposed on the physical space, as is the case in *Spook Country*, while Gibson’s narrative constantly changes focus and perspective in an effort to show the changes in Wilf’s perspective and his constant shift between physical and virtual space. Having said all this, the book itself turns into a material construct, in that it grants the readers access to the multiple locations in which narrative action takes place.

In this sense, Gibson’s narrative appears to remediate in printed form not only the cinema screen, since it is as if readers are watching action through the various cameras in a film, but also the hybridity and multiplicity of computer and mobile screens. This effect is highlighted by the following phrases taken from the above excerpt: “feed from the two speeding cams irised into his field,” “one cam shifting focus,” “[b]etween the oculi of the twin feeds,” “feeds, left and right, from their respective corners of the square,” “[o]n the central feed, Daedra soared down,” “[o]n the two feeds from the cams above the square, from their opposing angles,” “[t]he oculi of Lorenzo’s feeds froze” (*The Peripheral* 17-27). Indeed, Wilf’s embodied interface is emphatically fragmented and multiplied by the disparate screens projected by the drone cameras in his field of vision, being positioned horizontally within the space of the interface. This is what Bolter and Grusin describe as hypermediacy, according to which “representation is conceived of not as a window on to the world, but rather as ‘windowed’ itself—with windows that open on to other representations or other media” (34). However, what is different in the novel is that, while the interface can actually be viewed as a “window on to the world” (34), since characters gain access to different locations all over the world through the use of interconnected drone cameras and other technosoma, at the same time

this droning effect renders the interface a multimediated or hypermediated space in which virtual and physical spaces also conflate. Additionally, this multiplication and fragmentation of interfaces reduces the readers/viewers' immersion in the action taking place here. For instance, although Wilf can see Daedra through Lorenzo's body camera, "[t]hen he remembered that she couldn't see him. That she was looking at someone called Lorenzo, on the upper deck of a moby, halfway around the world" (*The Peripheral* 11). In other words, Wilf is suddenly reminded of the interface of their conversation, which is Lorenzo's eyes, since it is through the latter that he sees action happening in his own field of vision. This is also evident when, during the battle event, Wilf is reminded that Rainey is not actually "staring at him [Wilf]," but "rather at whoever Lorenzo was [staring]" (12) — Rainey stares at Lorenzo, but talks to Wilf through him. As a result, human identity can no longer be regarded as determined and autonomous because human vision and personal experience are no longer individualized but shared. Ultimately, the emphasis of the narrative on the ubiquity and multiplicity of interfaces, planes of reality, and levels of mediation displays the author's "ability for the construction of close-ups and various angles of view," which in turn "reveal[s] his interest in how the events described in his narratives are *seen* rather than just read" (Rapatzikou 17-18; emphasis in the original). The novel then, in a fashion reminiscent of Gibson's earlier ones, depicts physical space from various perspectives, presenting it "either as a perceptible or as a constructed by information technologies entity" (Rapatzikou 18). With *The Peripheral* Gibson revisits spatial technologies by placing them in the context of mobile media, thus constructing a feedback loop by approaching new media technologies from different perspectives each time.

Nevertheless, droning the human body partly compensates for the above-mentioned loss of immersion, since the smartphone serves as an extension of the character senses. Richardson attests that "[c]ontemporary Western culture" and "new media screen technologies

of today,” in particular, are essentially “ocularcentric,” as they “prioritize visual and screen representations” (“Pocket” 207, 208). Indeed, the smartphone camera is constantly present nowadays, “educ[ing] a particular kind of ubiquitous visual access” (Richardson 211), something that is reflected in the *The Peripheral* excerpts already presented, since all narrative action is delivered to the readers through the multiple cameras, as argued earlier, which creates an essentially visual effect as well as the impression that the users can have visual access to all places through their smartphone. This confirms Rapatzikou’s view that “[i]n Gibson’s fiction the practices of virtual technology become for the readers an observable spectacle” (xix), although in the context of *The Peripheral* virtual technology is replaced by the hybridity of smartphone technology. However, the novel seems to only partly conform to ocularcentrism, since the narrative periodically reminds us that mobile phone telepresence is an embodied practice in which all senses are involved. Indeed, Richardson differentiates between ocularcentrism and “mobile media screens[,] [which] set up an entirely different relationship to embodied perception, and require a corporeal schema quite at odds with our usual habits pertaining to screens” (“Pocket” 208). The technosoma interface in *The Peripheral* creates a synesthetic effect that is verbally expressed in the narrative. For example, the transmission of the battle between Daedra and the boss patcher involves an acoustic/aural component as well, which is underlined when “[e]ither Lorenzo or Rainey brought the audio up” and “[t]he square filled with a low moaning, the island’s hallmark soundscape. Wind blew across their open tops, generating a shifting, composite tonality he’d hated it from the moment he’d first heard it” (*The Peripheral* 18). When Wilf indirectly expresses his annoyance with the amplifying sound effects — saying “Do we need that?” — Rainey insinuates that immersion in the virtual space of the interface is the aim of such droning technologies, replying that “It’s so much of the feel of the place. I want our audience to have that” (18). According to Rainey, the acoustic effects will create a more immersive effect to the audience that is going to watch this event. Virtual

telepresent space then is presented as more realistic, since it is experienced not only visually but also synesthetically (visually, kinesthetically and aurally). For instance, when virtual space intrudes in Wilf's vision, "[h]e almost vomit[s], [...] at the sudden input: bright saline light above the Garbage Patch, the sense of forward motion" (7), while "[f]eed from the island always made him itch" (17). This echoes Richardson's suggestion about the mobile phone screen, which, according to her, "is not just, or even primarily, a screen" because "it enacts both separately and combined visual, haptic and acoustic incursions into our corporeal schema, and demands variable and oscillating modes of somatic involvement" ("Pocket" 209). In the case of *The Peripheral*, the characters seem to be moving in-between the hypermediated anti-immersive effect of the interface explored earlier and the synesthetic immersive effect it creates.

The theme of immersion in *The Peripheral* can also be analyzed in juxtaposition with *Spook Country*. To be more specific, Bobby Chombo in *Spook Country* states that "you can't just do the locative with your nervous system. One day, you will. We'll have internalized the interface. It'll have evolved to the point where we forget about it. Then you'll just walk down the street..." (68). Although for the characters in *Spook Country*, immersion in locative space seems to be still an unrealistic scenario, in the narrative of *The Peripheral* this becomes actualized. In this excerpt from *Spook Country*, the author familiarizes readers with a possible evolutionary stage in the development of locative technologies, which for the characters of Wilf's narrative in *The Peripheral* becomes a reality in the context of ubiquitous mobile technologies. Indeed, the above excerpt can effectively describe the characters' interaction with space in *The Peripheral*, as it seems that ubiquitous computing has reached the point, as shown in Wilf's narrative, where the interface due to its internalization in the human body has become transparent and invisible, an effect that is clearly articulated in *Spook Country*: "We'll have internalized the interface. It'll have evolved to the point where we forget about it" (68).

As regards the ways in which location awareness is achieved through the technosoma, Wilf's narrative becomes even more profound. Firstly, any activity that involves the use of the mobile phone automatically reveals the user's location. In the following excerpt from *The Peripheral*, the readers are informed that Wilf should not open the message he received from Daedra in order to avoid disclosing another character's, Lev's, whereabouts:

Daedra had now invited him to her party on Tuesday evening, though Lowbeer hadn't yet permitted him to open the message. That, along with his RSVP, must be done from a location that didn't involve Lev. One, he understood, that wouldn't introduce the architecture of the Zubov family's security to whatever architectures Daedra herself might be involved with [...]. (323)

Essentially, when Wilf receives a message from Daedra via email on his mobile phone, his location is directly disclosed to her when he accesses it. Worse, in another instance, Lowbeer suggests that she and Wilf should leave immediately the place they are currently located at because, "[a]s [he] reached [Daedra's] voice mail, various individuals, across the entire Thames Valley, began to move in this direction" (244). Lowbeer implies that with the opening of the voice mail, Daedra's security has been breached since through Wilf's embodied mobile phone or rather his technosoma his location has been revealed to those who wish to arrest him. What both instances illustrate is that location awareness constitutes an inherent feature of locative media technologies that adds to their ubiquity.

However, Gibson provides an important twist in the novel, complicating the issues of privacy and surveillance it touches upon because, since the smartphone functions are embodied, location awareness becomes also embodied, as it becomes part of the technosoma of the user. In this sense, Wilf's interface is reminiscent of Google Glass technology,⁵⁵ which,

⁵⁵ Hidenori Tomita writes that: "In recent years, several new devices that replace smartphones have been announced and debated in public discourse. One example is smart glasses, which consist of a head-mounted display that creates a virtual reality (VR), along with a data glove worn on the hand to operate them. The head-mounted display allows users to see what is in front of them via an optical see-through method, and has gained

according to James Meese, “outlines a radical future of location, where location is tied to one’s corporeal and phenomenological existence” (144).⁵⁶ Although Google Glass serves as a piece of wearable computing for the users, in *The Peripheral* the readers are confronted with a far more advanced form of technology with the mobile phone being internalized in the human body, which becomes a technosoma interface, as argued earlier. Despite this, Meese’s observation about embodied location is applicable to *The Peripheral*, firstly because the technosoma interface is capable of droning space, that is recording and transmitting action happening at specific, even though remote, locations, as I have argued so far. Secondly, the technosoma interface is an indication of the fact that locative technologies have advanced to such a degree that anyone and anything can be located anywhere, but, most importantly, that location awareness cannot be regarded as separate from the technosoma of the users that constantly transmits location information about humans in a drone-like manner.

In *The Language of New Media*, Lev Manovich also envisions a “futuristic scenario [that] may never become a reality” because “we clearly live in the society of a screen” (114). This scenario is very similar to the one Gibson visualizes here. Indeed, theorizing on virtual reality technologies, Manovich argues that:

attention as a device that facilitates AR. After Google Glass (Google) was announced in 2013, similar products were released, such as Telepathy One (Telepathy One), Intelligent Glasses (NTT Docomo), Moverio (EPSON), Atheer One (Atheer Labs), and Hololens (Microsoft). There are both single-eye and double-eye types; eyeglass-type wearable devices have also gained attention. These kinds of smart glasses allow users to view online information in front of them, such that anyone can easily experience AR” (“What is Second Offline?”²). Smart glasses are also portrayed in the ubicomp scenarios Rainie and Wellman present in their book. In one of these futuristic scenarios, “personalized augmented overlay appears in” the character’s “field of vision: the time and date, the weather and air quality, a few applications he left open from the previous night minimized into his peripheral vision” and other types of information (Rainie and Wellman 291). This alludes to the kind of smartphone technology that is used in *The Peripheral*, where information is presented in Wilf’s field of vision as well, as I have described.

⁵⁶ In his article “Google Glass and Australian Privacy Law: Regulating the Future of Locative Media,” James Meese writes that “[h]ardware such as Glass outlines a radical future of location, where location is tied to one’s corporeal and phenomenological existence. It has also already instigated changes in how we conceive of privacy at particular locations, with the possibility of live-streaming or taking photos through glasses presenting a challenge to existing social norms” (144). This is evident in *The Peripheral* as well, where characters present live videos of their daily experiences at specific locations, as shown earlier.

Eventually VR apparatus may be reduced to a chip implanted in a retina and connected by wireless transmission to the Net. From that moment on, we will carry our prisons with us — not in order to blissfully confuse representations and perceptions (as in cinema), but to always ‘be in touch,’ always connected, always ‘plugged-in.’ The retina and the screen will merge. (113)

Although Manovich refers to virtual technologies in a broader sense, it seems that his postulations allude first to the embodied status of the smartphone analyzed earlier in this chapter, and the technosoma, that is the merging of the human body and the mobile phone — “[T]he retina and the screen will merge” — which is evident in *The Peripheral*. Secondly, Manovich calls attention to the connective nature of computer technologies which echoes the connective nature of mobile media technologies evident in *The Peripheral*. In contrast to LBSNs, which, as I argued earlier, emphasize “human connectedness,” this is a system of pervasive technologies which is characterized by “automated connectivity” (José van Dijck 12). Finally, Manovich’s use of the word “prisons,” when he refers to virtual technologies, alludes to their oppressive potential as surveillance technologies.

However, location tracking and data collection are attained in the novel through even more advanced ubiquitous systems of surveillance that involve the interconnection of an agglomeration of media platforms and devices. These are known as the “aunties,” which are more sophisticated systems of transparent connection between mobile devices than the ones presented in Wilf’s case of technosomatic droning. As is revealed in the narrative, the aunties are “global intelligence feeds, analytical tools of tremendous functionality” through which Lowbeer “can access anything, any platform, always” (*The Peripheral* 377). Indeed, Griff, another character who appears rather late in novel, and, as the narrative insinuates, is Lowbeer in Wilf’s timeline, explains about Lowbeer that “if you mention anything that concerns her, over or within reach of any platform whatsoever, she learns of it immediately” (377). This is

also verified by Griff's reply — "Not unless we're in range of a device of some kind" (423) — when Flynn asks him whether Lowbeer can overhear their discussion. The novel here signals the transition from a "networked communication," which is evident in the use of Badger, to a more advanced "culture of connectivity," via the combination and "interconnection of [multiple] platforms" and applications that José van Dijck calls an "ecosystem of connective media" (4, 5). Importantly, the aunties mentioned in *The Peripheral* sustain a similar yet even more advanced ecosystem in which multiple devices and platforms communicate with one another by constantly exchanging information. Gibson confronts us with a futuristic reality featuring advanced technological constructs in an attempt to "express science-fictional impulses" (McFarlane 121), as previously explained, thus revealing different aspects of contemporary technologies as well as the potential future paths these may take.

Having said all this, the author envisions an elaborate and automated droning system of data mining that gradually evolves through time due to the continuous access of the technosoma to multiple feeds throughout the years — "[s]omeone my age is all feeds" Lowbeer herself reveals (*The Peripheral* 102). To be more specific, it seems that Lowbeer's technosoma has evolved to such an extent that it automatically connects with other devices and platforms in an effort to receive all types of information about individuals that does not only have to do with locational data. For example, Lowbeer herself admits that thanks to the feed connections she receives, she has "continual access to most things, resulting in a terrible habit of behaving as if [she] already know[s] everyone [she] meet[s]. [...] Which, [...] in a sense, of course [she] do[es]" (102). Thus, Lowbeer manages to intrude into the personal space of any individual via smartphone droning processes. In this manner, she is actually informed about anyone from anywhere. Surprisingly enough, by having Flynn's friend, "Macon[,] add a feature to [Flynn's] new phone[,] [n]ot only do[es] [Lowbeer] know that [Flynn's] asleep, just, now, but that she's dreaming" (327). In this light, through Lowbeer "and her omnipotent aunties"

(361), Gibson marks the transition from what van Dijck calls “human connectedness,” which emphasizes the social value of “human networks,” to a condition of “automated connectivity” (11, 12), which characterizes this kind of process that involves the interconnection of devices with the aim to disclose, even involuntarily, personal information. All the above examples illustrate that smartphone droning has evolved to such a degree that one can be telepresent anywhere, anytime by accessing any device. Interestingly, this serves as a metaphor for contemporary online networked society in which personal (locational) information and the various individual activities always become available to the public through social media. This kind of locative surveillance also undermines and contradicts Farman’s ideal of “participatory surveillance,” since the individual here is only “being viewed” without being able to view others (*Mobile Interface Theory* 69, 68). Consequently, Gibson’s narrative seems to be helping readers to elaborate on and explore certain notions and applications in an effort to achieve an insight into as well as be more critical of the rapid and invisible but often suspicious technological changes that are taking place nowadays.

Furthermore, according to Andrejevic, the figure of the drone and, by extension, the smartphone as a drone figure, constitutes “an indefinitely expandable probe that foregrounds the seemingly inevitable logic of algorithmic decision making” (196). In *The Peripheral*, the aunties utilize and manipulate the information transmitted from various devices that connect to each other, thus functioning as decision-making mechanisms. For example, they inform Lowbeer that after Wilf accessing Daedra’s email, a peripheral “would be on its way” to the place where he is probably to kill them (*The Peripheral* 145). Lowbeer states that the individuals that “began to move in the[ir] direction” are not “connected to [Daedra], or to [him], in any known way, but [are] evident to the aunties as violating statistical norms” (244). Thus, the aunties have the ability to algorithmically translate movement which enables their participation in any kind of action. What is of interest here is that the smartphone functions as

an information processing sensor-device or probe-investigator that turns locational data into metadata about locations or individuals in specific locations independently of whether this information is valid or not. Consequently, Gibson constructs a world where human beings constantly leave “digital footprints” via their smartphones that can be collected and processed (Grassegger and Krogerus), which highlights their vulnerable position. Ultimately, as Andrejevic notices, in this world there are “those who operate and control the network infrastructure enabling the convenience and ubiquity of locative media and those who carry the sensors with them, generating data as they go” (205). In the narrative the former is represented by Lowbeer, while the latter by the rest of the characters who are being surveilled by Lowbeer and her aunties, as already shown.

Taking all the above into account, one could argue that Gibson’s novel serves as a medium through which we are reminded that current uses of smartphone technologies that may initially seem familiar may actually lead to other uses of these technologies that are estranging and even threatening. The ambiguous role of locative technologies is also disclosed here by the fact that the extent to which these technologies can be considered dangerous depends on their users, since Lowbeer here uses the aunties to help the protagonists avoid being murdered, while other forces in the novel use such advanced surveillance systems to detect and harm other individuals, as shown. In any case, however, the potential evolution of the smartphone into devices of ultimate surveillance may create suspicions and insecurities regarding the issue of privacy of the individual. The novel avoids offering a straightforward message to his readers by merely confronting them with a situation and inviting them to be critical about the use of smartphone technologies. As McFarlane correctly suggests, “Gibson’s science fiction realism not only comments on its contemporary period but establishes what that contemporary period needs from a future” (121). Complementing McFarlane’s observation, one can claim that what we actually need from a future, which Gibson does here, is to remind the readers of the ominous

and menacing side of technologies. Like *Spook Country*, *The Peripheral* here also exposes the double function of locative technologies, whose ubiquity may turn them from networked communication media to technologies of ultimate surveillance, a fact that is going to be emphasized further down in this section as well.

All these smartphone interfaces also establish multiple algorithmic connections with one another, which are incomprehensible and invisible to the average human perception. This is reflected in the novel when Lowbeer “doubt[s] anyone today know[ing] quite how [the aunties] work, in any given instance” and “anyone fully comprehend[ing] them, herself included, as they’ve become self-organizing” (*The Peripheral* 145, 377). This also relates to the invisibility and unrepresentability of algorithmic interfaces that, according to Galloway, “prove that something is happening behind and beyond the visible” (86).⁵⁷ In a similar vein, in his seminal article “The Materiality of Locative Media: On the Invisible Infrastructure of Mobile Networks,” Farman writes that “there is much beneath the surface of human perception that [...] takes place at the level of the ‘cognitive unconscious’” (54). On referring to the invisible connections among the material infrastructure of locative media technologies, Farman argues that the majority of people almost always neglect “the larger networks of objects that make [the connections between them] possible” (54). Both Galloway’s and Farman’s observations are evident in *The Peripheral* especially in the case of the aunties. It seems that Gibson calls attention in his narrative to three features of networked (locative) media — invisibility, unrepresentability, and incomprehensibility — in order to reveal their underlying workings and mechanisms. This being the case, the value and importance of Gibson’s literary narrative lie in its ability to help us visualize even technologically viable worlds, but through the language that it uses it actually equips us with the vocabulary we need in order to grasp and

⁵⁷ Alexander Galloway states that “[a]lgorithmic interfaces – even as they flaunt their own highly precise, virtuosic levels of detail – prove that something is happening behind and beyond the visible. In other words, *there are some things that are unrepresentable*” (86, emphasis in the original).

describe our contemporary technological reality. Rapatzikou's observations regarding Gibson's previous fictional works are evident in *The Peripheral* as well, in which "the non-representational technological practices of today [are] made visually accessible with aid of the writing process itself" (8). However, it is the technology that changes here, with readers familiarizing themselves with abstract technological processes that pertain to location-aware technologies and are articulated in literary terms. Invisibility is also one of the basic tenets of ubiquitous or pervasive computing. Andrea Zeffiro argues that "in third generation computing,⁵⁸ technologies of surveillance are invisible and pervasive – nowhere and yet everywhere – reconfiguring the dynamic between seer and seen; one is 'watched' all the time, yet by no one and from nowhere is [*sic*] particular" (9). Similarly, Mark Weiser, who is considered the designer of ubicomp, has also stated that "[t]he most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it" (94). Weiser has also predicted that "machines [...] will be interconnected in a ubiquitous network" (98). These arguments relate to the kind of networked connectivity presented in *The Peripheral* as both invisible and ubiquitous.

In fact, Gibson in *The Peripheral* introduces a much more advanced version of the kind of pervasive technological surveillance he promotes in *Spook Country*, since "the information collection process becomes both omnipresent and invisible" (Andrejevic 200). This extended form of droning marks the transition to ubiquitous computing systems of mass surveillance and interconnectivity. According to Farman, "ubiquitous or pervasive computing often seeks to create an environment in which the technologies remain invisible" (*Mobile Interface Theory*

⁵⁸ Paul Dourish and Genevieve Bell refer to the three stages of computing as delineated by Mark Weiser. They write: "the first era of computing had been that of mainframes—large, centralized computers used by hundreds or thousands of people. The second era, personal computing, was characterized by 'a computer on everyday desktop,' a world in which computational resources were deployed on a personal level. In the third era, ubiquitous computing, [...] computational devices would be small and powerful enough to be worn, carried, or embedded in the world around us—in doors and tables, the fabric of clothes and buildings, and the objects of everyday life" (2).

7). He claims that in ubicomp “a good design [of mobile devices] is one that is not noticeable,” one that “recede[s] into the background of your everyday life” (“Materiality” 55). In ubicomp systems it is not only that smartphones are invisibly and transparently connected with other smartphones and devices, but also computing processes appear to be embedded in the environment and the surrounding objects. As Bolter and Grusin notice, “[u]biquitous computing [...] turns our whole world into a computer interface,” while “[d]evices that are now ‘dumb’ [...] become ‘smart,’ communicating with us and with one another and anticipating our needs” (213, 216). In the novel, for example, while investigating Aelita’s murder that Flynne witnessed in the beginning of the novel, Wilf’s friend, Lev, says that “[they]’d hoped to find out what her building says happened” (*The Peripheral* 91), implying that Aelita’s building itself is capable of transmitting information. Lowbeer’s car also appears to be “smart” enough to announce its own location: as Lowbeer reveals, “Daedra’s security [...] will certainly know that it emerged from this address” (445). Location awareness has been incorporated in all devices and platforms, but also in objects in the environment to the extent that all these have given shape to ubicomp surveillance systems that are constantly aware of the location of every individual and object.

In such a ubiquitous network of machines, the role of locative media needs to be examined and articulated anew. In *Smartphones as Locative Media* (2015), Frith argues that “[r]ather than opening up location-based services and waiting for location information, the smartphone may just be located at all times as it moves through networks of sensors built into objects in the everyday world” (143). Frith also predicts that “location awareness will be incorporated into most networked interactions, operating invisibly in the background” (143).⁵⁹ Frith’s ideas reflect the ubiquity of locative devices/media in *The Peripheral*. It can be claimed

⁵⁹ Similarly, Evans and Saker extrapolate the ubiquity of location awareness. They argue that “[i]nstead of dying out, these technologies will become ubiquitous but withdrawn and in the background. Location will no longer be special or the unique selling point of a service; it will be normal and an everyday, integrated aspect of social media use” (95).

that in Gibson's narrative location awareness is gradually taken for granted with emphasis placed not only on the whereabouts of the individuals, who can be located at any time, but also on the fact that their activities/actions are constantly watched through smartphone droning procedures with location information being transformed into other types of metadata. It turns out then that Gibson builds a world of ubicomp in his narrative where smartphones and other technological devices as well as objects, such as buildings and cars, appear to be part of a larger infrastructure or a broader network of things. This pertains to Farman's interface model that "include[s] object-to-object interfaces, thus extending beyond the idea of the human-computer interface" by embracing the concept that "two objects can interface with one another to exchange data" (*Mobile Interface Theory* 63).

The interconnection and network of objects that is presented in *The Peripheral* also alludes to what Bruce Sterling, in discussing locative media and ubiquitous computing, has called "The Internet of Things," which is another term to talk about ubicomp.⁶⁰ Sterling refers specifically to "a mobile system of interlinked objects that are traceable across the planet's surface" through the Global Positioning System, forming their own network (*Shaping Things* 92), in a similar manner that objects in the novel do.⁶¹ Given the particular emphasis that is placed on interconnected things/objects in the novel, it is important to point out that a significant number of theorists have explored "*the object turn*," to use Marc Tuters's words in describing the condition of objects gaining their own agency and voice within their own networks (271; emphasis in the original). In investigating the concept of the Internet of Things, Marc Tuters and Kazys Varnelis write that "[i]t is the task of whatever remains of art after the

⁶⁰ Rainie and Wellman report that: "*Ubiquitous computing*, sometimes called 'the internet of things' (or 'everyware'), describes human-computer interaction that goes beyond personal computing to an environment of objects processing information and networking with each other and humans" (279; emphasis in the original).

⁶¹ The Internet of Things is "[a] design concept in which every object is connected to the Internet through ubiquitous computing. Objects could become an integral element of the Internet through linking to it in a variety of ways, including RFID tags, dynamic barcodes, or microprocessors. Once these 'smart objects' are seamlessly integrated into the Internet, they become active elements in the social contexts in which they operate" (Ross et al. 276).

locative turn to get involved in the messy business of this new world of objects,” noticing that “we are entering into a society of ubiquitous networked objects” (363, 362). Tuters and Varnelis view the object turn as the evolution of locative media technologies. Following a similar train of thought, in his *Alien Phenomenology: How It's Like to Be a Thing* (2012), Ian Bogost enters a philosophical discussion about objects, placing them at the center of attention, which is also reminiscent of Gibson's *The Peripheral*, as will be shown further down. Bogost argues that “all [objects] seem to do things to one another[,] [...] constantly machinat[ing] within themselves and mesh[ing] with one another, acting and reacting to properties and states while still keeping something secret” (66, 27). In fact, networked devices are presented in the novel as if they are self-conscious, “relentlessly communicating various kinds of data to each other” (Tuters and Varnelis 362). For instance, as I showed earlier in the analysis of the novel, machines actually appear to function on their own, “[they have] become self-organizing” (*The Peripheral* 377), making decisions, according to Lowbeer, with the help of the aunties. Gibson here exhibits the underlying connection between objects and their inner machinations. Thus, the object turn becomes evident in *The Peripheral* since emphasis is placed on the relationship and interconnection between machines/objects. In anticipating also a post-apocalyptic world where location-aware and ubicomp technologies are given human characteristics, such as self-consciousness, Gibson “endows his fiction with a feeling of strangeness and familiarity, exhilaration and ambivalence” (Rapatzikou xix). While the exploration of post-apocalyptic science fictional elements per se is not the purpose of the present analysis, what is of interest here is that the novel, on the one hand, presents uses of smartphone technologies that are familiar to the readers, while, on the other hand, the presentation of ubicomp technologies as human-like to the extent that they are in the position to engage into a process of decision-making, as is the case with the aunties, creates a feeling of estrangement and defamiliarization. Gibson again describes a condition of ambivalence here, as argued earlier.

At the same time, Gibson turns the readers' attention from smartphones to the ways in which humans themselves become objects of the objects' gaze in the narrative, something that contrasts the idea of the smartphone interface as a process rather than an object, as already explained. In the droning processes that have been described in the current chapter so far, attention has been paid to the fact that human presence has been mediated, or better, that there is human agency underlying these droning processes. This has been characterized as a form of surveillance, since human beings are presented as watching other human beings through droning technologies of telepresence that serve as mediators or drones, gathering also information about humans. Especially in the case of drones, it is not merely that humans are watched "all the time, yet by no one and from nowhere in particular," to use Zeffiro's words (9), but they are constantly observed by machines or objects in a literal sense. This is demonstrated in the novel when "a pair of small drones, [...] spelling each other, watc[h] [Flynn and Leon] all the way from Conner's" (*The Peripheral* 157). Here, drones not only watch humans, but also, they appear to be sentient, as if talking to — "spelling" — each other. Gibson brings forth a world of machine empowerment that is emphasized by the fact that humans are constantly under the surveillance of objects, expressing once again his concerns about the repercussions of technology.

This kind of object gazing is also evident in other scenes in the novel where the characters' private residences are watched by drones. In fact, Flynn uses an app on her old phone that shows "a low satellite image of their property, in a complicated dance, the twenty drones, each one shown as a point of light, weaving something she knew to call, if only from tattoos, a Celtic knot. Each one to be replaced by one of the twenty spares, then recharged, in rotation. [...] Watching the drones weave their knot above her house seemed to help" (*The Peripheral* 89). The drones here evidently interact and collaborate with one another as signified here with the reference to a Celtic knot that suggests their positioning as a patterned network

of machines. In a similar vein, in the beginning of the novel, while watching Aelita's apartment with her drone, Flynne notices that it is watched by other drones recording her every movement: Flynne "tried counting them, but they were fast, moved constantly. Maybe six, maybe ten. They were interested in the building. Like AI emulating bugs [...]. They didn't seem to do anything, other than dart and hover, heads toward the building. [...] It felt like they were waiting for something, evidently on the fifty-sixth floor" (13). Finally, drones serve as probes, collecting and exchanging information, as is the case of the murder of the four boys when "[t]he big [drones] are mapping data off the little ones, [...] [s]niffing for tire molecules" (113). In all the above examples, even though drones are actually controlled by humans, emphasis is placed only on the drone objects themselves and their interactions with one another when it comes to surveillance missions. This creates an ambivalent tone in the novel with drone objects serving as security mechanisms protecting humans and their property, while creating a rather menacing atmosphere. The kind of information these objects collect and exchange is not revealed in the narrative, which emphasizes the negative aspect of ubicomp and location-aware technologies. The narrative also explicitly mentions that the drone performing an operation on Burton's leg is "controlled by a team at Walter Reed National Military Medical Center, [...] [doing] whatever they were making it do" (369). In this case, in which the drone clearly appears to be working via telepresence, Gibson highlights the drone's ability, even though an object, to function independently as if it is a sentient living being, something that is emphasized in the following phrases from the novel: "the drone clicked and whirred, all those little pill-bug legs doing whatever they were doing" and "the drone came to life, making its noises" (370). Interestingly, drone objects are emphatically described as living entities in the beginning of the novel as well, when Flynne is asked to beta-test Burton's game. Flynne roams around the building with her own drone, while supposedly playing a mobile game and "watching the gray thing breathe" (54); this phrase is repeated once again almost immediately in the next instance

— “It was breathing” (54). The word “breathing,” which describes a physical human action, in conjunction with the use of expressions such as “Saw the thing bulge, then flatten” and “It swelled again” (55, 56) to talk about inanimate objects, works as a metaphor illustrating the ability objects have to act like sentient beings in the novel.

On the basis of all the above, it can be argued that objects themselves can acquire a certain degree of agency that results from the high levels of mediation between droning technologies and their users. Even though Gibson does refer to the human agent behind the droning processes, as the previous examples indicate, object agency is primarily stressed in all cases. Considering Andrejevic’s observation that “[t]he experience of the drone is the experience of things” (203), one could contend that Gibson in *The Peripheral* attempts to capture this very experience through language, calling attention to the ways in which objects function. Clearly, the evolution of locative technologies is not presented only as a positive one, as it also casts doubts regarding the deprivation of human agency and individuality. Importantly, however, in no way does Gibson insinuate that objects gain control over humans. Rather, by stressing the relations between objects as well as the ways in which humans are watched by objects, Gibson moves away from anthropocentrism, which reminds us of Andrejevic’s argument when he says that in this way “humans can be understood more broadly as one more collection of things in the great object world” (202). Viewing also this within a post-apocalyptic framework, one could claim that the depiction of a dark, oligarchic, ghost-city where action is mediated primarily through object-interfaces produces a rather dystopian vision of a future that accentuates the threatening mood of the novel.

At the same time, however, Bogost very explicitly states that in placing objects “at the center of being,” object-oriented theories connote “that nothing has special status, but that everything exists equally,” which for him though means that “we need not [necessarily] discount human beings to adopt an object-oriented position” (6, 8). Indeed, “[t]he object-

oriented position holds that we do not have to wait for the rapturous disappearance of humanity to attend to” the objects’ (material) existence (Bogost 8). In addition to the aunts, the readers in Gibson’s *The Peripheral* come across the assemblers, which are nanobots, in other words objects, that have been programmed to work independently without attracting human attention. In this manner, the author seems to echo Bogost’s views as regards “the assumption that the rights any thing should have are the same ones we believe we should have; that living things more like us are more important than those less like us; and that life itself is an existence of greater worth than inanimacy” (73). What both Bogost and Gibson urge us to adopt is a more holistic view of the world in which no being dominates on any other, but every single being, either living or non-living, should be treated as an entity that awaits and deserves to be explored as well as be granted equal significance and agency with other beings. Gibson once again creates an ambiguous effect by offering both a human- and object-centered perspective in the novel, which helps him to gradually move from location-aware technologies and applications to ubiquitous mobile technologies. In other words, in *The Peripheral* object-oriented theories can be viewed as a continuation of locative media and ubicomp. In this sense, Gibson presents the evolutionary stages of new media technologies, with locative media being an important transitional technology that leads to more advanced forms of techno-science, such as ubicomp. I would also claim that, as in *Spook Country*, the author is interested in capturing and recording the effects of newly-emergent technologies, and in this case in particular, the effects of ubiquitous droning technologies as an inevitable advancement of locative media. As regards the characters’ droning practices, while spatial dispersion is metaphorically attained through locative apps and data mining techniques, they can be realized due to the incorporation of the smartphone in the human body allowing it to be co-present in multiple locations.

Interestingly, the novel also calls attention to extreme droning telepresence practices of spatial dispersion, thus redefining the relationship between virtual and physical space.

Important theoretical discussions took place in the 2010s with regard to how the virtual and the physical space are perceived compared to theories of the 1980s and 1990s. The concept of virtual reality as a parallel space is reconfigured by contemporary theorists, such as Jason Farman, Hidenori Tomita, Adriana de Souza e Silva and Daniel M. Sutko, all of whom, in studying contemporary mobile and/or locative media technologies, perceive virtuality alongside the materiality of mobile technologies. According to these theorists, since new mobile media (communication) technologies permit different and more complex spatial configurations than early computer technologies, virtual space should be considered as potentially being part and not separate from external reality. The value of the following analysis lies in its attempt to view these recent theories in relation to *The Peripheral* and the way it tackles all these shifts in mobile media technological developments and spatial convergences. By inventing the term “virtually physical,” Gibson merges in *The Peripheral* the virtual with the physical, also taking the exploration of the interconnection of these two spaces a step further in an effort to examine whether it is possible to totally efface the differences between them.

While the shift regarding the relationship between the physical and the virtual is even more pronounced in the 2010s, such theories actually date back in the late 1990s and 2000s. In *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* (1999), N. Katherine Hayles notices the blurring of the boundaries between digital and physical space by questioning the opposition between “materiality” and “information,” emphasizing instead the inseparability of digital information from material interfaces (12, 13). A few years later, de Souza e Silva, in her article “From Cyber to Hybrid: Mobile Technologies as Interfaces of Hybrid Spaces,” further stresses this blurring as a result of the emergence of locative media technologies and hybrid spaces that are both digital and physical. Indeed, the author draws attention to the shift “from cyber spaces to hybrid spaces,” concluding her article with the realization that “the digital has never actually been separated from the physical, and can be an

essential element for promoting sociability and communication in urban spaces” (de Souza e Silva 274).

In *The Peripheral* Gibson highlights a renewed interest in these approaches regarding the relationship between the virtual and the physical, as explored through peripheral telepresence technologies. In Flynne’s case, the readers are initially encountered with the disconnection of her organic body from its location when she enters “an induced version of sleep paralysis” (*The Peripheral* 173). The disconnection is described as a gradual counting down:

“Fifteen. Fourteen. Thirteen. Twelve. Eleven. Ten.”

Pop.

That color like Burton’s haptics scar, but she could taste it inside her teeth. [...] “Two. One. Zero.” She opened her eyes. A flat ceiling sprang away, polished, six feet higher than the one in the trailer, as the room reversed, was backward, was other, weight of the crown gone, her stomach upside down. A woman’s eyes, close, weirdly blurred.
(175)

Interestingly, while Flynne is being transferred from the trailer room to another room in the future via telepresence, emphasis is placed on the visual and kinetic aspect of her experience, even though her body actually remains static, through the use of words and phrases, such as “color,” “[a] flat ceiling sprang away,” “the room reversed,” and “weirdly blurred.” However, Flynne’s disembodiment is also presented synaesthetically⁶² and corporeally, as is the case with Wilf analyzed earlier. Actually, the narrative combines mobile with sonic perceptual elements, since the word “[p]op” in the above excerpt seems to be a verbal sound corresponding to what

⁶² While McFarlane also describes Flynne’s “first [...] connection to the peripheral” as “a synesthetic experience,” emphasizing “[t]he combination of colour (sight) and taste” (125), I draw attention to Flynne’s full corporeal experience of telepresent space, referring to its kinetic and sonic aspects as well.

Macon has described to Flynnne as “a wobble” (174) that accompanies her transference to the telepresent space.

Yet, although Flynnne is disembodied, she does not inhabit the bodiless informational realm of a cybernetic environment, as characters do in Gibson’s cyberpunk works. Rather, her virtual self is immediately re-embodied in a material “[t]elepresent interface” (*The Peripheral* 166), allowing her to inhabit a “[k]ind of robot body” (191), which is called “peripheral.” With Flynnne being able to be present in two places at the same time, an idea that originates from the fact that “cell phones [have always] allowed people to inhabit two places at the same time: their own physical space and the remote place of the other speaking person” (de Souza e Silva and Sutko, “Theorizing” 25), her peripheral body can be regarded as an extension of her senses, as its very name denotes. The following excerpts from *The Peripheral* describe Flynnne’s process of embodying the peripheral for the first time, which constitutes another striking example of the way her senses are extended due to their fusion with a mechanical body:

[Flynnne] didn’t remember sitting up but then she saw her own hands and they weren’t. Hers. (175)

Flynnne raised her hand, touched her face, not thinking. [...] Again, with both hands. Like touching herself through something that wasn’t quite there. (176)

“This is a...machine?” She touched...someone. Stomach. Breasts. She looked in the mirror. [...] “That’s got to be somebody,” she said. “Yes,” said Ash, “though we don’t know who. [...] Flynnne touched the steel. Someone else’s hand. Her hand. “I can feel that.” (177-78)

Ash [put] her hand on Flynnne’s shoulder. [...] Her hand, thought Flynnne, but whose shoulder? (178)

“Can you smell the flowers?” Flynnne nodded. (180)

The verbs “looked,” “feel,” and “smell” together with the repetition of the verb “touched” that appears in the excerpt above underline Flynnne’s synesthetic experience of telepresent space. Flynnne is actually struggling to accept the idea of possessing a new body in addition to inhabiting a new environment; this reveals her confusion as well as difficulty to accept the peripheral’s hand as her own. The multisensory and haptic sensations Flynnne’s body is endowed with due to the peripheral’s interventions certainly augments what her natural body can already experience.

Although Ingrid Richardson and Rowan Wilken utilize the term “haptic or tactile vision” to describe the synesthetic “aspect of mobile phoning and [locative] gaming” (“Haptic Vision” 27), to be discussed in Chapter Three, it can be used here to refer to this kind of telepresence that the mobile phone renders feasible in *The Peripheral*, and, more specifically, to the transformation of Flynnne’s vision into a material and haptic experience as a result of her being embodied in a material, even though mechanical, body that allows her to move and act in a telepresent space. Indeed, her mobile phone does not only permit her to see this new reality, but also to actually feel this place with her peripheral body. Consequently, using Richardson’s words to describe Flynnne’s condition, I would argue that she “experience[s] visual, aural, and/or multi-sensory presence at a place where [she is] not physically located, [...] extend[ing] [her] senses *into* a remote location, and simultaneously seiz[ing] the remote location into [her] own immediacy” (Richardson, “Audible” 1219-20; emphasis in original). Therefore, the mobile phone as used in Flynnne’s case, and by extension her peripheral body, are “not simply prostheses or augmentations of [her] sensorium, but tools which impact upon [her] body limits, shifting the variable boundaries of embodiment, and altering [her] sense of having a body” (Richardson, “Pocket” 207).⁶³ While the mobile phone is an extension of Wilf’s technosoma,

⁶³ In writing this, Ingrid Richardson refers to “[m]obile media technologies, and tele-technologies more generally” (“Pocket” 207). However, this can be applied to *The Peripheral* as well.

as already argued, here with the depiction of the peripheral body Gibson complicates Richardson's soma theory that was commented upon earlier. Flynn's peripheral constitutes a "tele-soma," given that the mobile phone here has a double function. Firstly, it enables her to "[be] corporeally tethered to [another] body in real time, and thus paradoxically co-present at-a-distance" (Richardson, "Audible" 1220),⁶⁴ while her organic body is situated in another physical reality in the 2030s. Secondly, the phone is incorporated in the peripheral body in future London: "It's a body, [...] [g]ot a phone built in[,] [which is] inside, somewhere. On-off menus on the roof of your mouth, like a keyboard" (*The Peripheral* 185). The embeddedness of functions mentioned here creates an effect of layeredness and multiplicity, with the smartphone enabling her to achieve "ontic dispersion," to use Richardson's terms once again. This offers Flynn the ability to achieve telepresence by seeing what other characters see. Put simply, Flynn eventually has two phones: one for her static organic body that grants her access to Wilf's world, and another one for her mobile peripheral body that enables her to connect and communicate with the characters in Wilf's future world.⁶⁵

Consequently, Flynn's haptic vision invites a reconsideration of the telepresent spatial realm she enters that appears to be emphatically material. First and foremost, this space is initially presented as an informational realm that can be accessed virtually via a "very mysterious server" (*The Peripheral* 284). As Lev also informs Wilf, this server is a "massively encrypted [...] device that sends and receives information, to and from the past[,] [...] generat[ing] continua" (189). This creates the impression to the readers that the connection between the two spaces can only be realized via a computer. However, the twist that Gibson

⁶⁴ Richardson attests that "with telephonic telepresence we were afforded the impression of being corporeally tethered to another's body in real time, and thus paradoxically co-present at-a-distance" ("Audible" 1220), something that is applicable to *The Peripheral* in Flynn's case.

⁶⁵ This kind of technology seems to be the equivalent of simstim technologies that are portrayed in Gibson's cyberpunk novels. A simstim link is a fictional device "whereby a person's brain and nervous system is stimulated to simulate the full sensory experience of another person" ("Study Guide") and in Gibson's fiction it offers one the opportunity to share personal experiences and sensations. Peripheral technology in *The Peripheral* seems to be a revised version of the simstim in which the mobile phone is used.

offers in this novel is that this future reality to which Flynne is connected is a material space that can be accessed both virtually through the server as well as through the mobile phone, as has already been commented on. Indeed, Gibson introduces a liminal space that he describes in his narrative as “virtually physical” (468),⁶⁶ to use the Remembrancer’s words when he first sees Flynne in her peripheral towards the end of the novel. This notion of “virtually physical” space is also underlined when Flynne first enters this telepresent space, with Ash, one of Wilf’s assistants, telling her: “you’re able to be here now, [...] virtually yet physically” (183). In this case, the difference between virtual and physical space is essentially blurred, since they appear to be “synonymous” (de Souza e Silva and Sutko, “Theorizing” 31),⁶⁷ a fact that is evident in the narrative in several instances. For example, after her talk with Wilf in Soho Square, Flynne, being in her peripheral, “felt like the walk through the greenway had been real. Which it had, but her body hadn’t done it” (*The Peripheral* 360). Here, the virtually-accessed space Flynne enters is presented as “real.” In addition, this blurring of boundaries between the two notions manifests itself in the dialogue between Lowbeer and Flynne: Lowbeer meets Flynne in her peripheral, telling her “that arranging your death would in no way constitute a crime here, as you are, according to current best legal opinion, not considered to be real,” with Flynne replying that “I’m as real as you are” and Lowbeer agreeing by saying that “You are indeed” (200). The same applies when Wilf visits Flynne’s world via telepresence through the Wheelie Boy,⁶⁸ “a

⁶⁶ In his Ph.D. dissertation *Place without Space, Identity without Body: The Role of Cooperative Narrative in Community and Identity Formation in a Text-Based Electronic Community*, Jon Mark Giese also refers to the term “virtually real” (259), but he emphasizes the extent to which there is correspondence between virtual communities and communities in the real world. For more information, see pp. 259-73.

⁶⁷ The underlying principle of Gibson’s idea of virtual physicality in *The Peripheral* can well be captured by Adriana de Souza e Silva and Daniel M. Sutko’s realization that “[i]f the real can be unfolded into different possible realities, the virtual and the real are actually synonymous and reality, or physicality, becomes one of the faces of virtual” (“Theorizing” 31). Although the authors do not refer to *The Peripheral*, their observations can be also applicable to Gibson’s novel.

⁶⁸ As the narrative reveals, Wheelie Boy devices were “[m]arketed as toys, baby monitors, long-distance friendship or sad romance platforms, or even a kind of low-rent virtual vacation. You could buy or rent one in Vegas or Paris, say, drive it around a casino or a museum, see what it saw. And while you did, [...] it showed your face on the tablet. You wore a headpiece with a camera on a little boom, which captured your reaction as you saw things through the Wheelie, and people who were looking at it saw you seeing that, or them, and you could have conversations with them” (*The Peripheral* 315). This headpiece brings to mind a similar device in Kathryn Bigelow’s *Strange Days* (1995), also dealing with virtual experiences.

mini-tablet with a cam, on a stick” that Flynnne “thought [...] must have been part of where peripherals were going to come from” (316). Wilf says, “I know this is real, [...] it must be, but I can’t believe it,” and Flynnne responds that “I can believe in yours, Wilf. Have to” (318). Interestingly, the characters find it difficult to accept the materiality and actuality of the worlds they visit telepresently, since both of these spaces are accessed virtually.

Gibson here is being playful with the notions of the real and the virtual: on the one hand, what is considered to be real is also virtual because it is accessed via virtual means, which in this case is the computer server and the mobile phone. Conversely, what is considered to be virtual is at the same time real because of the materiality of the characters’ spatial (bodily) experience of this very world. Hence, both worlds are simultaneously virtual and physical, that is “virtually physical.” Gibson verifies Farman’s observations that it is difficult to distinguish the difference between the virtual and “the ‘real’ space when a virtual interaction offers a very ‘real’ experience” (*Mobile Interface Theory* 36).⁶⁹ The author paradoxically combines in *The Peripheral* these two notions that have long been separate. By equating the virtual with the physical, he aims to call attention to the materiality of telepresent space. Taking into account Richardson’s theories on telepresent media, one could argue that these spaces can also be described as “quasi-spaces where a sense of presence can be felt beyond the location of the physical body” (“Audible” 1218-19). Considering all these within the context of Gibson’s post-apocalyptic world, one can claim that in a similar manner that Gibson uses cyberspace in his cyberpunk works to enable characters to move in and out of this virtual space, characters in this novel move in and out of a hybrid telepresent space in twenty-first century London, “a writing strategy that [enables] the transgression of temporal and spatial barriers” (Rapatzikou

⁶⁹ Farman argues that “[w]hile pervasive computing space often prompts a comparison between the ‘real’ and the ‘virtual,’ such dichotomies do little to inform our embodied experience of this kind of space [...]. We might even ask, what distinguishes the ‘real’ when a virtual interaction offers a very ‘real’ experience” (*Mobile Interface Theory* 36). This effectively describes Flynnne’s telepresence as well, which can be considered a form of ubicomp, as I will explain further down in the analysis.

xix). Thus, in *The Peripheral* Gibson produces indeterminate liminal spaces and bodies in an attempt to demonstrate the ways in which mobile media technologies of telepresence complicate contemporary notions of spatiality.⁷⁰ Federica Timeto's observation seems to be relevant here: "[t]he more the planes of our reality interface with one another through locative and ubiquitous networks, the more difficult it becomes to distinguish between places that are only physical and places that are only virtual, between materiality and information, between location and mobility" (98). Importantly, although Timeto refers specifically to locative media, Gibson here does not depict purely locative spaces, but he is rather interested in the similar effect that ubiquitous mobile forms of telepresence technology have on the formation of space.

If this is the case, Flynnne's telepresence can be viewed as a form of ubicomp, or ubiquitous computing. In fact, telepresence constitutes a manifestation of ubiquitous computing for Bolter and Grusin, who argue that "[u]biquitous computing is not satisfied with mere monitoring" (219), as has been the case in the novel so far with Wilf's droning process and the aunties. In particular, what Bolter and Grusin attempt to highlight is that "telepresence brings the physical world into the virtual environment" (214-15), which seems to apply to Flynnne's telepresence, since her physical presence is brought into virtual space, which also appears to be physical, as has already been shown. In this manner, Gibson produces a kind of "physically manifested telepresence" (*The Peripheral* 136), as Lowbeer claims about Flynnne's condition in the narrative. The merging of the physical and the telepresent noted here echo Hayles's objection as regards the separation of the virtual from the physical when she talks

⁷⁰ Another drone-like device that is used by characters in the novel is Viz, which works like smart glasses technology and complicates the notion of space. In fact, Macon in *The Peripheral* wears a Viz in an attempt to "[keep] an eye on news and the market" (278), while Edward uses Viz to "[work] long distance" for a company (386). Specifically, the objects Edward works on are virtually projected in front of his eye and are thus invisible without the Viz. As is the case with Phoenix's body and the poppies in *Spook Country*, Gibson here creates once again a liminal effect because, although the thing Edward is working on is invisible due to its virtuality, it becomes visible with the use of specific technological equipment only. Therefore, like Hollis in *Spook Country*, Flynnne "could almost see the thing he was working on, but of course she couldn't, because it wasn't there" (98). In another instance, Edward "picked up the thing that wasn't there[,] [t]urned it over[,] [p]rodded it with an orange and black forefinger" (99). As in *Spook Country*, the virtual is superimposed on the physical world, consequently creating a hybrid space.

about our seduction “by fantasies of unlimited power and disembodied immortality” (*Posthuman* 5), and the need to “fully recogniz[e] the importance of the embodied processes constituting the lifeworld of human beings” (20). In a similar vein, Flynne in the novel does not inhabit virtual space, but temporarily acquires a *material* existence that is actualized via mobile communication technologies. Flynne’s case illustrates not only how the virtual becomes physical by being re-embodied in a material yet mechanical body, but also it takes this a step further if one considers that the interaction of her mobile phone with her organic body can lead to the emergence of a hybrid entity that comprises both organic (human body) and technological elements (mobile phone and peripheral body). This is because Flynne’s organic body controls an artificial drone-body via mobile technologies of telepresence. Thus, telepresence serves as a narrative trope here used to show the shift in spatial perception as a result of the interaction of the human body with mobile technologies.

As regards the materiality of virtual space, it seems that in *The Peripheral* Gibson emphasizes the co-existence of the two spaces and the spatial hybridity resulting from their cross-fertilization, capturing the shift in contemporary theories of virtuality that is emphatically evident in the mid-2010s. In contrast to the idea of the virtual as a separate realm, scholars in the 2010s, such as Jason Farman and Hidenori Tomita, emphasize the physicality of the virtual, erasing the difference between physical and virtual space. Namely, on theorizing about ubicomp space, Farman verifies that “theories of virtuality and simulation fail us in important ways,” in that they “tend to ignore the materiality of the virtual” (*Mobile Interface Theory* 37, 38). Farman also claims that the virtual and the physical should be used in conjunction with and not “in isolation from one another” because “[t]he virtual as a force or power is always conjoined with ideas of actualization or realization” (22).⁷¹ What Farman actually stresses here

⁷¹ Farman continues theorizing about the materiality of the virtual, contending that “the virtual is not the opposite of the real; instead it is a component of experiencing the real. The virtual serves as a way to understand the real and as a form of actualization that serves to layer and multiply an experience of that which is already realized” (*Mobile Interface Theory* 22).

has to do with the ability of the virtual to be potentially “realized or actualized [...] through embodied practices” (22), something that is evident in *The Peripheral*, as already shown. This idea of the virtual as actual or potential is also promoted by de Souza e Silva and Sutko, who place the discussion about the real and the virtual within the context of mobile locative applications, arguing that virtual narratives placed in the urban physical environment with the use of locative means are actualized by these technologies (“Theorizing” 33-35),⁷² as is for example the case with the texts to be explored in the next chapter of this dissertation. This approach to locative media can prove useful enough to discuss the ways in which the real and the virtual interact in *The Peripheral*, since Wilf’s and Flynn’s worlds remain virtual until they are actualized when the two characters connect to the peripheral and Wheelie Boy respectively. In other words, the virtual becomes real when the two characters are re-embodied.

Hidenori Tomita utilizes another term, the “second offline,” to refer to the equation of the virtual and the physical. Her observations can be used with regard to Gibson’s visualization of the digital and the real in *The Peripheral*. For Tomita, the real world is the offline world, while the virtual can be regarded as the physical world and is thus defined as a second offline in the sense that it is “an online space merged with the reality of the offline space” (“Conclusion” 157, 159). While, according to Tomita, the two realms of the virtual and the physical can be equated in the sense that the second offline is “the state in which virtual information is superimposed onto real space, the situation in which people constantly refer to information on the Internet in their everyday lives, or an offline mode in which people always refer to online information” (157), Gibson seems to be metaphorically approaching these observations from a literary perspective. This is because Gibson establishes a co-influential

⁷² In “Theorizing Locative Technologies Through Philosophies of the Virtual,” de Souza e Silva and Sutko refer to locative media in an effort to consolidate their argument. However, their observations can effectively be applied to *The Peripheral* in order to discuss the relationship between the real and virtual. The reason I refer to de Souza e Silva and Sutko’s locative theories here is to theorize about the mobile (telepresent) technologies in *The Peripheral*.

relationship between the two future worlds, which echoes Tomita's argument that "offline and online information may influence each other" to the extent that one may "anticipat[e] a case in which their relationship is cooperative," or "a case in which there is conflict between online and offline information" (160). Gibson's literary exploration of this viewpoint allows him to elaborate on the discussion about the relationship of the virtual and the physical that he initiated with his cyberpunk works. Rapatzikou asserts that Gibson "has particularly been concerned with the general atmosphere of transience evoked by virtual reality practices and the erosion of boundaries between observed reality and its cybernetic reproductions" (211-12). With *The Peripheral* Gibson has chosen a particular literary framework that draws both on science fiction and post-apocalypse to examine the cross-fertilization of the two spaces, since this gives him the opportunity to articulate his two-fold attitude towards technology, which features as both "the embodiment of human inventiveness and an omnipotent herald of destruction" (Rapatzikou 22), as has already been pointed out earlier in the chapter. This becomes evident in the novel, since the same mobile technologies that are used in order to save Wilf's world from the Jackpot are also used to engage the two worlds into "an invisible two-party [economic] world war" (*The Peripheral* 271) in which forces from Wilf's world try to economically exploit Flynn's world. Therefore, Gibson's worlds in *The Peripheral* can be viewed alongside such theoretical observations, given the fact that there is constant exchange of information between the two worlds and one influences the other. As Flynn remarks in the novel, "[i]nformation from there affects things here" in her world (192).

In line with this, Gibson's use of time-travel in *The Peripheral* helps him describe movement between the two spaces, but with a twist. He creates what Eric Kluitenberg terms "'impossible media/apparatus/machines,' or 'imaginary media'" (56), as is the case with the peripheral body, the technosoma, and Wheelie Boy. These media function as time machines that transcend space and distance. Kluitenberg argues that "[m]ost time machines 'merely'

transport persons and objects through time while not being specially focused on establishing communication across these temporal divides” (63). However, in *The Peripheral*, as already shown, communication between the two future worlds is reciprocal. Furthermore, in the epigraph in the novel Gibson refers to time travel by providing the readers with a quote by H. G. Wells⁷³ — “I have already told you of the sickness and confusion that comes with time travelling” (*The Peripheral*) — with the reference to “sickness and confusion” highlighting the characters’ feelings when they enter telepresent space. Flynn corroborates this in the narrative, feeling that “[t]he going back and forth between her body and the peripheral [is] confusing” (360). Reading this epigraph from the readers’ point of view, one can argue that it highlights their own confusion while reading the novel due to the constant transference of the characters from one world to the other throughout the narrative. However, the author himself obscures and subverts the concept of time travel, since, as Flynn says, “it’s not like time travel in a show. Just information, back and forth” (186-87). Viewing this in tandem with Gibson’s cyberpunk science fiction, it is worth considering Rapatzikou’s view that “[t]he confrontation between worlds [...] constitutes a key factor in the science fiction and postmodern fiction ‘cross-fertilization’ process” that becomes evident in cyberpunk, while “[t]he notion of *temporal displacement* is [in Gibson’s cyberpunk] complemented with *spatial displacement*, intensifying the ontological status shared between science fiction and postmodernist fiction” (50-51; emphasis in the original). While Rapatzikou views cyberpunk science fiction, due to its “hybrid narrative form,” as “an example of displacement, addressing a readership living in a displaced ‘science-fictional world’” (51), Gibson in *The Peripheral*, as shown so far, places this temporal and spatial displacement actualized through time-travelling within the context of pervasive and mobile computing technologies and post-apocalyptic science fiction; he actually

⁷³ Eric Kluitenberg states that “[t]ime machines are quite obviously imaginary machines — even more than tele-transportation and universal communication devices they have populated popular fictions since the stories on chronotravel of H. G. Wells, where traveling through time was achieved no longer by divine intervention but instead by manmade machines” (63).

presents his future worlds as being in a constant exchange of information via technological means in an effort to comment on the potential and dangers these technologies entail.

In addition, time-travel can be seen as a narrative technique that reformulates Ryan's idea of "recentering," which was discussed earlier in relation to *Spook Country*. Ryan writes that "[i]n the space-travel mode, consciousness relocates itself to another world" (*Narrative as VR* 2 73), which also affects the way these worlds are experienced.⁷⁴ If this is considered in relation to *The Peripheral*, Flynne's and Wilf's worlds are relocated or recentered via the mobile technologies the characters use, which allows them to experience each other's worlds both virtually and physically. As a result, Gibson extends the idea of recentering in *The Peripheral* to the readers themselves constantly needing to "recenter" while reading the novel in their effort to experience it both from Flynne's and Wilf's perspective. Hence, Ryan's space-travel narrative model when applied to *The Peripheral* can be viewed as a means through which characters can gain access to different spatio-temporal geographies via smartphone telepresence.

Last but not least, peripheral technology in the novel relates to the anthropomorphization of objects. Bogost insinuates that this very act paradoxically constitutes a means of anti-anthropocentrism in the sense that it is an attempt by human beings to expand their perception of their world by obliquely embracing objects as part of their identity (65, 108-09). In the context of *The Peripheral*, Wilf observes that when Flynne is not in her peripheral, the latter is merely an object "[n]ot sentient, yet [...] effortlessly anthropomorphized" (391). With the peripheral having become part of Flynne's self, she is herself objectified. This is illustrated by the fact that, as Wilf notices, "Flynnе completely altered the peripheral's body language," but also that, "[i]nhabited, its face became not hers but somehow her" (179). The

⁷⁴ This is reminiscent of Gibson's simstim technologies that appear in his earlier novels, to which I referred earlier in the present chapter.

narrative further explains that “peripherals, when under AI control, looked human because their faces, programmed to constantly register changing micro-expressions, were never truly still. In the absence of that, [...] they became uniquely disturbing objects. Flynne was now providing the peripheral with her own micro-expressions, a very different effect” (179). Although the phrase “uniquely disturbing objects” that is used to describe the peripheral denotes a detestation towards objects, the anthropomorphizing of the object body makes it look much friendlier to humans. At the same time, however, this also turns humans into objects, as Flynne’s fusion with her peripheral shown earlier indicates. The author offers readers various perspectives and aspects of mobile technologies here by avoiding providing clear-cut answers. He confronts his readers instead with an open-ended and, once again, ambiguous situation in which they are invited to decide whether this is a world of anthropomorphized objects or objectified humans.

All things considered, Gibson presents readers with the ways in which smartphone technologies can reconfigure our sense of embodied location, surveillance, virtuality, and telepresence. In her article “The Persistence of Surveillance: The Panoptic Potential of Locative Media,” Andrea Zeffiro provides the following definition of locative media, underlining three important aspects: “[f]rom a technological perspective, locative media is an example of location aware computing, a combination of mobile communications, such as Personal Digital Assistants and mobile phones, and geosurveillance (6). Zeffiro’s view can be used to summarize the way locative media is approached in this chapter in relation to Gibson’s *The Peripheral*. Firstly, locative media is viewed as part of pervasive computing technologies that are also location-aware; secondly, it is examined and analyzed in conjunction with mobile media technologies, leading to a reconfiguration of virtual space and its relationship with the human body, the mobile device, location, and telepresence; thirdly, it is considered a new, ubiquitous system of mass surveillance. It seems that with *The Peripheral* Gibson seeks to

demonstrate in literary terms the significant role that the smartphone has played and is about play in the transition from personal to ubiquitous computing.

Moreover, all these manifestations of locative media are examined in the novel in order to illustrate different forms of droning space and the human body as regards the way it relates to smartphone technology. What unites all the ideas discussed in the present section is the figure of the drone as a locative medium serving as a narrative trope in the novel that facilitates the discussion of the shifts in the interrelationship of virtual/telepresent/digital with physical/material space. Thus, I have examined the effects of the smartphone droning process on the way space is perceived within the context of mobile communication technologies and ubicomp. As a result, spatial dispersion characterizes all stages of the smartphone droning process described in the novel — from the smartphone droning process involved in locative media applications to the droning of the human vision to the embodied telepresence via anthropomorphic drones — since all characters are capable of being co-present in multiple locations telepresently through the use of the smartphone. Gibson deftly examines and elaborates in his narrative on the impact mobile and locative media can have on the individual and the ways she/he perceives her/himself in relation to the reality that envelops her/him and her/his relationship with others.

Both novels examined in this chapter, *Spook Country* and *The Peripheral*, illustrate the ability of literary language to visualize the recent advances in new media technologies. Gibson encapsulates through literary practice the latest cultural shifts in the development and evolution of the field of locative and mobile technologies, presenting the opportunities and the challenges when one moves from locative media technologies to ubiquitous (mobile) computing environments. The examination of the relationship between virtual and physical space allows readers to explore and think critically about the relationship between certain binary oppositions,

such as virtual/physical space, materiality/immateriality, visibility/invisibility, embodiment/disembodiment. Importantly, in the context of contemporary mobile media technologies these notions ought no longer be considered as binary oppositions, since the boundaries between them have further been blurred. This is exactly what Gibson invites us to focus on by bringing to our attention an emerging world that is currently being shaped by mobile, locative, and ubicomp technologies.

Having examined so far the ways in which locative media are represented in the print medium, in the next chapter, I will explore the ways in which locative media reconfigure the relationship between print and digital textuality and narrativity.

CHAPTER TWO

Reconciling Locative and Print-Centric Narrative Practices

The mobile body could offer continuous new perspectives on the world, allowing for a far richer and subtler perception by all the senses — Martin Reiser

2. Introduction: Neutralizing the Tension between Sedentary and Experiential/Dynamic Locative Reading Practices

The present chapter investigates the ways in which locative narratives challenge and subvert conventional reading practices associated with printed texts. Locative media theorists, such as Brian Greenspan, have explored the various aspects and affordances of locative texts, namely their performative, experiential, textual, and narrative elements. By calling attention to Greenspan's theories, this chapter focuses on the exploration of the relationship between the narrative and the experiential aspects of locative texts. The first section of this chapter will pay attention to *The Silent History* (mobile app 2012, novel 2014), a serialized novel by Eli Horowitz, Kevin Moffett, and Matthew Derby, which was published in both digital and printed form, and also consists of site-specific narratives spread around the globe, called "field reports." The second section will examine two site-specific sound-walks: *Times Beach* (2017) by Teri Rueb, and *Fens* (2017) by Teri Rueb and Ernst Karel. Although one could argue that conventional print reading practices appear to be evident in all three texts, these texts practically foster new modes of reading⁷⁵ that are achieved through the readers' embodiment. This illustrates that locative media texts have been informed both by traditional literary practices and a new type of dynamic narrative practice that is achieved through the readers' interaction with text and place as well as through their active participation in the narrative

⁷⁵ While "what a mode is continues to be subject to debate," the term "mode" will be used in this chapter in a broad sense to "[refer] to a set of socially and culturally shaped resources for making meaning" as well as to "a 'channel' of representation or communication for which previously no overarching name had been proposed" ("Mode"). Attention here will be paid to conventional print-centric modes of reading, such as reading a text on the computer screen, but also to the mode of "embodied interaction" with space (Raley, "Walk" 303) that is required in location-based texts, as will be shown.

experience. Before describing the methodology that is going to be followed in this chapter, it is important that certain aspects of Greenspan's theory be explicated in detail.

In his article "The New Place of Reading: Locative Media and the Future of Narrative," Greenspan refers to the tension that exists between the two dimensions of locative texts: the narrative and the performative. He writes:

Far from representing "a challenge to the hegemony of words" [...], then, locative narratives mobilize printed literature's traditional mode of decontextualized engagement within new spatial contexts in ways that often interfere with the performance of place, foregrounding the productive *tension* between the traditional experience of fictional transportation and new modalities of mobility that constitutes our present medial condition. (emphasis added)

Greenspan attempts to reconcile the tension between these two dimensions, arguing that locative texts should combine both the fictional transportation that is evident in conventional printed narratives with the embodied ways of interacting with text and place that is evident in locative narratives, which is where the performativity of these narratives lies. While Greenspan agrees with Chris Eaket and Rita Raley that locative texts display performative aspects, he vehemently opposes Raley's claim that locative texts "challenge [...] the hegemony of words" ("Walk" 303). This is due to the fact that there are locative texts that abide by the principles of fictional texts that pertain to print-centric narrative strategies in terms of the ways in which readers are engaged in their narrative world. In fact, Greenspan observes that, while locative texts display "conventionally sedentary modes of literary engagement," they also display "embodied interactivity," a concept that alludes to the "more dynamic, continuous and complex models of spatial interaction." To be more specific, Greenspan's main argument is that, despite "hold[ing] out the promise of an enhanced mobility and situational awareness," locative texts actually "isolat[e] [their readers] from the real world," by transporting them to a fictional

storyworld, as is the case with conventional printed literature. It is this very tension between “sedentary mental activity” and “modes of embodied interactivity” in locative texts that Greenspan attempts to “neutralize,” as he explicitly mentions.

Further explaining Greenspan’s theory, one needs to observe that the critic considers most locative texts to be “limiting.” Essentially, locative texts require readers to resort to “sedentary reading practices that continue to structure the experience of digital literature,” sharing “conventional features of printed literature [...], including a primarily textual emphasis” (Greenspan). In fact, Greenspan claims that locative narratives remediate e-book and audio books. Indeed, he observes that “new eBook and audio book formats remediate reading habits and assumptions associated with printed literature that prevent a broader recognition of the literary potential of locative media.”⁷⁶ This is because they promote “a residual notion of literary reading as a sedentary experience that ‘transports’ the reader to a fictionalized space removed from the actual world” (Greenspan).⁷⁷ To overcome those limitations of locative narratives, that is their sedentary aspect, Greenspan co-designs “StoryTrek, a prototype authoring and reading tool for locative hypertext,” which “neutralizes the [afore-mentioned] tension between habitually sedentary reading habits and the emergent performativity of locative media.” Although Greenspan reaffirms “the emergent performativity of locative media” that manifests itself in the ways in which the readers are required to perform the narrative with their bodies,⁷⁸ his major problem lies in the realization

⁷⁶ Brian Greenspan believes that “[l]ocative narratives provide precisely the interactive and performative element that is currently missing from eBooks and audio books, which may explain why they have not gained a wider appreciation.” This is because “most locative narratives must be experienced *in situ*, running directly counter to the model of mass dissemination that governs both printed literature and eBooks.”

⁷⁷ In fact, Greenspan writes: “eBooks, like audio books, do not generally connect narratives to new locations or change the spatial contexts of reading so much as they recreate this learned sense of disconnection, encouraging mobile readers to decontextualize and ‘leave behind’ ever more real-world locations.”

⁷⁸ Greenspan writes that “StoryTrek constantly raises tensions between real and represented spaces; for instance, some users who wanted to emulate the spatial action of the story were prevented by busy road traffic or impassable physical terrain. These users reported real anxiety and frustration at this inability to enact the story bodily, one mark of the tension between habitually sedentary reading habits and the emergent performativity of locative media.”

that “most locative narratives function by connecting discrete narrative moments to specific points on the grid, such that audio clips or text lexia are activated whenever a user reaches a particular location,” a fact that “limit[s] the interactivity, responsiveness and spatial awareness of locative narratives” (Greenspan). This being the case, locative narratives do not seem to actually depart from the sedentary “‘waypoint and graffiti’ model of interaction offered by most locative and augmented reality applications” that Greenspan insists should be avoided.⁷⁹ Thus, Greenspan refers to the two dimensions of locative texts, the performative and the narrative dimension, while stressing the need to create locative texts that neutralize the tension between those two dimensions. The critic suggests then that, like the locative narratives created with the StoryTrek authoring tool, locative texts should abandon conventional sedentary reading practices so that new locative narrative practices should emerge, requiring the readers to experience locative narratives in embodied and dynamic ways: in this way, the readers will be immersed in the narrative world without being isolated from the physical world.

Although I will not be analyzing the StoryTrek tool in this chapter, I will use it as a point of departure with the aim to illustrate that it is not only StoryTrek, or in other words StoryTrek-generated stories, that neutralize the tension between the two afore-mentioned dimensions, but there are also texts that do so by *combining* the two aspects in oblique and innovative ways. To be more specific, I intend to offer an alternative to Greenspan’s argument by presenting three case texts — *The Silent History*, *Times Beach*, and *Fens* — that, contrary to StoryTrek stories, conform to sedentary reading practices by actually combining these practices with embodied interactivity in complementary ways in order to avoid isolating the audience from the physical space, while also achieving immersion in the storyworld, as StoryTrek stories do. In other words, what *The Silent History*, *Times Beach*, and *Fens*

⁷⁹ This is because “[s]uch applications know where you are at any given moment, and can provide information about your immediate surroundings – the digital equivalent of a road sign or memorial plaque – but have no idea how you got there or where you might go next” (Greenspan).

demonstrate is that “the traditional experience of fictional transportation and new modalities of mobility” (Greenspan) may co-exist, which is something that Greenspan also attempts to prove through StoryTrek. That is to say, sedentary narrative practices and experiential, performative and “embodied interaction”⁸⁰ with physical space, to use Raley’s terms (“Walk” 303), which is required in locative reading, seem to complement each other in the texts to be analyzed here, thereby leading to the formation of more dynamic kinds of narratives that utilize both traditional and new (locative) modes of literary practice. In this manner, I will attempt to prove that *The Silent History* and the sound narratives, *Times Beach* and *Fens*, challenge the print-centric formats of the e-book and audio book respectively. I use the word “print-centric” to include e-books and audio books, which although not print, remediate print reading practices, as argued already. Greenspan’s locative strategies to which he resorts in order to analyze StoryTrek-generated stories can be used to discuss the locative narratives in *The Silent History*, *Times Beach*, and *Fens*, as my analysis will show, something that further corroborates my argument that these specific texts create effects that are similar to StoryTrek with regard to the ways in which the audience experiences the narrative. Importantly, however, the difference between StoryTrek stories and the texts to be analyzed in this chapter is that the latter *do* retain sedentary print-centric reading practices, despite challenging them eventually. That is to say, paradoxically enough, while the locative narratives I will analyze inevitably rely on print-centric practices by isolating the users from the physical world, something that Greenspan insists locative narratives do, they eventually succeed in neutralizing Greenspan’s tension by effectively resorting to innovative strategies that lead to the audience’s active engagement with physical space. Greenspan’s problem with locative narratives can finally be recapitulated in his contention that “[p]erformance-oriented approaches can account for the uniquely embodied

⁸⁰ This is a term that will be appearing throughout the analysis in this chapter and thus it will be referred to without the use of any quotation marks.

interactivity of locative media, but do less to account for the conventional features of printed literature which they retain” (Greenspan). However, what I will attempt to do in this chapter is to illustrate that alternate dynamic narratives may emerge through the process of connecting texts with places.

In order to explore the ways in and the extent to which these texts neutralize the tension in question, I will follow a specific methodology by resorting to other theorists as well. I will examine the “experiential value” of locative narratives, borrowing the term from Jason Farman, who refers to it as the “value [of] standing at the site where an event took place” (“Site-Specificity” 7). In fact, Farman notices that “far more than simply reading about an event, being in the place where that event happened offers *experiential value* that gives us a deeper sense of the story and the ways that story affects the meaning of the place” (7, emphasis added). The analysis in the present chapter will thus be structured on the basis of the degree of experiential value of the locative texts, which enables one to determine the extent to which these narratives retain print-centric reading practices or keep the readers connected with the real world, while also offering “a deeper sense of the story” (7), to use Farman’s own words. To do this, I have developed a spectrum or scale on the basis of the ways in which the text in the locative narratives connects with the locations. I have grouped the locative narratives in this chapter according to how the audience (readers/listeners) participates in the locative narrative experience by interacting with the various locations, which will determine whether the narratives are of low or high experiential value. I have identified a number of levels of experientiality to which each set of locative narratives belongs — four levels for *The Silent History* and five for *Times Beach* and *Fens* — starting with the ones of lower experiential value, which belong to the lower levels of the scale, while gradually moving on to the texts of higher experiential value, which correspond to the higher levels of the scale. The higher the narrative’s level of experientiality is, the more active the audience’s role and participation in the narrative

experience through the interaction with locations becomes; and thus the farther away from the sedentary print-centric reading practices the locative narrative moves, the greater the reader's immersion in both the physical and narrative world will be.⁸¹

What determines the transition from one level of experientiality to the next is what has been termed by Espen Aarseth as “ergodicity,” or rather, the amount of “nontrivial effort [that] is required to” engage with the narrative experience (*Cybertext* 1). In the case of locative narratives, “nontrivial effort” has to do with the audience's interaction with the locations each time, that is interaction with the elements in the physical space. Although I am borrowing this term from Aarseth here, the idea that this kind of effort can be measured is attributed to Jeff Ritchie, who appropriates Aarseth's theory to locative narratives on the grounds that they require “*really* nontrivial effort” to be experienced “because the story space has the possibility of being harder to understand, due to its existing across two different media spaces to be explored, being potentially bigger than other types of narratives, and requiring audiences to constantly discern what does or doesn't belong within the storyworld” (J. Ritchie 57-58; emphasis added).⁸² Indeed, as J. Ritchie notices, [t]urning a page or clicking a link takes far less perceived effort than moving through physical space and attempting to identify a narrative element” (58). Thus, while the lower-level narratives require no or minimal effort to be

⁸¹ I adopt here also Emma Louise Whittaker's view that “*participation* in locative narrative involves the situated body operating within the environment of a specific place” (131; emphasis in the original). Whittaker also refers to the importance of the audience's participation in the locative narrative experience by “defin[ing] locative narrative in terms of its experiential and formal complexity, that results from the *active participation of the audience* within the location in which the narrative is situated” (312, emphasis added). Concerning participation, she writes that it “can range from interpretation and sense making to co-authorship in cases where the participant is asked to intentionally engage in creating parts of the story” (132). Interestingly, Whittaker “put[s] forward an experiential framework that engages with the ontological and epistemological challenges of multi-stability, that is based upon, and offers a new reading of the writings of the late 19th century and early 20th century psychologist, philosopher and educator, William James” (26). The author comments that “[i]t is ‘experience’ that forms the basis of this new reading of James' writings,” as well as that she is “[b]ased on the experiential framework” in order to “develop a relational analytical approach to the interpretation of locative narrative experiences” (28, 30).

⁸² Jeff Ritchie refers to the “Narrative value threshold,” which can be used in order to illustrate that “[f]or a reader to be willing to expend the perceived effort necessary to continue ‘reading’ a story, the reader must perceive the rewards of that narrative to exceed the perceived efforts required” (54). He also adds that “[t]his threshold is particularly relevant given the ‘really nontrivial effort’ necessary to ‘read’ mobile locative narratives” (54). I am borrowing the phrase “really nontrivial effort” here to construct the scale of experientiality.

experienced, the higher-level narratives require “really nontrivial effort,” to use J. Ritchie’s terms (57). The placing of these texts in this spectrum will enable me to determine the extent to which these texts reconcile Greenspan’s tension.⁸³

I will thus begin with the analysis of *The Silent History*, a text that seemingly conforms to traditional print-centric reading practices, although it promotes an enhanced yet concealed mode of “embodied interactivity” (Greenspan) even through a literary metaphor that other critics have ignored.

2.1 Narrative and Experiential Elements in *The Silent History*: Revolutionizing the E-Book

Based on Greenspan’s theoretical framework, this section will comment on the ways in which *The Silent History* neutralizes this tension between the narrative and performative/experiential aspects of locative texts through the incorporation of locative narratives in the novel — or “field reports,” as they are called — that foster new modes of reading. In fact, these locative narratives combine conventional print-centric reading practices pertaining to e-book technologies with the embodied interaction between the audience, the text, and the physical environment. My aim in this section is to explore how, through its locative narratives, *The Silent History* remediates, but also challenges and even subverts, the sedentary practices pertaining to e-book technologies; I will also argue that the main narrative of the novel and the field reports themselves self-referentially comment on the ways the latter are experienced by the readers, thus further neutralizing the tension in question.

Moreover, the concept of immersion, which has been discussed in the previous chapter as well, will be reconsidered and reassessed in relation to the locative narratives of *The Silent*

⁸³ Table 1 in the Appendix shows the categorization of the locative narratives of *The Silent History*, *Times Beach*, and *Fens*.

History: I will explore the ways in which readers of the locative narratives are immersed not only in the fictional, but also in the physical world. To do so, I will categorize the locative narratives in terms of their experiential value, as I explained earlier, placing them in the scale of experientiality that has been devised for the needs of the proposed analysis. However, I will only resort to the locative narratives that are situated in the North-Eastern part of the USA, and the cities of Chicago, New York City, and Boston in particular;⁸⁴ these texts will eventually be examined in conjunction and juxtaposition with the main narrative of *The Silent History*. I will attempt to establish connections between these two types of narratives in order to draw evidence with regard to the ways in which locative narratives can be approached and experienced as well as the ways the tension to which Greenspan refers is ultimately reflected in the themes tackled in the main narrative of the novel. This combination of texts has not been explored so far, which is where the authenticity and originality of the present analysis lies. This of course means that the examination of different field reports from the ones I am about to analyze in this chapter may lead to different textual combinations and possibly to different results from the ones drawn here, a fact that in itself paves the paths for future research possibilities. Before proceeding with the analysis of the novel, it is worthwhile to comment on its structure, format, and plot.

The Silent History was first released in 2012 as a serialized novel in the form of an iPhone/iPad mobile application, offering readers one episode on a daily basis for a six-month period. The plot of the novel, which extends between the early 2010s and early 2040s, revolves around the tension between the talkers and the “silents,” as they are called, who are people diagnosed with “Emergent Phasic Resistance,” a condition that deprives them of their ability to comprehend, process, and produce language as well as engage in any kind of verbal

⁸⁴ As part of my Ph.D. research I had the opportunity to conduct field work, visiting four major urban centers in the USA: I managed to access the field reports of *The Silent History* that are situated in Chicago, New York City, and Boston, while also experiencing *Times Beach* and *Fens* which are situated in Buffalo, NY, and Boston, Massachusetts, respectively.

communication; however, as the silents grow up, they gradually develop their own non-verbal kind of communication. In this main narrative, due to the increase in the number of the silent people, humanity is gradually divided into talkers and silents, while the former are also divided into those who unfruitfully attempt to cure the silents from what is considered a disease and those who accept silence as an inseparable part of the silents' identity without trying to change them.⁸⁵ This narrative is organized around the 120 Testimonials, which are first-person reports presenting the various characters' perspective as regards the "silent" phenomenon. The app also contains the "field reports," which are site-specific testimonials written by the readers of the novel themselves that supplement the main narrative in various ways. The field reports are locative narratives that can be accessed and read only at specific locations around the globe. These narratives are not related to each other, as each one narrates a different event, and can thus be visited in any order. A map of the world is displayed on the screen of the app, depicting the places where these location-aware narratives are situated, thus inviting the readers to visit those locations.

As is mentioned in the Field Report Guidelines with which readers are provided online, these field reports do not change the main narrative nor do they make it evolve; instead, their role is to further "explore unexamined implications of the [silent] phenomenon." In fact, the readers of the novel are offered the opportunity to approach the silent phenomenon from a cultural, scientific, medical, societal, and personal perspective by "using the testimonials as a springboard to stories that had been previously overlooked." Consequently, the readers themselves become reporters, historians or investigators of this fictional phenomenon, "providing [their own] backstories, explanations, [and] mythologies." It needs to be clarified that the majority of the field reports to be commented upon in the present study concentrates

⁸⁵ In this manner, the narrative turns into an exploration of whether it is language that determines human identity, a topic that is not to be discussed in the present dissertation, however. Rather, it is the examination of the ways in which the main narrative combines with the locative narratives of *The Silent History* that is the main concern of the present analysis.

on the experiences of the fictional characters with the silent children as well as their reactions when they encounter a silent child for the first time. In yet other cases, the fictional characters and narrators of the field reports are parents of silent children expressing their concerns regarding their children's socialization skills. It needs to be stated that the fictional events that occur in these locative narratives take place in the decade of the 2010s when the first silent children were born and the first cases of the silent condition were reported. Most of the field reports to be discussed here span between 2017 and 2020 when, in the fictional world of the novel, people have started being acquainted with silent children. Moreover, many of the locative narratives can be accessed in public places such as playgrounds or parks where children can be found playing, presenting what happens when talkers encounter kids that are silent. The narratives connect with the main narrative in that they reveal the ambivalent tone that is disclosed in the main narrative of the novel regarding the silents. That is to say, while some of the reports convey positive attitudes towards those kids, there are cases where narrators express prejudiced views towards them. The multiple narrators expose the different views that are expressed towards silent people worldwide. Thus, *The Silent History* presents us with an ambivalent situation with which the readers are invited to engage critically.

The way *The Silent History* is organized and structured revolutionizes e-book technology. To begin with, Greenspan argues that e-books “remediate [not only] the relative permanence and stability of” the printed books, but they also retain the element of fictional transportation that is evident in printed literature intact, by disconnecting readers from the real world. Despite the fact that they can be carried around, e-books do not offer readers the “connectivity and situational awareness” that locative narratives do (Greenspan). Discussing e-book technology in a lecture on *The Silent History*, N. Katherine Hayles also considers the limitations of the e-book, admitting that it merely remediates and simulates print technology. However, she argues that “e-books deliberately [conceal] from us precisely the extent of th[e]

differences” “between an e-book and reading a print page” (“Postprint Production”). However, she observes that e-books with location-awareness are “smart” enough to know where readers are located, but, most importantly, “the location in which you read may also determine part of the content that you read” (“Postprint Production”). Interestingly enough, the authors of *The Silent History* promise that the novel revolutionizes and ameliorates the e-book. Indeed, Kevin Moffett, one of the authors of *The Silent History*, acknowledges that “[t]he idea was to think of a way to create a digital narrative that would in some ways engage with the technology but also read like a book. We wanted something that would take advantage of the technology, charting a slightly new path in e-books, but also be a compelling narrative” (“The Silent History”). The authors have also expressed their dissatisfaction with the e-book technology because of its resemblance to print technologies: Eli Horowitz “was seeing the rise of e-books and getting depressed because you were losing a lot of what was special about a book but not getting anything really in return from it.” Moreover, Horowitz has characterized “[e]-books [as] unmistakably a lesser form” (qtd. in Lipsitz), while Moffett supports that “[m]ost e-books are essentially PDFs of books you can read on a device” (“The Silent History”). *The Silent History* has also been characterized as “a book that uses the e-reader to its fullest” in that it also incorporates locative technologies (Lipsitz). Additionally, however, it displays multimedia capabilities, featuring “a muted palette that integrates photos and illustration” (Williamson). Indeed, the main narrative of the novel contains videos introducing readers to the silent phenomenon, but also the Testimonials which are purely textual narratives.

While the above-mentioned features render the app an enhanced version of an e-book, the novel seems to perfectly remediate the sedentary print reading practices that are associated with traditional e-book technologies. First of all, the testimonials are non-interactive textual narratives, creating the impression that readers are actually reading text on a printed page. Interestingly, the novel has also been released as a printed book: the only difference between

reading the testimonials in the printed version and reading them on the mobile screen is that the latter offers an interface that is friendly to the eyes of the readers, but also it is interactive because it enables them to access the testimonials simply by clicking on the narrative they are interested in reading instead of browsing through the printed book. Nor does the inclusion of locative narratives in *The Silent History* testify that the novel takes e-book technology a step further, that is away from traditional literary practices involved in print. Greenspan's ideas about locative narratives need to be considered in more detail here. Greenspan finds that even locative narratives can be problematic, arguing that "linking geospatial points to static narrative segments" does not guarantee a departure from the conventional reading practices associated with print. Indeed, as is the case with the Testimonials, the field reports also constitute examples of a sedentary mode of reading, as the readers are indeed invited to read "static narrative segments," to use Greenspan's words, that are far from interactive. When readers access a field report in the location to which it is attached, it is as if they read a page on an e-book. This being the case, the format of the field reports can hardly be considered to pose "a challenge to the hegemony of words," as Raley insists that locative narratives do ("Walk" 303), which is an opinion that Greenspan also criticizes, as shown earlier.

Another problematic feature of the field reports relates to the ways the location to which these locative texts are attached is integrated into the narrative. Greenspan argues that the mere fact that locative "applications know where you are at any given moment, and can provide information about your immediate surroundings" is another factor that does not necessarily guarantee a departure from sedentary practices associated with print and, consequently, e-book technologies, because these applications do not engage their readers into an active participation in the narrative experience, thus inevitably isolating them from the real world by transporting them to the fictional world of the narrative. As argued earlier, in order to explain the extent to which the field reports in *The Silent History* depart from these sedentary practices, one needs

to consider their experiential value on the basis of how active the readers' engagement with the narrative experience is, which is what facilitates the readers' immersion in the fictional and physical worlds that inevitably leads to the connection that the field reports trigger between text and place.

Specifically, the readers of the field reports engage into a process of what Rilla Khaled et al. call "reflection" in their article entitled "StoryTrek: Experiencing Stories in the Real World," which was coauthored by Greenspan as well.⁸⁶ Reflection is one of the qualities of locative narratives the authors associate with StoryTrek, and it refers to the "toggl[ing] of awareness or focus between the fictional and real worlds" (Khaled et al. 130), that is to the similarities and differences between the fictional and the physical world. In the field reports belonging to the first level of experientiality, the readers' attention is directly drawn to the similarities between the two worlds. In fact, in these field reports the fictional world is an accurate reflection of the physical world because what the former presents is projected in the latter and vice versa: the readers constantly identify elements in the physical world that constitute part of the fictional world of the narrative. This is achieved through the creation of what Marie-Laure Ryan et al. term "sense of place" (7), also relevant in the analysis of *Ingress* in Chapter Three. Sense of place is created in locative narratives through their reference to "the unique or distinctive qualities that give an identity to particular areas and regions" as well as to "the distinctive character of a place that grows out of human use and experience," as Ryan et al. would argue (7). In fact, the field reports that belong to the first level of experientiality create a sense of place by offering straightforward links between text and place, especially through the "use of [s]patial deictics [...] and of direct address" (Ryan et al. 132).⁸⁷ As is described in the Field Report Guidelines, field reports ought to "[s]ubtly direct readers'

⁸⁶ Most of the authors of this article are also designers of StoryTrek, namely Rilla Khaled, Pippin Bar, Brian Greenspan, and Robert Biddle.

⁸⁷ Marie-Laure Ryan et al. use these phrases while analyzing one of the locative narratives in [*murmur*], a locative project produced by CFC Media Lab. However, her ideas can be applied to *The Silent History* as well.

attention up and down, close and far, to obvious landmarks and overlooked details.” For instance, in a field report at Wendt Park in Chicago, the narrative resorts to the demonstrative pronouns “that” and “those” in order to direct the readers’ attention to their surroundings: “Was she even aware of my presence in *that* little park between *those* two brick apartments? [...] From that Sunday on and every Sunday for as long as I can remember we sat in *that* park. In silence. On *those* swings” (“Wendt Park,” emphasis added). In other field reports, the narrators use adverbs of place like “here” and “there,” as is the case in “Tether” situated at a playground in Cambridge, Massachusetts, where the readers can read the following text on their mobile phone or tablet screen: “And every day we’d come to this park, and I’d sit right over *here* on this bench because you can see the kind of shade it gets” (emphasis added). Similarly, in another field report outside a residential house in Brooklyn, NYC, the readers are presented with the phrase, “She lives over *there*, in that castle right across the street” (“Wall,” emphasis added). In these field reports, sense of place is achieved directly via textual means, a fact that leads to the readers’ immersion in physical space, as the latter is constantly referred to in the narrative.

There are also field reports in which the narrator directly addresses the reader, something that further intensifies the sense of immediacy between the readers and the narrative. This is achieved first through the use of the second person singular,⁸⁸ as is the case in the field report entitled “Recess,” which can be accessed in Chicago. In this narrative the narrator directs the readers’ attention to a wall, using also the adverb of place “there”: “*You* can still see the spot from my greasy hair if you look real close, right *there*” (emphasis added). Similarly, in “Help,” which is located in Boston, the narrator addresses the readers through a question and a demonstrative pronoun: “See *that* window with the metal shade over it?” (emphasis added). In

⁸⁸ Whittaker argues that in her own locative projects “the status of ‘you’ [...] turns fictional statements into declarative performative utterances,” while “[a]ddressing the participant[s] in the second person, directly brings them into the story” (306). The same effect has the use of the second person in *The Silent History*.

yet other cases, the imperative is used, as in “Grinch,” where the narrator calls attention to the Chicago Theater located nearby: “*Look* at all these lights. Aren’t they beautiful? It’s a shame they stare at the headlines across the street” (emphasis added). The use of the word “headlines” is key here, as it offers a clue to the readers that it is the theater to which the narrative is referring.

In all the above examples, sense of place is created because the narration “draws heavily on the particular resources of on-site storytelling,” as Ryan et al. would claim (132). The narratives draw the readers’ “attention [to] various directions” through their reference to certain places, thus “promoting a lived, immersive experience of space” (132). What unites these narratives then is their authors’ attempt to “connect text with location by incorporating local landmarks [...] into the narrative,” as Rochelle K. Gold also notices about field reports in Los Angeles (205).⁸⁹ However, there are field reports that direct the readers’ attention to specific landmarks without even addressing the readers directly. For instance, in “Lines” in New York City the narrative draws attention to a “corkscrew branch” in the park: “When I glanced down for obstacles, I noticed the corkscrew branch, spiraling up through the green.” The same applies to the reports “Tuesday” in Chicago and “Entertainment” in New York City where the narrators are interested in showing readers a plaque in a church and a painting respectively — “[t]here’s a plaque somewhere, in the lobby or that entrance area that says the church is really ‘Grand’” (“Tuesday”), “[t]here’s that painting above, which I don’t know if I’d noticed before, and that just sort of settled it” (“Entertainment”). Reflection becomes evident in all the above examples because what is described in the narrative — the fictional (representation of the physical) world — actually corresponds to what the readers can see in their surroundings — the physical

⁸⁹ Although Rochelle K. Gold refers to field reports in Los Angeles, the current study focuses on those in Chicago, New York and Boston, as already stated. While field reports in all four cities may have a similar effect and function, the present analysis aims to reveal all the immersive strategies that are used in the field reports located in the three cities where the research was conducted, in an effort to evaluate the extent to which they depart from sedentary reading practices.

world.⁹⁰ In terms of the storyline, although not changing the main narrative of the novel, as mentioned earlier, the narrative in these reports enhances the understanding of the ways in which silent children behave and interact with people and the environment, as is for example the case in “Lines,” as will be shown further down; or even confronts the readers with the talkers’ attitude towards the silents, as happens in “Sign” where the narrator tells nasty jokes about the silent kids. However, as clarified earlier, this analysis focuses only on the ways spatial language is used in these locative narratives in an effort to investigate the relationship between space and text.

Apart from similarities, the readers may also encounter differences between the fictional and the physical world, which is another aspect of the process of reflection, as already mentioned. As the Field Report Guidelines state, “[i]t is possible [...] that the details of the setting will change during the time between your writing and the reader’s visit.” As a result, the physical space that the readers encounter when visiting the place will be different from the fictional space that is described in the narrative. Despite the frustration this may cause to the readers, it offers them the opportunity to juxtapose the fictional with the physical world as well as “to contemplate why these similarities and differences exist and what they might mean,” as Khaled et al. would argue (131). Indeed, the lighting store and the cinema where narrative action takes place in “Crystal” and “Entertainment” respectively did not exist at the time when I visited these locations in New York City in September 2018. Likewise, the “four velvet ropes that meant as a barrier” outside the church of St. Mary of the Angels in “Tuesday,” Chicago, were nowhere to be found. Interestingly, these “mismatches between a character’s experience and the reader’s” (Khaled et al. 131) may also take place due to the change of weather conditions or season changes. For example, the ice rink in the amusement park in Central Park,

⁹⁰ The concept of reflection has also been effectively addressed by Josephine Reid et al., who refer to this “unexpected connection between physical and virtual worlds” as “magic moments,” which occur when the readers identify elements from the fictional in the real world, as already shown in the above field reports.

New York City, to which the narrator refers in “Free Skate,” did not exist when I went there in September 2018.⁹¹ These field reports belong to the second level of experientiality because the readers engage into a more active participation in the narrative experience by mentally projecting on the physical space an image of the world that the narrative in the field report creates. This being the case, these field reports are examples of what Jeremy Hight calls “Narrative Archaeology,” to which I will also refer in the next section on *Times Beach* and *Fens*. Hight argues that in a fashion reminiscent of an archaeologist who uncovers layers in the ground, the author of locative narratives “is working within the city, its streets,” uncovering “layers in time” (“Narrative Archaeology”). As a result, Hight views “[c]ities [as] archives[,] [...] accumulations, aggregates” because of their layeredness (“City” 74), something that is evident in Chapter One when analyzing Gibson’s *Spook Country* and Alberto’s locative monuments. This is also evident in the above field reports because they reveal past versions of places, which the readers are invited to juxtapose with the present version of the places, creating a layer-upon-layer effect.

The narratives of the third level in the scale of experientiality prompt the readers to participate more actively in the narrative experience by moving in physical space and/or being exposed to the sounds of the surrounding cityscape. The first example of this level includes field reports in which another quality that Khaled et al. address in their analysis of *StoryTrek* becomes evident, that of role-play. This quality involves the comparison of the readers’ “personal perspectives with those of the [...] characters’ through which the story is focalized” (Khaled et al. 130). In particular, the readers attempt to “identif[y] similarities between their own perspectives and those of the characters, as if attempting to use their experience in the real world to add depth and verisimilitude,” that is to say a sense of realism, “to their understanding

⁹¹ These field reports resemble Anders Sundnes Løvlie’s “counterfactual placetexts” in his locative authoring system “textopia,” which, like the above-mentioned field reports, also “speak of [real-world] places in ways which contradict their present reality” (173).

of the represented story world” (130). In the following examples from the field reports, the perspective of the narrator matches the readers’ perspective. As Khaled et al. argue, “[t]his ‘perspective matching’ ha[s] the effect of intensifying identification with characters” (130), the only character though here being the narrator himself/herself. To be more specific, when talking about StoryTrek, Khaled et al. contend that it is “[b]ecause StoryTrek readers exert some control over how the narrative progresses” that this kind of “identification can be further viewed as a type of role play in which readers take on the role of characters, and tacitly play out these roles for the duration of reading” (130). Even though *The Silent History* readers do not have control over the narrative, since they merely follow the narrator’s directions, as shown so far, this identification of readers and characters is evident at times. For instance, some field reports attempt to orient and guide the readers in physical space, pointing to specific directions, while also referring to specific streets of the city. Some of the most characteristic examples of this immersive strategy are the field reports “At Play” and “Tuesday” in Chicago as well as “Crystal” and “Ledge” in New York City. In “At Play” and “Ledge” both narrators appear to take the silent children by their hand and head towards a specific direction: in the former, they “walk *north on Mildred straight* to the hospital” (“At Play”; emphasis added), while in the latter, they “start walking *east down 41st* into this weird, non-place,” which leads them “to that one street that leads people off of the tunnel” (“Ledge”; emphasis added). In a similar vein, the narrators in “Tuesday” and “Crystal” also describe their own route in the urban space, referring to specific street names:

By that park, *down on Marshfield*, I sat on a curb and was drawing in the dirt in the grass with my hand [...]. And then I *headed towards North*. (“Tuesday”; emphasis added)

East on Grand past the fish markets, then *south on Bowery*. (“Crystal”; emphasis added)

Although the above narratives do not address the readers directly, they obliquely urge them to follow a specific route, while performing at the same time the narrators' actions and movements in physical space. This is a technique evident in print fiction as well, as Ryan attests, where "[t]he sense of place is created dynamically by a narration focalized through the character who is being followed" (*Narrative as VR* 2 88). In print fiction, actually, it is through language and verbal descriptions that a sense of reality and place is created, something that was evident through the examination of Gibson's print novels in the previous chapter. What I intend to prove in this chapter is that, in order to be effective, locative narratives need to take into account not only these print-centric practices, but also combine them with the affordances of the locative medium. In fact, as is revealed in the above cases, locative narratives can create a sense of place by requesting readers to follow a character's route in physical space. By mentally following the character's movements, the readers discover the places mentioned in each one of the narratives,⁹² namely the hospital in "At Play," the tunnel in "Ledge," the park in "Tuesday," and "the fish markets" in "Crystal." In this manner the readers engage in a process of co-witnessing the physical world along with the narrators of the field reports. Ultimately, this kind of co-witnessing enhances the readers' understanding of the events that take place in the fictional world of the narratives; that is, the narratives create the impression that the narrator's experiences with the silent children actually took place in the location where the readers are located while reading these narratives.

Another striking example of role-play and co-witnessing is the field report entitled "Too Loud" which is located at Fullerton train station in Chicago. This narrative includes orientation strategies with no reference to street names, merely describing the characters' route in physical space:

⁹² It could be argued that when the readers do this, they experience "magic moments," to use Reid et al.'s terms once again, because they identify elements from the fictional world in the real world, as shown earlier.

I walked passed [*sic*] the soccer field and saw that there was a boys' practice going on. As I walked down the sidewalk, a train passed by halting to a stop. I could see the crowd filing one by one in a rush to go through their daily lives.

Walking underneath the tracks, I saw homeless people in their carts. [...] Another train rushed passed the Fullerton stop.

I could hear the coach screaming plays at the girls as they ran their drills. It had rained the night before so there was water dripping down from the tracks as I continued to walk. [...]

It is almost impossible to hear your own thoughts walking underneath the tracks.

[...] Students coming back from the student center with food and talking about the finals they have left. ("Too Loud")

In this narrative, the narrator's spatial movement, perception, and perspective are revealed through the use of spatial vocabulary — "I walked past the soccer field," "As I walked down the sidewalk," "Walking underneath the tracks" — as well as through verbs that describe senses, such as "see" and "hear" in the phrases "saw that there was a boys' practice going on," "I could see the crowd," "I saw homeless people," "I could hear the coach screaming," "It is almost impossible to hear your own thoughts." The repetition of the verbs "walk," "see," and "hear" underscores the performative aspect of the text, which invites the readers of the narrative to engage with the environment by once again performing the narrator's actions as well, that is to walk, see, and hear things in physical space. Nevertheless, "Too Loud" does not even indirectly relate to the main narrative of the novel. Instead of "expand[ing] and/or deepen[ing] our experience of the silents," as is evident in the Field Report Guidelines, "Too Loud" contains no reference to the silents at all, but it merely projects the narrator's musings about his surroundings. Although this very fact could be considered as a disruption of the immersion into

the fictional world of *The Silent History*, the readers are here confronted with an interesting vignette that prompts them to explore and co-witness the physical space around them.

In line with the above examples from locative narratives of the third level of experientiality, the readers are invited to identify with the narrator by imagining what happened to him/her at a specific time and place in the re-creation of the storyworld. This being the case, immersion in these narratives can be viewed as a form of what Ryan describes as a “mental simulation” (*Narrative as VR* 2 78), since the readers are invited to emulate or perform, as mentioned earlier, the character’s actions. Ryan writes that “[i]n contrast to static representations, the mental picturing of moving bodies involves an embodied simulation, through which the reader identifies with the agent rather than contemplating the moving body from a distant perspective” (82). Therefore, the narratives effectively link place with narrative by merely describing the narrator’s movement in physical space without necessarily giving instructions to the readers through verbal pointing and the use of imperative demonstratives and pronouns, as is the case in the field reports of lower experiential value.

Other field reports belonging to the third level of experientiality invite readers to immerse themselves aurally in the urban space by listening to the sounds in their surroundings. For instance, the field report entitled “Maple” invites readers to immerse themselves in the urban soundscape in Morningside Park in New York City, again by identifying with the narrator: “When it was warm, we could hear insects scuttling on the stone below us, and bunches of leaves brushing together above us. The whirring church bells, air conditioners and cars behind us always stirred us into a different kind of silence.” It is language again, and specifically, the use of imagery and description, evident in phrases like “insects scuttling on the stone,” “bunches of leaves,” and “church bells, air conditioners and cars,” that alerts readers here to draw their attention to particular objects and details in the physical environment. In another field report, entitled “AC,” the readers are also invited to read the text on the screen,

while being requested to observe objects in the urban space on the basis of the urban soundscape provided. However, the narrator here uses the second-person pronoun to encourage the readers to experience the urban soundscape as well: “There’s more than enough sound. Tunnel traffic. Helicopters. Sirens. If you listen really hard you can hear the fire escapes — that series of multicolored slants, at certain hours of the day I swear you can hear it hum” (“AC”). At the same time, the narrative draws attention to an AC unit that can be seen “across the street, in [a] brown corner building on the east side of Greene,” and whose “white noise” needs to be ignored so that “the sounds of the world” can be heard. On the basis of the above, the readers are invited to experience these field reports not only by reading the text on their screens, but also by listening to the surrounding sounds, which creates a multi-sensory experience.

Elaborating on this effect, one can notice that the narrative experience offered by the last three field reports, “Too Loud,” “Maple,” and “AC,” reminds one of Raley’s argument about the shift in the concept of “reading” when it comes to experiencing locative narratives (“Walk” 301). Raley associates locative reading with performing because locative texts “require physical exertion, particularly [...] bodily engagement” (301). It is for this reason that she prefers to use the term “participants” instead of “readers” (301). This being so, locative reading means participating in the narrative, as it also “involves seeing, moving, listening, touching,” which for Raley “is also understandable as performance” (303). In a similar sense, Maria Engberg and Jay David Bolter describe “a polyaesthetic combination of reading, listening, moving and interacting” with the environment (187), which is adjacent to Raley’s understanding of reading locative narratives. With these in mind, one could argue that the narrative in the afore-mentioned field reports engages the readers into polyaesthetic reading: the readers read the text on their mobile screens in the conventional sense, performing at the same time actions while moving in physical space and activating their other senses, those of

seeing and listening. This kind of reading leads to greater immersion, but also to more active participation, in the narrative experience, since the readers resort to more than one senses to connect with their surroundings while moving in space. This creates a synesthetic effect that augments the narratives' experiential value.

This being the case, it is worth noticing that immersion in the fictional and physical world of these field reports is achieved through the process of reflection, that is the identification of the similarities (and differences) between the fictional world — what the readers read on the mobile screen — and the physical world — what they see (or hear) in their surroundings. As Farman claims, immersion in locative stories is achieved “not only through a compelling narrative, but also through the materiality of the story and the physical presence of a location” (Farman, “Contested Landscapes” 197). In a similar vein, Anders Sundnes Løvlie also confirms this kind of immersion by claiming that experiencing such texts in a locative medium “may be enriching to the reader, allowing her to see a new dimension beyond the already visible qualities of the place, and perhaps help her more fully understand the text” (170). I agree with both Farman and Løvlie that in locative texts, as I have already shown, the materiality of the place grants greater immersion in the physical space to which the text refers, a fact that may also help readers comprehend the fictional story more easily and quickly by juxtaposing the two worlds — fictional and physical. In other words, this kind of juxtaposition of the two worlds, or co-witnessing of physical space, seems to enhance immersion in the fictional world of the narrative by helping readers to better contextualize the events in the narrative. As the Field Report Guidelines also confirm, the “written narrative” and the location “support and amplify each other to deepen the authenticity of the incident being described.”

Paradoxically, however, I argue that it is this very process of reflection that deprives these narratives of their immersivity. Although all the above-mentioned techniques do provide greater immersion in physical space, as already shown, these locative texts indubitably retain

the sedentary aspect of print-centric reading practices, thus increasing the risk of immersing their readers in the fictional world only. This is not only due to their being primarily textual, like the Testimonials, but also mainly because their “narrative [world] [i]s spatially contained and isolated from the real world,” to use Greenspan’s terms again when describing the inadequacies of locative narratives. Greenspan defines the ideal locative narrative as that which guarantees the kind of fictional transportation that is evident in print-centric narratives without isolating readers from the real world though. However, it could be argued that, so far, fictional transportation, or in other words, immersion in the fictional world of the field report narratives in *The Silent History*, is achieved at the expense of immersion in the real world. Despite the performative character and the experientiality of the field reports, readers can potentially be isolated from the physical world, as Greenspan would argue.

Although in the field reports that have been analyzed so far in this chapter the various locations that are described actually become “part of the narrative,” which “include[s] subtle cues helping readers properly orient themselves,” as is mentioned in the guidelines, I contend that the locations do not really become part of the narrative, but they merely embellish the narrative experience. This is because the comprehension of the narrative does not necessarily depend on the readers’ presence at the location to which the narrative is attached, even though locative technology requires readers to read the narrative on site. Even when the narrative contains spatial deictics and/or adverbs of place, directly addressing and orienting the readers, off-site reading does not render the narrative incomprehensible. This is because the narratives are highly descriptive of their readers’ surroundings to the extent that even when readers are not situated at that specific location, they can still follow the story events. For instance, “notic[ing] the corkscrew branch” in “Lines,” does not obstruct narrative comprehension because it does not alter the readers’ understanding of the story that is narrated. The same applies to the swings in “Wendt Park,” the bench in “Tether,” the painting in “Entertainment”

as well as the plaque and the park in “Tuesday,” but also to the hospital in “At Play,” the tunnel in “Ledge,” and “the fish markets” in “Crystal.” This is a direct effect of the kind of reflection that was described above: what the readers can see in physical space directly corresponds to what is described in the narrative. In fact, the objects described in the narrative which can also be found in the physical space could have been located anywhere in the world.⁹³ The narratives perfectly describe the setting, offering enough clues so that in case these narratives were not locative, off-site readers could still see the narrative’s setting in their mind’s eye. For example, even when readers are not situated at the location where the field report entitled “Recess” is attached, they can still understand that the phrase “right there” points to a wall on which the image of a cat has been drawn, as the narrative itself explicitly refers to this specific wall and cat drawing. The same goes for the readers of “Too Loud,” who do not have to be at the same place where the soccer field and the train tracks that appear in the narrative are located.

Therefore, the field reports analyzed so far can “plausibly be read and enjoyed in any random location,” thus “not sufficiently utilizing the actual *experience* of the setting” (Field Report Guidelines; emphasis in the original). In these cases, despite the fact that location-awareness can possibly lead to greater spatial immersion, this appears to be an obfuscation because if the field reports could be read anywhere, still there would be no change in their meaning. Ultimately, these field reports do not manage to significantly depart from the sedentary reading practices that are associated with printed texts and e-books, as the readers’ movement to these locations may eventually be rendered redundant.⁹⁴ According to the Field Report Guidelines, these field reports ought not be considered “successful” because they do

⁹³ While analyzing one of the locative narratives featuring in the locative project entitled [*murmur*], Ryan et al. write that “[i]t could just as well have been told in a studio for a remote audience or be part of a written story” (131). This point can also be applied to *The Silent History* as well with emphasis placed on the fact that location information is considered redundant, as I am about to show further down in my analysis.

⁹⁴ Ryan et al. write: “In order to establish a strong sense of place, truly location-specific texts sacrifice the mobility that written texts have enjoyed, at least since the invention of print, by letting themselves be downloaded and read or heard only in the *presence* of their referent” (136). However, this is subverted in certain field reports in *The Silent History*, as I have shown.

not “[earn] the reader’s trip to the location.”⁹⁵ In relation to this, J. Ritchie writes that “[t]he [locative] narrative must offer a reward perceived to be greater than the effort required of the audience” (58). In other words, the locative narratives need to compensate for the readers’ effort to visit and interact with the location to which these narratives are attached, which is not the case in the above-mentioned field reports, as already shown. Simply standing at the specific location where the events being described in these narratives have taken place does add experiential value to the text, as Farman correctly observes (“Site-Specificity” 7), although this is not a strong motive for readers to travel to a location in order to experience the narratives.

How can then locative texts offer the audiences stronger motives to experience them? Or, to use J. Ritchie’s phrasing once again, how can it be guaranteed that “the value offered by the mobile locative work exceeds the threshold of ‘really nontrivial effort’ necessary to enact the work, [so that] the audience will be willing to expend those efforts necessary to navigate the storyworld and come to identify and understand the story itself” (58)?⁹⁶ In relation to this, Ryan et al. insinuate that locative texts in which “[t]he narration does not use any kind of verbal pointing [...] d[o] not [fully] exploit the particular resources made available by [the] spatial situation” (131).⁹⁷ While the field reports explored so far manage to “exploit [these] resources”

⁹⁵ Interestingly, these field reports can be regarded as an equivalent to what Løvlie describes as “placetexts.” In Løvlie’s “textopia,” placetexts are locative “texts [that] could certainly have been written for a different medium,” without “necessarily depend[ing] on a locative system to be effective” (169-70), as is exactly the case with the field reports in *The Silent History* explored so far.

⁹⁶ Also relying on Ritchie’s views, Farman insists that designers of locative storytelling projects “must understand that location is a primary component of their project’s content,” and the effort and the (travel) costs that these projects require in order to be experienced “must be seen as worth it for the payoff of the journey and narrative” (“Contested Landscapes” 196, 197). Farman proposes techniques that are likely to “encourage[e] participants to travel through space to a new location to experience a [location-based] story,” such as the incorporation of episodic structure to the story, game mechanics, and tasks (197). By resorting to the experiential value of locative texts as well as using *The Silent History*, *Times Beach* and *Fens* as case studies, in this chapter I am referring to similar techniques in an effort to examine the extent to which participant motivation and engagement in the locative narrative experience is retained. Finally, it is interesting to note Farman’s observation that “[p]rojects that showcase narratives as islands, with no links between stops or locations, encourage a stop-and-go participant, with little motivation to move on to individual stories” (197). Although this is also the case in the field reports of *The Silent History*, as they do not connect with each other, I am examining the ways in which the narratives motivate readers to experience them actively. For more information on participant motivation and engagement in the locative narrative experience, see Farman’s “Mobile Media Stories and the Process of Designing Contested Landscapes,” pp. 193-198.

⁹⁷ See footnote no.87.

by using verbal pointing, there are field reports in *The Silent History* that, contrary to what Ryan et al. claim, do also “exploit the [spatial] resources,” despite their lack of verbal pointing (131). I would claim that it is this very lack that increases the locative narrative’s experiential value. It is when field reports do take advantage of the affordances of location-awareness in a more insightful and profound manner that *The Silent History* genuinely departs from sedentary reading practices. This is what the field reports belonging to the last level of experientiality achieve, as I will attempt to prove. The answer I would thus give to the above-asked question is that the higher the experiential value of a locative narrative is, the greater the readers’ immersion is in both the fictional and the physical world, and thus the greater the rewards readers receive from experiencing the locative narrative are.

A characteristic example of a highly experiential field report in *The Silent History* is “Ducks,” which is located in SoHo, New York City. The narrative presents an event taking place in a bookstore located at Crosby Street, where an author reads excerpts from his book in front of the crowd. The readers are introduced to the event from the very beginning, although the narrative does not mention or indicate where exactly the event is happening, leaving it for the readers to discover: “None of the staff, including me, had expected such a turnout—a half an hour before the event was supposed to start, people had already crowded onto the curving staircases” (“Ducks”). Evidently, unlike the previous field reports, this one does not help the readers situate themselves in the space where the fictional events are happening, as no verbal pointing is utilized in the narrative to guide and orient the readers in physical space. The readers who travel to the location where “Ducks” is attached cannot immediately connect text with place, as the only spatial element offered here is “the curving staircases,” which are not even visible in the immediate physical space where the readers are situated. This invisibility renders the process of reflection more difficult here, since it creates a disorienting effect, making readers feel that they cannot match what they read on the mobile screen with the elements in

the physical environment. Even readers who may take for granted that the fictional setting directly corresponds to the physical space in which they are located, as is the case in other field reports, are disillusioned upon realizing that this is not the case here. For those readers, the act of reading may transform into an overwhelming experience, thereby producing an effect of confusion and frustration resulting from the readers' sensation of spatial boundlessness and disorientation due to their inability to find the staircases immediately.⁹⁸ This could also be described as what Emma Louise Whittaker terms "*multi-stability*" when she refers to this kind of "[o]ntological ambiguity [that] may result when perceptual cues are not readily attributable to the existent place or the fictional world of the story" because it involves "*experientially unsettling the ontological status of what the participant takes to be 'real', represented or imagined*" (137, 311; emphasis in the original). Indeed, the readers, at least temporarily, cannot determine whether the stairs belong only to the fictional or to the physical world, which creates an effect of multi-stability. It will take readers a while to realize that the staircases are not part of the external environment, but they can be found in the bookstore on this very street. This bookstore can also be located at the spot where the pin is placed in the virtual map of the app on the mobile screen, despite the fact that the Field Report Guidelines warn that "[t]he pin placement within the app is not always perfectly precise."⁹⁹ However, it needs to be mentioned that it is only towards the end of the narrative that readers are given enough clues to understand that the narrative action is happening in the bookstore, when they are informed that "the author ambled over to the table in front, where he signed at least 150 books" ("Ducks"). In other words, the readers realize that the physical world eventually does reflect, to use Greenspan's

⁹⁸ This proves that "[l]ocative narrative can be interrogated as a site where the fallibility of perception becomes evident" (Whittaker 215).

⁹⁹ It is important to note that this spatial ambiguity and indeterminacy that is evident in locative works as well as the precision of the GPS has been commented on by Teri Rueb in her lecture "Performing Place: The Expanded Field of GPS." While Rueb does not refer to its immersive effects, I refer to it here as an effective immersive strategy used by the authors of the field reports in *The Silent History*.

terms, the fictional, when, upon entering the bookstore, they are finally able to identify both the staircases and the table with the books mentioned in the narrative.

However, it needs to be stated at this point that what constitutes an effective immersive strategy in *The Silent History* has been regarded as a drawback in the discussion of other locative projects. For example, making too difficult to locate the clues in real space may have the opposite effect, that is de-immerses readers from the experience. Whittaker, in particular, writes that this may have a discouraging effect on the participants. On referring to another locative project designed by herself, she notices that at some point “[t]he lack of a visible correlate and contradiction with the scene depicted, diminished engagement for other participants, who reported they found it difficult to imagine what was not directly visible, or switch between using the stimulus of the painting to another mode of engagement” (225).¹⁰⁰ Even Greenspan, in relation to the reflective quality of locative narratives as commented on earlier, writes that in StoryTrek, “[q]ualitative user tests reveal that when the represented space of the textual world corresponds closely to the actual spatial environment of the text, it sometimes functions as a welcome navigational aid that encourages narrative immersion and conventional transportation, while at other times proving highly disorienting and disruptive to the immersive experience.” Although both could happen in these field reports of *The Silent History*, I examine the first scenario. That is to say, although there is the possibility that the readers of the field reports will be de-immersed from the narrative experience, I am here examining the case in which the readers choose to actively engage in the narrative experience.

The same effect of spatial indeterminacy experienced by the readers earlier in “Ducks” is created in the field reports “Private” and “Chess” that are located in New York City. Like

¹⁰⁰ Josephine Reid and Erik Geelhoed also observe, on referring to another locative project, that “[t]he dominance of the visual sense and the lack of visible structures that related to the experience in the open square stopped some people from getting immersed” (1735). While commenting on another locative project, Valentina Nisi et al. also state that “[o]ne of the main issues reported across the three users groups was the fact that the link between the narrated events and the physical story site was not always clear.”

“Ducks,” these narratives do not provide any (or at least provide only a few) elements to orient readers in physical space, allowing them to freely explore their surroundings in an attempt to discover and identify the elements described in the narrative. Specifically, the readers of the field report “Private” have a difficulty in finding the obstetrician to whom the narrator refers: “We already have cause to believe that Lola will be a silent, given our age and our neighborhood [...] so we go to our obstetrician to see if there’s any kind of screening we can do.” The narrative does not include any guidance to orient the readers who need to search in physical space in order to locate the obstetrician, thus relying on their own observation skills. It is only when they notice the sign on one of the windows in a residential building near Gramercy Park in New York City that they guess this is where the obstetrician might be. The field report “Chess” appears to generate a similar effect. The narrator in “Chess” is presented to be playing a game of chess with a silent child in Bryant Park in New York City: “I like to sit and wait for a game. I rent the chess board and set it up.” What is not even explicitly mentioned in the narrative though is that the space where action happens in the narrative is a game area with chess boards, which is a separate section of the park and is hardly discernible with the readers not having been given any instructions for its location; rather, they have to discover it themselves. In addition, even when the narrative contains spatial information and verbal pointing, it remains unclear where exactly the narrative intends to draw the readers’ attention in the physical space, as is the case in the phrase “The sun pours into this gap in the buildings” (“Chess”). While the narrator uses the word “this” to guide the readers in physical space, the whereabouts of the “gap” remain vague and indeterminate, since what the readers see is very subjective, depending on their perspective and their location in physical space, as this could be any gap in any building around the park. The difference from the field reports of lower experiential value lies in the fact that here the narrative is rendered more personalized,

as each reader can interpret this “gap” depending on the time of day and the exact building on which the sun pours each time (in case of course they access this narrative on a sunny day).¹⁰¹

There are even highly experiential field reports where the narrative, as one discovers in the field report guidelines as well, intends to reveal “all the overlooked treasures of [the readers’] daily surroundings” by “bring[ng] [them] to an unexplored corner of [the] city.” A striking example of this is the field report entitled “Found.” This report has taken its title from the Grand Central Lost and Found office in New York City, but it serves also as an encouragement for the readers to find this office, which is not discernible whatsoever: “Today I saw an actress, [...] in the Grand Central Lost and Found office. But I bet you didn’t even know there’s a Lost and Found at Grand Central. It doesn’t matter what I lost. I like it in there. It’s quiet” (“Found”). The readers who are interested in finding the office engage into an exploration of the Central Station in search of this quiet place where the events in the narrative take place.

Interestingly, in all the above cases, the narratives encourage “the exploration of place and locality,” as all “experimental narrative[s] with a mobile and locative component” do, according to Raley (“Walk” 302). However, in contrast to the field reports of lower experiential value explored earlier in the chapter, these highly experiential narratives — “Ducks,” “Private,” “Chess,” and “Found” — encourage the readers to discover the elements that are described in the fictional world by actually moving in the physical space instead of merely requiring readers to observe them by standing at a specific location; nor do the narratives merely describe what it is that the readers will discover if they follow a specific route in physical space. In this sense, the readers do not merely look at their surroundings, but they become active explorers or investigators who navigate physical space, searching for clues that the narrative might offer.

¹⁰¹ This could be interpreted as another instance of multi-stability, since, following Whittaker, it creates an effect of “perceptual ambiguity,” which is a characteristic effect of locative narratives (33).

As Whittaker writes about another locative project, “[d]escription is minimal [in order] to prompt the ‘filling-in’ of the details” by the readers (220-21), which is also evident here. Essentially, it is when the locative narratives do not provide all these clues, or rather do not fully describe everything there exists in the environment, while also reading the narrative, that the readers are further immersed in the fictional and the physical space, despite the spatial disorientation they may initially experience.

This being the case, the act of reading can be compared to a kind of puzzle solving, which is different from the way it is used in the chapter on *Ingress* where the readers use the clues given to them in order to form a comprehensible whole, as will be shown. Here, the readers are required to use the clues offered in the narrative on their mobile screen, “combining” them, as the field report guidelines reveal, with “their own physical senses to gain a deeper understanding” of both the fictional and the physical world, which is exactly what offers them a higher experiential value than the previous field reports. Thus, the readers are invited to engage into a “free, voluntary, exploration of the [physical] space,” something that leads to “*serendipitous* encounters” with those elements in the fictional world that are reflected in physical space (Karapanos et al. 279; emphasis added).¹⁰² Therefore, in these field reports, immersion in both the physical and the fictional world is achieved through the readers’ active participation in the narrative experience, in other words, in the kind of polyaesthetic reading described earlier.

However, one could argue that even these highly experiential locative narratives still promote sedentary reading because they can be made comprehensible even when readers do not experience them on-site. In other words, in these narratives immersion in the fictional world is still independent of the immersion in the physical world. It could be claimed, for example,

¹⁰² Evangelos Karapanos et al. write that one of the “assumption[s] underlying the design of location-aware narratives is that the free, voluntary, exploration of the space and the order in which one may encounter different location-aware narratives increases the chance of serendipitous encounters” (278-79). This is also evident in *The Silent History*, as shown.

that the readers are not offered enough motivation to locate the staircases or the chessboard in “Ducks” and “Chess” respectively, because locating those elements does not constitute a prerequisite to continue reading the story. Not all readers will choose to engage in the discovery of the elements in physical space that are described in the narrative, choosing instead to read the story in situ by being immobile or without even looking at their surroundings. Indeed, according to Greenspan, empirical research has shown that “not everyone wants to be forced to perform their own stories.” Therefore, in the locative narratives of *The Silent History*, immersion in both the fictional and the physical world is not always guaranteed, as proven so far, but it depends on how the user chooses to experience the narratives — either by simultaneously exploring physical space or simply ignoring it. All these realizations may lead one to the conclusion that the authors of *The Silent History* have failed to fulfill their purpose to rejuvenate e-book technology through their novel in that they have produced and included¹⁰³ locative narratives in which engaging with location remains redundant, thus still promoting the sedentary reading practices that characterize e-book technology.

This is also reinforced by the fact that, contrary to what happens in dynamic narratives such as StoryTreks, readers of the field reports of *The Silent History* cannot “shape narrative content” (Fan 17). Lai-Tze Fan is another critic who, in her article “Writing While Wandering: Material and Spatial Contingency in Locative Media Narratives,” theorizes about Greenspan’s StoryTrek, developing also “a narratological framework of dynamic narratives,” of which StoryTrek constitutes a prime example (17). What Fan’s model of dynamic narrativity proposes is that readers of locative narratives actually “shape narrative content” by “occup[ying] a space

¹⁰³ *The Silent History* encourages readers’ participation in the process of writing the novel, given that the field reports have been written by the readers of *The Silent History*, while some of them have been written by the authors of the main narrative.

with which they must interact in order to manifest the locative media narrative” (17).¹⁰⁴ For example, in StoryTreks, immersion in both the fictional and the physical world is achieved due to the high “degree of [the readers’] agency in controlling how the story proceeds” (Khaled et al. 129). Agency is the third quality of locative reading, Khaled et al. suggest in relation to StoryTrek, with the other two being role-play and reflection, as already mentioned. Agency describes the readers’ “ability to form intentions, take action, and interpret responses to an experience” (Khaled et al. 129). Fan asserts that StoryTrek “utilizes [readers’] agency to create contingent paths and also contingent meaning” (16). My aim, however, is not to compare any specific StoryTrek-generated story to the locative texts to be analyzed here, but to place emphasis on the ways in which StoryTrek as a locative-authoring tool promotes dynamic locative storytelling strategies that challenge the sedentary print-centric reading practices. In fact, it is the readers’ ability to “us[e] phenomenal data about the world around them to help fill the ‘gaps’ in the fictional world” (Greenspan) that characterizes what Fan terms a “dynamic narrative.” Therefore, while in locative narratives the fictional world of the digital narrative that can be read on the mobile screen directly relates to the material space that is “made aware to [the readers] through their reading experience,” as is the case in the field reports, “locative media narrative platforms such as StoryTrek,” as Fan also notices, “throw a wrench in the notion that digital writing is necessarily parameterized by composing narratives through content that is requested and retrieved in real time” (17). For Greenspan, StoryTrek is a striking example of “how real-world factors might well produce an enhanced form of transportation that allows readers to keep one foot in the real world.” It is in this manner that StoryTrek balances the tension between immersion in the fictional world of locative narratives and immersion in the physical world.

¹⁰⁴ As Greenspan further explains, the readers’ active participation in shaping the narrative experience is evident in the fact that “the StoryTrek authorware enables the creation of spatial stories that respond in real time to the vector of the user’s physical movement and ever-changing geospatial context, providing narrative patterns matched on-the-fly to the user’s location, route and style of navigation.”

Despite all the above observations, I would argue that the very fact that readers are given the alternative to actually shape, or better, perform narrative (embodied) action by moving in physical space,¹⁰⁵ as already argued, does compensate for the above-mentioned inadequacy. Although the highly experiential field reports cannot themselves be regarded as dynamic narratives on the basis of Greenspan's and Fan's frame of thinking, their value lies in the dynamic kind of reading in which they engage their readers. In fact, the novel complies with Eaket's definition of dynamic interaction with place through performativity. Eaket argues that "[t]he ability of the body to perceive, process and act on information in its environment allows us to form dynamic feedback loops with tools and environments." That is, although readers of the highly experiential field reports do not literally write the locative narrative, they also "fill in the gaps" in the narrative by actively participating in its enactment (Eaket), thus altering the narrative experience. This being the case, it is in this manner that *The Silent History* eventually subverts the sedentary, print-centric reading practices of e-book technology. As Farman also aptly comments, "[t]he content of a site-specific storytelling project is not only the medium used to tell the story, but also the location and the journey to that location" ("Contested Landscapes" 196). For this reason, "[i]gnoring the specific affordances and constraints of a device is to imagine that content is not deeply affected by the medium through which is conveyed," and as a result, "[i]f place is removed from a project, then the project

¹⁰⁵ The spatial practices involved in locative narratives echo Michel de Certeau's idea in his work *The Practice of Everyday Life* (1984) that "[t]he act of walking [...] is a spatial acting-out of the place" (97-98), something that was commented on in Chapter One in the discussion of *Spook Country*. De Certeau focuses on psychoanalysis and philosophy, which is not the aim of the present project; rather, what is of interest here is the reading practices that emerge from the readers' embodied interaction with physical space and the locative text. Other scholars have commented specifically on de Certeau's idea that "the act of walking is to the urban space what the speech act is to language" (97). For example, Ryan et al. interpret this statement as follows: "Just as the speaker of a language creates ever new utterances by applying the rules of grammar, the user of a city creates unique itineraries, full of detours and shortcuts, through the urban grid" (125). Relating de Certeau to locative narratives, Lai-Tze Fan also writes: "As the act of walking also becomes the story that is told of a space, a walker is comparable to a user of locative media narratives, where the pedestrian speech acts of a user etch out the city's texturology, and a user's 'story' exists not merely as a product of the locative media narrative but as an inscription that is singular, necessarily tied to the material, and contingent upon a walker's choices" (11).

begins to deviate from its goals as a mobile platform for storytelling” (Farman 196).¹⁰⁶ Thus, the tension that Greenspan attempts to reconcile with StoryTrek is also balanced in the field reports of *The Silent History*, albeit in a different way from StoryTrek. The field reports of higher experiential value combine print-centric reading strategies and embodied interaction with text and place because they are less likely to isolate the readers from the real world, since the readers are given by the authors the opportunity to actively participate in the narrative experience with all their senses and body; at the same time, the field reports also achieve the desired fictional transportation that conventional print-centric narratives do, by allowing the readers to merely read the locative narratives as if reading a page on an e-book in the conventional sense. On the basis of my analysis, my suggestion is that the higher the experiential value a locative narrative possesses, the more active the readers’ participation in altering/shaping the narrative experience by resorting to their own bodies and senses is likely to be, despite the initial confusion this narrative experience may generate to them, and thus the farther away the locative narrative departs from sedentary print-based reading practices pertaining to the e-book.

Similarly to the *Ingress* narratives in the following chapter, these field reports can also be considered a form of ergodic literature, to use Aarseth’s terminology. According to Aarseth, a text can be regarded as ergodic when “nontrivial effort is required to allow the reader[s] to traverse [it]” (*Cybertext* 1). J. Ritchie uses Aarseth’s theory to talk about locative narratives, which require “*really* nontrivial effort” (57; emphasis added). As a result of this kind of ergodicity, J. Ritchie regards readers as coauthors of locative narrative, arguing that “[t]hese works require that audiences navigate across digital and physical spaces, attempt to identify in

¹⁰⁶ Whittaker even views “*locative narrative[s] as atmospheric*,” claiming that they “don’t aim to detach or transport the reader[s] from their current situation, instead they fashion it, thematically, historically, atmospherically, or perceptually; directing modes of engagement and framing interpretation” (137, 136; emphasis in the original). I also fully agree with Whittaker that “it is *the authorial intention to*” engage the readers into active participation in the narrative experience the reason why locative narratives “challenge [...] the form of the printed novel” (136; emphasis in the original).

these spaces the elements relevant to the story (and ignore elements outside the story), to understand these narrative elements, and through their actions and decisions, to co-author a narrative” (65). Hight also shares the view of considering the readers to be the “ultimate author[s]” of locative narratives through “their movement” in physical space (“Locative Narrative” 322), echoing also Michel De Certeau’s concept of writing the urban space. Locative narratives are “experientially driven literally and figuratively as a person moves through a space on Earth,” as Hight contends (322), in the sense that it is not only that the narratives appear as a result of the readers moving at a specific location, but they are also realized by being enacted in the physical space.

Importantly, though, *The Silent History* seems to also reconcile the afore-mentioned tension by promoting this kind of dynamic and experiential or polyaesthetic reading, which involves the readers’ embodied interaction with space, through its plot and main theme. First of all, this kind of reading is *thematized* in the field reports of *The Silent History*. In the field report entitled “Lines,” the narrator realizes how the silents interpret the world by observing a silent boy in Madison Park, New York City, having “on his knees a huge sketchbook, and on the sketchbook every line of the Metropolitan Life building and the clock tower.” By resorting to film theory, Michalis Kokonis emphasizes how spatial perception derives from the human body. He argues that the different kinds of lines that are evident in film frames affect “the spectator’s perception within the film frame” (“Spectator’s Reality” 1119). Depending, for example, on whether “emphasis is given to horizontal” or vertical lines in a film frame, different kinds of feelings are generated to the spectators (1119). Although Kokonis discusses cognitive film semiotics and filmic space, this frame of thinking could be applied to the ways the silent boy perceives the world in “Lines.” In the same way that film spectators perceive film reality on the basis of the lines in the film frame, as Kokonis notices, the silents also perceive the world according to the lines that they view in their field of vision, which also

creates different meanings for them. Indeed, as the title of this narrative implies, which is also what the narrator suggests, lines in physical space help the silents formulate thought patterns, even in non-verbal form in their effort to perceive what talkers in the narrative — people who can understand language — refer to as “tense or mood or names” (“Lines”). Kokonis argues that all this can be explained by the fact that “we perceive objects in our environment in relation to our body,” and “we use the human body as the limit between internal and external space” (1112).¹⁰⁷ The narrator in “Lines” calls this “spatial delimitation,” which is “the organizational apex” of how the silents perceive and make sense of the physical world, as the narrative reveals. Thus, the narrative implies that the silents interpret the physical space according to how objects are positioned in physical space in relation to their body, which is also similar to the notion of “proprioception,” which I will discuss further down.

Similarly, in the field reports entitled “Found and “AC,” already analyzed, the spatial practices in which readers of locative narratives engage while experiencing these narratives are also thematized by being reflected in the way the silents perceive and interpret the world, that is to say through interacting with the environment by seeing and hearing. The idea that the silents essentially depend on their body, senses, and environmental stimuli in order to perceive the world is emphasized in “Found,” where the silent girl manages to find her mother’s shoes due to her heightened senses, since, as the narrator eventually “realizes[,] [...] [the girl] wasn’t bored so much as focused on something no one else could see or hear.” Moreover, “AC” invites the readers to engage and interact with physical space in a way that corresponds to the silents’ behavior. To be more specific, this field report presents a couple who “wanted [their son] to be silent,” ironically calling him Silas, a name that connotes his silence. In fact, “the lesson [the parents are] trying to learn as [they] teach ‘Silas’” is that “[i]t’s better in general to just stand

¹⁰⁷ Interestingly, Rueb in her lecture “Performing Place: The Expanded Field of GPS” implies that all the practices concerning spatial perception and the embodied interaction with space date back to theories of phenomenology by Maurice Merleau-Ponty. These theories, however, do not constitute the subject of the present project.

still and listen and otherwise keep quiet,” while they also admit that they “[a]re training him to shush the sound in his head, so he has space to hear the sounds of the world,” which is what the silents also do, “listening intently,” as the narrator reveals. The silents then rely on their senses as well as their observation and listening skills, which is exactly what the readers are encouraged to do in order to experience and immerse themselves in the narrative, as shown in the analysis of this field report earlier in this section.

The embodied ways in which the readers of the field reports experience these locative narratives reflect the embodied ways in which the silents perceive external reality in the main narrative of the novel as well due to their inability to process verbal language, which is what the readers of the field reports are also invited to do. Calvin Anderson, the first silent in the novel who was implanted in order to be able to speak, reminisces the time when silents could “fully appreciate the glory of the night sky without knowing the names of the constellations” as well as “enjoy the warmth of the sun without labeling its source” (*The Silent History* 18.2).¹⁰⁸ This echoes Kokonis’ observation “that reasoning depends on images, not words, and perception precedes language” (“Spectator’s Reality” 1123);¹⁰⁹ it also echoes Whittaker’s claims when discussing about locative narratives, following William James’s theories, that “experience is prior to language [...] because ‘experience’ describes awareness of the happening of events” (231, 232). Indeed, Calvin’s words demonstrate that language is not a prerequisite for humans to perceive external reality, since environmental stimuli alone, on which the silents essentially rely, serves as a way of knowing and perceiving the world. Another character, Kenule Mitee, also verifies that he and his silent wife, Isoke, “communicate with [their] bodies” (*The Silent History* 14.2), while Spencer’s son, Slash, also resorts to bodily movements in order to communicate his message to the rest of the silents towards the end of

¹⁰⁸ Since the electronic version of the novel does not include pages, I will be using the chapter numbers instead.

¹⁰⁹ Michalis Kokonis resorts to this observation on the basis of “the kinesthetic image-schemata of [Mark] Lakoff’s and [George] Johnson’s cognitive models” (“Spectator’s Reality” 1123). The application of these theories to *The Silent History* moves beyond the scope of the current dissertation.

the novel: “Up on his platform the boy seemed to wobble[.] [...] He half-smiled and opened his eyes and began swaying back and forth, back and forth” (22.3). Moreover, the silents develop a kind of non-verbal communication based on facial micro-expressions, which is also indicative of the fact that they resort to body language in order to communicate. Evidently, in a similar manner, the readers of the field reports rely on their bodies and senses to experience and make sense of the narrative — what was previously described as “polyaesthetic” reading — in addition to interpreting the world by developing thought-patterns and mechanisms based on images, movements, and environmental stimuli.

What actually connects the silents’ experience with the readers’ embodied, polyaesthetic reading experience of the field reports is the realization that “[t]he bodily experience contributes to the cognitive processes of reasoning” (Kokonis, «Κινηματογραφικό Καρέ» (“Cinematic Frame”) 381, my translation).¹¹⁰ Viewing the human body as a source of knowledge and cognition, as the previous examples from the main narrative of *The Silent History* suggest, leads us to what Jill Didur and Lai-Tze Fan have termed “embodied knowledge/knowing,”¹¹¹ which can be defined as “learning through encounter” or “awareness through physicality” (92). Khaled et al. have also referred to “the framework of embodied/embedded cognition [...], where the inhabitation and projection of the body and the contextual situation of the environment serve as a basis for understanding the nature of cognition” (129). Moreover, according to the authors, agency, which was mentioned earlier as a quality of locative reading, has been associated with “the psychology of *enactivism*, where the structure and behaviour of the mind are considered to emerge from interaction with the environment” (Khaled et al. 129; emphasis in the original). If these theories are viewed in conjunction with all the above examples from the field reports, it could be argued that the

¹¹⁰ Kokonis again resorts to the cognitive theories by Mark Johnson and George Lakoff in order to draw his conclusions.

¹¹¹ This is a term that will be appearing throughout the analysis in this chapter and thus it will be referred to without the use of any quotation marks.

readers of locative narratives “act, experience and think *with* mobility” (Verhoeff and Wilmott 119; emphasis in the original). In fact, the readers of field reports engage into “a kind of proprioception, or experiential interaction with the environment, mediated through the senses” (Ladly 82). Proprioception,¹¹² or “embodied proprioception,” has been defined as “the awareness of our body’s position in relation to the environment enabled by our perception of movement and spatial orientation” (Richardson and Wilken, “Parerga” 191). Reading “proprioceptively” means “moving [our] bodies through space as well as with the aid of a screen-based map interface” (Engberg and Bolter 187), which describes the emphatically embodied ways in which readers of the field reports experience the narratives. With this in mind, I argue that in a similar way that the readers of the field reports achieve embodied knowing through their senses and the spatial exploration of their surroundings, the silents also do so. Readers of locative narratives engage into a process of embodied knowing while experiencing the narratives, but also the silents use their bodily experiences to communicate with others and perceive the world, as all the examples from the field reports “Lines,” “AC,” “Found,” and the main narrative prove.

Nevertheless, this parallelism that can be drawn between the silents and locative reading practices that leads to embodied cognition may even fall short. This is because the difference between the silents and the readers of field reports is that the latter, apart from their own bodies, also resort to verbal communication. Paradoxically, even the silents’ perspective and the

¹¹² Farman has also talked about proprioception: “Proprioception is not reliant on the purely visual; instead, it combines all senses into embodied movement that clearly negotiates where the limits of the body are and how the body is located in the space it inhabits. [...] We are able to position ourselves in lived space and are able to know where we are in relationship to the people and objects around us (such as a car) through proprioception” (*Mobile Interface Theory* 31). Farman continues: “Our perceptive understanding of our place in the world and how we specifically inhabit the spaces we move through is accomplished through proprioception. With proprioception, the senses work in conjunction—as they always have since no sense works in isolation from the other senses—to give us a sense of embodied place and situatedness. This sense of being ‘here’ in the world extends well beyond the limits of the skin toward a relational being-in-the-world. In doing so, the spaces we inhabit fluctuate from our immediate surroundings to the distance between us and a destination or between us and another person” (32). The readers of the field reports and the silents in *The Silent History* display a similar, embodied, proprioceptive connection with space.

embodied way they perceive the world is expressed in the main narrative only verbally — in written form — from the talkers' perspective. Only the perspective of two implanted silents is offered, Calvin and Persephone, albeit in verbal form once again. Thus, one could argue that the un-implanted silents remain silenced hence un- or mis-represented in the main narrative, as Gold also implies (198), due to the way they experience the world, which is not provided in the main narrative in a form that accurately reflects the embodied ways in which the silents interpret the world.

Commenting also on the issue of representation of marginalized voices in mobile narratives, Farman believes that “silencing voices and the narratives that present a coherent, singular version of history tend to function as means to further marginalize those who already lack a voice and agency within a culture: the oppressed, the victimized, the marginalized, and the stigmatized in a culture” (“Contested Landscapes” 193). However, mobile media “technologies layer stories, allowing many voices to be heard” (Farman 192). As he notices, however, “[w]hile this can lead to an enabling of marginalized voices that have been silenced by those in power, it can also lead to alternative narratives that seek to reestablish voices that have historically silenced others” (192-93). For this reason, “[b]y advocating for contested landscapes,” the author “advocate[s] for a disruption of the notion of a single, grand narrative of a place,” arguing “[i]nstead [that] places are always formed by multiple narratives that can often contrast and contradict each other” (193). Viewing Farman's views in relation to *The Silent History*, one observes that the novel does not seem to advocate for contested narratives, since it presents the voices of the talkers through the Testimonials, while the voice, or rather the experience, of the silents is not presented, as the readers are only presented with the voice of former silents. Therefore, Gold is correct in stating that the novel “meditates on the problem of the limits of self-representation, exploring what it means for the silent to be represented through second hand accounts as Calvin Anderson is one of the only former silent people who

we hear a direct testimonial from throughout the narrative” (198). For this reason, Gold believes that “[t]he inclusion of Calvin’s history reminds us that *The Silent History* is always only a partial history” (198). However, in this chapter I propose that the silents are not unrepresented, as my analysis will show, since the field reports compensate for this kind of unrepresentability.

The solution to the problem described above lies, I argue, in the tension that is created between conventional sedentary reading strategies and the performative/experiential aspects of locative narratives. First of all, I suggest that this very tension is also reflected in the main narrative of *The Silent History*. In fact, the novel presents the tension between two groups of people, the silents and the talkers, which revolves around the value of language and verbal communication, as well as the question of whether or not it is language that defines our human identity, as is evident in the prologue of *The Silent History*: “The very existence of this [silent] condition demands a reexamination of what exactly it is that makes us human” (“Prologue”). This being the case, two opposite views are expressed by characters who are in favor of the silents and the kind of non-verbal communication and embodied knowing they represent, and others who turn against them because they consider “the gift of speech” to be most valuable, as Margaret Lafferty, one of the main characters, utters (17.4). The former appreciate the silents’ non-verbal and embodied communication as being “the true language,” as Patti Kern, another character, states (9.2), to the extent that for them “*Language is a cage*” (19.4, emphasis in the original). By contrast, the latter “defin[e] silents by what they [lack]” (“Prologue”), even discriminating against them by calling them “mutetards” (8.3), as Margaret Lafferty does in the narrative.

This tension between the silents and the talkers is even incarnated in the two characters, Calvin Anderson and Dr. August Burnham, the scientist who develops the Soul Amp implant that helps the silents speak. In the context of the novel, the implant feeds words into the silents’

brain, drawing them from a pool of words located in a central server in PhonCom datacenter, a remote facility in Maine that is owned by Dr. Burnham. Thus, all implanted silents are connected in an online network. As already proven, Calvin, who works for Dr. Burnham in this facility, is in favor of the ways the silents perceive the world primarily through their senses, thus turning against the implant. Calvin's detestation for the implant culminates when another character, David Dietrich, invades the datacenter in order to eventually destroy the central server, something that will cause all implantees worldwide to return to silence. Calvin indifferently "turn[s] around and walk[s] out of the server room, closing the door behind [him]," and leaves, thinking that "[t]here [is] nothing in that room that [he] cared to protect" (*The Silent History* 20.1). On the other hand, Dr. Burnham underscores the advantages of verbal communication and the silents' implantation, highlighting that the absence of language results in isolation and "incapab[ility] of taking part in human society" (18.1), which is evident throughout the novel with the un-implanted silents being unable to communicate with talkers, thus forming their own communities at specific areas. Evidently, like Gibson's novels explored in the previous chapter, this novel also borders well-established genres, such as science fiction, in an attempt to portray the ambivalent effect of technoscience. However, as mentioned in the introduction and in Chapter One, this dissertation does not aim to examine the science fictional elements that can be found in these locative narratives. Instead, what is of primary importance here is the tension between the talkers and the silents. If the silents represent the embodied knowing and interaction that is evident while experiencing the field reports, as I argued earlier in the chapter, then talkers represent exactly the opposite, that is verbal communication, and by extension, conventional forms of reading that involve processing linguistic forms.¹¹³

¹¹³ However, for Gold "the silents represent forms of illiteracy or lack of access to technologies of reading and writing" (202).

Having said this, I propose that this tension that is described between talkers and silents in the main narrative ought to be seen as a metaphor for the ways in which the field reports of *The Silent History* can be experienced and approached on the whole. Put differently, the silents and the talkers could be regarded as the literary incarnations and embodiment of the “readers” of locative narratives. I put the word readers within quotation marks in order to indicate that, as Raley observes, locative reading “involves a variety of cognitive and bodily processes not necessarily duplicable with a print text” (“Mobile Media Poetics” 1). Initially, the field reports seem to prioritize “the visual processing of linguistic signs [...] over touching, listening, moving,” to use Raley’s words (1), given their emphatically verbal presentation of narrative, which can be read regardless of the readers’ movement in physical space; however, these very narratives offer the opportunity for polyaesthetic or proprioceptive reading that leads to embodied knowing, as proven earlier. For this reason, the fact that the field reports are not dynamic in the way Greenspan describes ought not be regarded as a drawback. It could be argued instead that this tension that is presented in the main narrative is neutralized through the field reports, as these reports require both linguistic and non-verbal forms of experiencing the narrative, which are represented in the main narrative by the talkers and the silents respectively. In other words, this tension between talkers and silents is reconciled in the locative narratives of *The Silent History*, where both language and embodied knowing function in a complementary way: in the field reports the readers are invited to read the digital text on the mobile screen in conjunction with the spatial cues provided by this very text. In relation to this, Fan also writes that “[t]he movements of a person walking through space and through the chosen space of a locative media narrative require engagement with a mobile device, a public space, and the visual or textual content of the locative media narrative” (11), which is exactly what happens in *The Silent History* after all, as shown.

This observation also answers my initial question of whether *The Silent History* poses “a challenge to the hegemony of words” (Raley, “Walk” 303), since the authors offer a balanced solution. First of all, Hayles believes that *The Silent History* promotes “a post-literate, post-verbal condition” because “embodied communication [...] replaces” language in the main narrative (“Postprint Production”),¹¹⁴ which envisions a future world where talkers eventually become silents. Although Hayles has a point, her approach overlooks that it is through its field reports that *The Silent History* establishes a balance: although the novel seemingly prioritizes the verbal element, it also obliquely emphasizes “the three key terms” that characterize locative narratives, which are, according to Raley, “experience, movement, and environment” (“Walk” 303). To these I would add narrative due to its verbal status that enables the activation of the other three elements in the story. Interestingly, the novel promotes the combination of all these elements through the form of its field reports, but also by thematizing them in both its main narrative and the field reports themselves.¹¹⁵ Ultimately, the field reports seem to balance the tension between the textual/verbal and the performative by presenting a sedentary mode of reading that, nevertheless, due to the verbal language that is used in the digital text that appears on the screen, offers readers the opportunity to engage in a process of embodied knowing. This kind of knowing is achieved through experiential modes of locative reading practices involving embodied interaction with the textual/screen and physical space — as is the case in the field reports of low experiential value — as well as active participation in the narrative experience — as is the case in the field reports of high experiential value (“Ducks,” “Private,” “Chess” and “Found”). Similarly, Greenspan observes that with StoryTrek, “the labour of reading can

¹¹⁴ Even though Hayles states that “embodied communication [...] replaces mark-making” (“Postprint Production”) in *The Silent History*, she does not explain how this is achieved through the locative narratives; instead, she chooses to concentrate only on the fact that non-verbal elements do not impede communication in the main narrative of *The Silent History*. I extend this argument by claiming that this non-verbal communication constitutes a metaphor for the embodied interaction evident while experiencing the locative narratives of *The Silent History*.

¹¹⁵ Needless to say, though, that Raley does not include the narrative element as a key term, something that confirms Greenspan’s observation that locative media theorists “de-emphasize the medium’s narrative dimension.”

no longer be described as a purely leisurely activity, but instead becomes a profoundly social act in which the reader actively and publicly forms interpretive links between her fictional and actual contexts.” With my analysis of *The Silent History*, I have attempted to provide an alternative way in which the readers’ active participation can significantly alter and embellish the narrative experience, while also “neutraliz[ing] the sedentary reading practices that continue to structure the experience of digital literature.”

In line with all the above observations, it can be argued that with the inclusion of locative narratives, *The Silent History* partly revolutionizes the form of the e-book. Greenspan has argued that “eBook readers are designed to remediate this conventional experience of disconnection, encouraging transportation while carefully curtailing the kinds of connectivity and situational awareness that characterize other mobile devices.” Hayles echoes Greenspan’s views by insightfully pointing out that “[t]he more convinced we are that the simulated page of the e-book reader differs in no significant way from a print page, the less we are able to engage critical inquiry in to the nature of what it is that we are reading” (“Postprint Production”). Indeed, a closer examination of *The Silent History* proves that it does convince its audience that it remediates the printed page or the digital page of the e-book, retaining the fictional transportation that is evident in e-books and print literature, while it also covertly invites the audience to engage with the dynamic, embodied, experiential, performative, and proprioceptive kinds of reading I explained in this chapter.

Thus, the novel “self-reflexively” stresses the ways in which readers experience locative narratives not only in “its form,” but also “in its diegesis,” as Gold has noticed (190). This self-reflexivity is evident in the fact that it is Calvin who reconciles the tension between talkers and silents in the main narrative of *The Silent History* by proposing, “alternative paradigms that embrace neurological diversity and a multiplicity of communication styles as well as bodily, oral, and textual literacies,” to quote Gold here (217). In particular, Calvin in

the novel says: “Let the dog have its thoughts, whatever shape they may take. Let the unknown be unknown. The things we need will reveal themselves in time” (*The Silent History* “Epilogue”). I extend Gold’s argument here by suggesting that it is specifically through locative reading practices that this tension is reconciled. Calvin’s words could serve as a metaphor for the future of literacies with the novel ending with a meditative tone on the future of the literary, implying that it can have many forms, verbal and/or experiential, with locative media narratives capturing both forms. In other words, embodied interactivity and embodied communication are viewed as the future of literacies.¹¹⁶ *The Silent History* constitutes a literary experiment that exemplifies Raley’s broader “conception of the literary” (“Mobile Media Poetics” 3). In particular, the novel confirms Raley’s observations that “the ‘literary’ need not be enacted, performed, or instantiated in th[e] [print] medium alone,” but “is flexible enough to incorporate multiple sensorial experiences as signifying elements” (3). The evolution of the literary is to be seen “in time,” as the narrative reveals (*The Silent History* “Epilogue”), since new media forms keep appearing.

As regards the issue of self-reflexivity, Gold’s observations in her Ph.D. dissertation, entitled *Correspondence Fictions: Critical Literacies and Experiments in Writing Media After Computation* (2015), need to be further considered. Like Gold, I am also trying to prove that the novel “self-reflexively explores the connections between literacy and space in its diegesis and its form” (190), albeit from a different perspective. Gold analyzes the ways in which the field reports “raise questions about ubiquitous networked technology and use of public spaces that are also depicted in the central narrative,” as well as the “metaphors of illiteracy” the novel

¹¹⁶ Martin Reiser stresses the inherent connection between locative media and the human body, which is evident in the epigraph to the present chapter as well: “The advent of Locative Media means that the body could potentially reassume its primacy as measure and scale in the world. It gives us orientation through its physical structure—front, back, left, right, up, down and its relation to the force of gravity. The mobile body could offer continuous new perspectives on the world, allowing for a far richer and subtler perception by all the senses [...]. Acknowledging this physical potential might be the beginning of more engaged artistic practice for Locative Media” (132).

deploys “to challenge our common sense uses of technology within privatizing public spaces” (203, 185). Although the author refers to alternative means of expression and post-print literacies, I am focusing specifically on the embodied ways in which locative narratives are experienced by the readers as well as on how they are dramatized in the main narrative in an attempt to explore how the novel resolves the tension between conventional sedentary print-centric and locative reading practices. I thus share Gold’s argument that the novel “draw[s] attention to our processes of reading and writing,” albeit not generally “in digital landscapes,” as she claims (186), but only in locative media narratives.

Another indication of the novel’s self-reflexivity is the virus that starts turning talkers into silents towards the end of the novel and is related to locative media through the symbol of the satellite. The narrative informs that “the virus actually originated from an infected satellite,” which “[t]hey’re trying to manually override [...] but the satellite’s outsmart them[,] [and] [i]t’s gone rogue” (*The Silent History* 24.2). The satellite constitutes the means through which locative media narratives are produced, as the mobile devices rely on the GPS signal transmitted from the satellites. If being a silent means displaying this heightened ability to engage into an embodied interaction with the physical space in order to achieve embodied knowing, then it is through this locative means (the satellite) that the virus is also transmitted in the novel. This could be interpreted as an indication that these spatial practices of embodied interaction evident in locative narratives will spread. This is another indication that, as argued earlier, embodied interactivity and embodied communication are considered the future of literacies. In the main narrative, this is promoted through the symbol of the satellite. Meanwhile, the possibility that the talkers will eventually become silents is manifested in the scene where Francine and Theodore can understand a foreign movie merely by paying attention to the character’s body language, even though they do not understand what they are saying.

All things considered, in this section I have sought to demonstrate the ways in which *The Silent History* connects readers with physical space, exposing also the strengths and weaknesses of its fictional locative narratives. I have also used Greenspan's theory and StoryTrek as a point of departure in order to illustrate that *The Silent History* also manages to reconcile the tension between the sedentary and the experiential aspect of locative reading practices, albeit in a different way from StoryTrek, that is through a compelling self-referential literary metaphor as well as the inclusion of field reports of highly experiential value. I have classified the field reports according to their experiential value in an attempt to examine the extent to which they remediate print-centric reading practices. The form of the field reports proves that, when it comes to analyzing locative texts, it is through the combination of language and embodied cognition that the literary is redefined. Ultimately, the value of the novel lies in the fact that it invites readers to re-evaluate not only the ways in which locative texts can be read, approached, and experienced, but also how literary strategies, techniques, and terms, such as immersion, which are associated with print literature, can be appropriated in locative fictional narratives. Through the analysis of *The Silent History* provided in this chapter, there has been an attempt to reverse Greenspan's arguments, by arguing that *The Silent History* *deliberately* remains faithful to conventional sedentary modes of reading pertaining to e-book technologies, while even self-reflexively promoting new modes of embodied cognition and spatial interaction, illustrating in this manner the complementarity and combinatorial value that exists between those modes. In the next section the tension between print-centric reading practices and embodied interaction will be addressed in relation to nonfictional locative sound narratives and the audio book.

2.2 Narrative and Experiential Elements in *Times Beach* and *Fens*: Revolutionizing the Audio Book

The previous section explored alternative ways in which fictional locative narratives can neutralize what Greenspan has referred to as the tension between sedentary reading practices and the embodied interaction and performativity of locative narratives. This section will attempt to explain how certain nonfictional locative sound narratives may also reconcile this tension in different yet innovative ways. The texts to be considered here are two 2017 USA-based, site-specific sound-walks: *Times Beach* by Teri Rueb in Buffalo, New York, and *Fens* by Teri Rueb and Ernst Karel in Boston, Massachusetts.¹¹⁷

While the previous section focused on the extent to which the form of the e-book is challenged and revolutionized by locative narratives, in this section locative sound narratives will be juxtaposed with the audio book. What Greenspan considers problematic is the fact that, like e-books, audio books also promote sedentary modes of reading by isolating the users from the real world. He notices that “the vast majority of audio books exist as spoken versions of printed texts,” as they “have failed to produce new literary genres that exploit the dynamic, interactive, multiplayer and performative features that are so integral to the experience of hypertext literature, videogames and social media.” Greenspan compares locative narratives that are delivered in audio format to audio books; he even considers “[this] comparison [...] informative,” arguing that “the majority of successfully implemented locative narratives to date have used portable audio devices tied to GPS receivers to trigger playback of pre-recorded story segments as the user approaches certain geospatial coordinates.” Despite the fact that “[t]his technical modality, [...] has encouraged the emphasis on performativity in critical approaches to the locative,” site-specific audio narratives *retain* “the conventional features of

¹¹⁷ The words “Times Beach” and “Fens” will be used in this chapter in three different ways. They initially refer to the locative works *Times Beach* and *Fens*, then they may allude to the specific geographical area of the Times Beach Nature Preserve and the Back Bay Fens in Buffalo and Boston respectively, and finally to the websites entitled “Times Beach” and “Fens” respectively where Rueb documents/comments on these locative works.

printed literature” pertaining to audio books (Greenspan). This comparison mirrors the one between textual locative narratives and the e-book that was explored in the previous section. On the basis of Greenspan’s theory, I will attempt to show that, while some of the locative sound narratives in *Times Beach* and *Fens* do retain the “conventional narrative transportation” (Greenspan) pertaining to the audio book, thus occasionally isolating their participants from the real world, other narratives invite the audience’s embodied interaction with the physical space, thus promoting the dynamic and polyaesthetic/proprioceptive kind of reading that was commented on in the previous section. However, although Greenspan refers to fictional literary texts, I intend to examine his observations in relation to nonfictional texts in order to explore how the concept of narrativity is affected in terms of narrative transportation in the storyworld. The same methodology will be followed as in the previous section: the locative narratives in *Times Beach* and *Fens* will be considered on the basis of the scale of experientiality in an attempt to illustrate the ways in which the narrative experience is altered and shaped in nonfictional locative narratives. By extension, attention will be paid to the ways in which *Times Beach* and *Fens* depart from the sedentary (print-centric) reading practices of the audio book as well as to how Greenspan’s tension between these practices and embodied interactivity is neutralized.

The site-specific works, *Times Beach* and *Fens*, will be analyzed in parallel. Besides displaying similar locative reading and narrative strategies, as I am about to illustrate, they are both Rueb’s most recent works still not having received adequate scholarly attention. Moreover, they both deal with the same theme of “reclaimed landscape,” as Rueb herself states (“Performing Place”), and its transformation over time. The names of these locative works allude to the locations to which they are attached. *Times Beach* is located at the Times Beach Nature Preserve in the Buffalo Outer Harbor; *Fens*, which was created in collaboration with the video artist Ernst Karel, covers the area of the Back Bay Fens in Boston, which is “part of

a larger park system designed by” American landscape architect Frederick Law Olmstead (Rueb, “Performing Place”). As Rueb’s official website informs, when European settlers came to America, they claimed these marshland areas that were both later used as disposal areas (“Fens”; “Times Beach”). Both areas have nowadays been restored — Times Beach as a natural preserve featuring a wide variety of plants and birds, and Fens as a biodiverse recreational park area. Both locative works are downloadable as mobile applications, featuring the multiple (hi)stories of the landscape in the form of GPS-enabled, site-specific audio narratives and sound files, which are activated by the participants’ movement in physical space. Positioned at the interstices of the cityscape, these works offer participants the opportunity to listen to bird and city soundscapes, as well as personal stories by various characters and landscape experts talking about the afore-mentioned areas.¹¹⁸ As is the case with the field reports in *The Silent History*, the sound files in these works can be accessed in any order. While the primary mode of experiencing *Times Beach* and *Fens* is listening, I will be referring to their audience not as listeners but as “participants,” borrowing the term from Rita Raley (“Walk” 301), which highlights the multiple modes in which participants can experience both works, that is listening, reading and walking, all of which will also be commented on in this section.

Locative narratives that explicitly remediate the audio book technology by essentially relying on modes of sedentary reading (listening in this case) belong to the lowest or zero level of experientiality. The following excerpt from a narrative in *Times Beach*, in which one of the experts talks generally about the Times Beach Nature Preserve area, informs the participants

¹¹⁸ *Times Beach* and *Fens* appear to be similar to another work by Teri Rueb and Peter Del Tredici, *Other Order* (2014), in that it presents the “ways in which the [Bussey Brook Meadow] has been inhabited over time and the various materials and organisms that make up the complex social, biological, and physical matrix that is Bussey Brook Meadow” (Del Tredici and Rueb 20). In a similar way to *Times Beach* and *Fens*, “[v]oices in [this] work range from those of experts who tell us what to look for, what to hear, and what to value in this richly vegetated environment, to those that offer meandering impressions, personal histories, random thoughts, and idiosyncratic perceptions of a place[,]” while “[a]nimals, wind, weather, and water are equal voices in this mix. Through this blending of voices, the work draws upon the cosmopolitan botany of the site as a central metaphor and a means for asking probing questions about ownership, access, interpretation, and use of public parks and green spaces” (21-22).

that “[t]his is a type of environment out *here* in the Outer Harbor that is incredibly [...] raw and brisk [...] [a]nd it takes a really particular collection of plants to survive, but also it’s pretty interesting that raw, intense environment that happens *here* could arguably be seen as a looking glass into what maybe the climate change future of Buffalo may be” (*Times Beach*, emphasis added). Although this particular excerpt can be “heard only in the *presence* of [its] referent,” it does not “establish a strong sense of place” (Ryan et al. 136; emphasis in the original). This is because, as is the case with the low experiential narratives in *The Silent History*, this piece could be made comprehensible even if it was accessed via non-locative means. In other words, the narrative does not seem to challenge print-centric technologies, since it does not “promot[e] a lived, immersive experience of space” (Ryan et al. 132), as the texts belonging to the next levels of experientiality do. Even the use of the adverb of place “here” in the narrative refers generally to the wider Times Beach area, without directing the participants’ attention to a specific point in space, as other narratives do, as I will show further down, in order to immerse the audience in physical space.

The narration of historical events in *Fens* constitutes another example of print-centric practices that remediates the audio book. In one of the narratives, to which I will also return in my analysis, a woman reports various spooky events that have allegedly taken place in the Charlesgate Hotel in Charlesgate Park, Back Bay Fens. These stories do not require the participants’ interaction with the physical space, as they can be understood if listened to in any other location. Since in the above examples there is no interaction between the participants, places, and texts, these stories read more like general entries whose comprehension is not dependent on the location to which they are attached. Thus, the narrative fails to create a sense of place, which is exactly the unique function that locative media affords to users according to Ryan et al. (136). These realizations confirm Ryan et al.’s view that, “while locative narratives have a bright future for tourism, museums, and events such as cemetery walks, they can alienate

us from the world as much as they can provide valuable information” (136). Therefore, while these narratives do inform participants about the place they inhabit, they ignore the affordances of locative media, since the locative component is rendered redundant. These texts can thus be compared to what has been called “digital graffiti,” a mode of interaction referring to messages that everyone can attach “to particular geographic locations, and upload them on the Internet” (Ryan et al. 127).¹¹⁹

To this level of experientiality also belong instances of what has been described by Hight as “Narrative Archaeology,” referring to narratives that blend multiple temporalities. As explained in the previous section, Hight compares the author of locative narratives to an archaeologist discovering artifacts and layers that emerge while “digging vertically into the ground” (“Narrative Archaeology”); the author of locative narratives “is working within the city, its streets,” also uncovering artifacts and “layers in time,” thus revealing past and present versions of places (“Narrative Archaeology”). In a similar manner to *The Silent History* where the city, as manifested in the different urban centers where the stories can be experienced, can be regarded as a multi-layered archival entity where the past is reanimated in the present as already shown, *Times Beach* and *Fens* create a certain kind of layered, both spatially and temporally, experience. In other words, these two works have the form of location-based files that include personal stories and sounds recorded at and referring to a specific moment in time. These stories and sounds remain hidden and invisible until they are revealed by the participants through the use of locative media. This validates Mike Crang and Stephen Graham’s observation that “[l]ocative media offer a way [...] of making visible all these hidden stories of place” (808). This is also reaffirmed by Raley who argues in her article “On Locative Narrative” that “[l]ocative media [...] seems to have at its core a drive toward memorialization,

¹¹⁹ Digital graffiti has been characterized as “both an advantage and a problem” (Ryan et al. 127). On the one hand, it is a democratic tool that “lets everybody tell their own stories” (Ryan et al. 127); on the other hand, the “uncontrolled proliferation of graffiti” created a need “to filter out the unwanted messages” (Ryan, “Cyberspace”).

not a strict recovery but a remembering of the past” (128). Echoing Hight’s observations on narrative archaeology, she continues to say that “[m]etaphors of mining are prevalent—histories are ‘discovered’ and ‘unearthed’—so as to present an archaeology of place” (128). These observations become evident in *Times Beach* and *Fens* as well. Indeed, the “archeological” artifacts that have been attached to particular locations “evoke the different scales and temporalities of [the] processes that shape the landscape,” as is revealed in Rueb’s website as well (“Fens”). For instance, *Fens* includes songs sung by people at specific places: the participants can listen to a man and a young girl rapping and singing at two different locations near the basketball court, as well as to another song accompanied by human clapping near the fire station in the Back Bay Fens. These files capture experiences that took place at specific locations in the past, or rather, they can be described as what the website refers to as “[f]ormerly present moments [...] re-enlivened as audio” (“Fens”). This being the case, while passing by these places where the songs are attached, the participants are invited to reanimate these past moments by imagining those people being there singing, or even performing (in the case of the clapping). For this reason, following Ryan’s theory, to which I referred in the previous chapter as well, these instances cannot themselves be considered narratives, as they do not “entai[l] an underlying sequential structure,” but they “posses[s] narrativity” due to their “ability to evoke [...] new stories” (Ryan et al. 159, 139). Narrativity in these particular instances becomes evident if these songs are viewed as part of a larger narrative framework consisting of events and actions that happened before and after the acts of singing/performing, that is how and why those people are singing for example, information that is not revealed via locative means, but is to be invoked and imagined by the participants.

Apart from songs, other sound files include either stories that are narrated by people or events happening at specific places in both *Times Beach* and *Fens*. A striking example of this is the Richard D. Parker Memorial Victory Gardens in *Fens*. As a narrative in *Fens* informs us,

the Fens Victory Gardens are “the last of two victory gardens that are still active, [...] the other one being in Minnesota.” Upon entering the Victory Gardens section, the participants listen to a Victory Gardens radio advertisement dating back in the 1940s, encouraging them “to have [their] own victory garden [...] in 1943” (*Fens*). As Rueb also reports in a lecture, in this section “people can plant gardens to support their own sustenance in bringing vegetables home” (“Performing Place”). The participants have the opportunity to wander around this section of the Back Bay Fens, which is divided into small subsections bearing the alphabet letters from A to Z; these are also subdivided into smaller land plots where each person has planted his/her own garden with vegetables. The gardens are replete with oral location-based stories from the past told by garden owners talking about their gardening practices and experiences. Various sounds can also be heard in the background, including incomprehensible human talk, sounds of gardening tools, people digging the earth and watering the gardens, and bird sounds. In a similar manner, the participants in *Times Beach* can also listen to various stories told by people who have visited the area. For example, one can listen to women looking for woodpeckers and taking pictures of them, a mother with her daughter sounding enthusiastic about going birdwatching in the Times Beach Nature Preserve, and a man talking about the cleansing properties of a tree called “Palo Santo.”

In all the above cases, the participants are offered a layer-upon-layer, in other words a palimpsestic, narrative experience. For instance, in Rueb’s official website, it is stated that “*Times Beach* is a sound walk that weaves together sonic traces of these different moments, building a palimpsest of voices, field recordings and resonances that evoke the various temporalities and textures of the site” (“Times Beach”). Similarly, *Fens* is also described as “an emplaced, responsive sound piece that introduces another layer onto the palimpsest that is the Back Bay Fens” (“Fens”). What the above examples make participants aware of is that locative space — a term discussed in Chapter One — is created through a certain “kind of

blended emplacement in the here and now but also projection into other times and other conditions,” to use Rueb’s words when she lectures about *Fens* (Rueb, “Performing Place”). Indeed, “layers of time become audible and blend with the contemporary moments of each encounter” (Rueb, “Performing Place”). This palimpsestic layeredness created by the narrative experience can also be described as what Rueb herself has called a form of “displacement” in that the participants are displaced “in the multiple temporalities and subjectivities suggested by the incredibly lively [...] landscape” (“Restless” 251).¹²⁰ What all the instances of narrative layeredness or “archaeology” in this section highlight is the participants’ spatio-temporal immersion in the narrative, which is achieved through the spatial layering of stories and sounds that belong to a past moment: the participants not only locate themselves at the exact location where an event takes place, but also they are invited to be temporally transported, or displaced, to use Rueb’s terminology, at the time when it happens. Therefore, the participants are isolated at least temporarily from the real world, which is what makes them less experiential than the rest of the narratives, consequently, failing to reconcile Greenspan’s tension. Interestingly enough, these instances of narrative archaeology are different from the ones in *The Silent History*, which are more experiential than the ones in *Times Beach* and *Fens*. This is because all field reports in *The Silent History* do attempt to establish some kind of sense of place, and consequently, contrary to *Times Beach* and *Fens*, there are no locative narratives of zero experientiality in *The Silent History*, as already shown.

Contrary to the above narratives that appear to remediate sedentary reading practices, the narratives belonging to the next level of experientiality aim to create a sense of place by directly connecting text with locations. This is achieved mainly through the use of verbal

¹²⁰ On discussing *Core Sample* (2007), another locative work by herself, Rueb comments on the fact that “the project sought not only to displace participants’ sensory and perceptual experience of the island as a material site, but also to displace them in the multiple temporalities and subjectivities suggested by this incredibly lively and resilient landscape” (“Restless” 251). However, this can also be used to discuss displacement in her latest works, *Times Beach* and *Fens*.

pointers, a technique that is also evident in the field reports of *The Silent History*. Characteristic examples of this group of locative narratives engage the participants in the process of following guidelines by a narrator, who prompts them to identify in the real world those elements that he/she describes; this process is referred to in the previous section as “reflection” in accordance with Khaled et al.’s theory. In the following excerpts from *Fens* the narrative creates a sense of place by directing the participants’ attention to specific points in physical space:

So here we are in the interior of the park between the two [...] roadways and you can see that in the highway system now, you have the main highway, an elevated highway over it, and then you’ve got a northbound ramp, coming down on one side and a southbound ramp going up on the other side and so [...] the ramps come down you’ve got a surface road called Charlesgate East which is heading toward the Charles River, and Charlesgate West heading away from the Charles River.

[A]ny place in Boston is haunted and you are looking at it right here behind is what was once the Charlesgate hotel. You’ve probably heard of this building, this was built in 1891 [...]. Think about this building sitting here, looking over what was thought to be part of the Back Bay Fens, where we are right now is Charlesgate Park. (*Fens*)

As if taking part in a guided tour, the participants in the first excerpt are informed about “the highway system.” Like a tour guide, the narrator first situates the participants at the specific location — “here we are in the interior of the park between the two [...] roadways” — through the use of spatial language — “here,” “coming down on one side,” “going up on the other side,” “ramps come down,” “heading toward,” “heading away.” Also, through the use of the second person singular — “you can see,” “you have,” “you’ve got” — the narrator draws the participant attention to various directions where particular material elements are located — “the main highway, an elevated highway over it,” “northbound ramp,” “southbound ramp,” “the Charles River.” The narrator goes on to talk about the number of lanes of the streets he

describes, showing that traffic can be controlled “with some smart traffic signals with three plus three lanes, six lanes instead of nine lanes.” Similarly, in the second excerpt from a narrative about the Charlesgate Hotel, to which I referred earlier in my discussion of the zero-experiential-level narratives, the narrator, again in a fashion reminiscent of a tour guide, points to specific locations through the use of verbal pointers — “looking at it right here, behind,” “this building sitting here, looking over what was thought to be part of the Back Bay Fens, where we are right now.” Similar immersive strategies are utilized in *Times Beach*, where the participants are directly addressed, as the repetition of the phrase “you can see” indicates, as shown in the following excerpt: “you can see lots of more native plants here...there’s a native plant called teasel, which looks sort of like a cone. Of course, you can see some nonnative plants in there, however, the natives are doing pretty well” (*Times Beach*). The narrative also directly draws attention to the surrounding elements, namely the teasel. In another excerpt, the narrator focuses on the Erie lake: “And we can start to see the outline of the lake where we were standing back” (*Times Beach*). The aim of these narratives is to engage the participants with the surroundings, but also potentially to provide them with historical information, as is the case with the Charlesgate Hotel narrative.

In contrast to *The Silent History*, verbal pointers in these nonfictional texts do not appear to diminish the narrative’s experiential value to such a great extent because the locations to which the texts refer each time are *thematized*. That is to say, the locations in the Back Bay Fens and the Times Beach Nature Preserve that are mentioned in the narrative become an essential part of it, since the purpose of the narrative itself is to acquaint the participants with these very locations by creating as stronger a sense of place as possible. As Ryan writes about immersion in a nonfictional text, it does not rely on a game of make-believe, since the purpose of such a text is not to “produc[e] imaginings,” as a fictional text does, because it “subordinates imaginings to belief creation”; that is to say, “[i]ts ultimate goal is indeed to claim truth, not

merely fictional truth, for certain propositions” (*Narrative as VR* 2 78).¹²¹ This being the case, the world described in the narrative is not fictionalized, as happens in *The Silent History*, but additional (historical) information is offered about this very place via locative media. If, in the case of the field reports of *The Silent History*, being present at the specific locations to which the narrative refers adds only some experiential value to it, as argued in the previous section, in this case location awareness adds greater experiential value as well as greater rewards to the audience for being at this specific location. While the setting in the field reports of *The Silent History* serves only as means to narrate the story, *Times Beach* and *Fens* discuss the place itself and the events that actually happened at those places.

Despite this, Greenspan’s ideas are also valid in this case, since, as already proven, these narratives still seem to remediate the audio book: the audience’s (embodied) participation in the narrative experience is minimal, since the narratives can be comprehended regardless of whether they are bodily enacted; thus, the narratives still retain sedentary print-centric practices. These narratives, especially the one where the traffic system is described, display a kind of spatial mapping that participants may find difficult to visualize unless they are located at the specific location where the events take place; however, they would still be comprehensible were they to be read at any other location. This is because the participants need not visualize the place mentally in order to understand for example the “smart traffic signals” (*Fens*) of the streets or the spooky stories about the Charlesgate Hotel. This effect results from the fact that, as in the field reports of low experiential value in *The Silent History*, these narratives describe exactly what can be found in the physical space because the world presented in the narrative directly reflects the physical world. Thanks to the use of spatial language, the participants easily identify the similarities between the two worlds — virtual and physical —

¹²¹ This being the case, as Rueb observes about another work of hers, the “participant[s] becom[e] [...] unable to fully enter [the narrative] as in a traditional narrative or through ‘suspension of disbelief’” (“On *Itinerant*” 276), which is also evident in these excerpts here.

a technique Khaled et al. call “reflection,” as I showed in the previous section on *The Silent History*, and is evident in *Times Beach* and *Fens* as well.

Slightly more experiential than the previous group of locative narratives, the ones belonging to the second level of experientiality retain the connections between text and place that are evident in the previous set of narratives, while again giving directions to the participants by drawing their attention to the multiple histories of the places they visit while walking. These narratives can also be viewed as examples of narrative archaeology. The narrative experience in these cases is again a multilayered one, albeit in a different way from the instances of narrative archaeology of the zero level of experientiality in that “[t]he story world becomes one of juxtaposition, [...] of layers appearing and falling away[,] [...] creat[ing] an overlap experience in real time of experiencing two places at once” (Hight, “Narrative Archaeology”). Indeed, this kind of “overlap experience” suggests that the participants are invited to contemplate not only on the similarities, but also on the differences between elements that are presented in the textual and the physical world, which is another aspect of reflection shown in the previous section on *The Silent History*. These narratives invite the participants to construct a mental image of the place across time. This can be achieved through the capturing of diverse moments in time that one can view in a timeline fashion. For example, a narrative in *Fens* describes changes in the railway system at the turnpike on Newbury Street. First of all, the number of the tracks has changed: “right now there are only two train tracks, there used to be maybe four or six tracks” (*Fens*). As the narrator also reveals, “a whole block of buildings” was “destroyed” and replaced with a “pretty white stone building on the other side of the track,” while another “block of buildings was demolished to make space for the turnpike” (*Fens*). Evidently, the world-image from the past can be juxtaposed with the one from the present, since the participants are constantly prompted to overlay the former onto the latter. Another change throughout time involves urban planning and street reconstruction. The participants here are invited to visualize

the changes in the cityscape by comparing the old street complex to the new one: “the Jack Kendall road [was removed] so if you are coming up Brookline and you wanted to make a left on to Park drive, you used to have to go to Jack Kendall roadway; now what you do is [to] come up that road and we created this new left turn” (*Fens*). This intervention that the narrator mentions should be considered an improvement in the traffic system in that it no longer takes “a lot of traffic cycles to get to this very point” (*Fens*). In similar ways, the narrative in *Times Beach* addresses the processes of constant transformation that the Outer Harbor has been undergoing, from a marshland to “port land to industrial wasteland” to a “confined disposal facility” to a nature preserve eventually (*Times Beach*). As one of the narrators confirms, “this [area] didn’t use to be here”; “from a landscape perspective it’s all new,” as “everything changes all the time” (*Times Beach*). For example, one of the landscape changes mentioned in the narrative is “a sea wall [that] extended where Furman Boulevard is today and [...] was built in 1838” (*Times Beach*). The world-image that the participants construct while being present at the Times Beach Nature Preserve involves mentally positioning the sea wall “along this peninsula that forms the spit of land between Lake Erie and the Buffalo Creek which later became the Buffalo River” (*Times Beach*). This superimposition of images creates a multi-layering effect that aims to deepen the participants’ understanding of the (history of the) place.

In all the above examples, what the narrator witnesses in the physical world is vividly juxtaposed with the imagined past versions of the landscape. The reason why all previous strategies of connecting place with text — direct address, demonstrative pronouns, and adverbs of place — are retained in these narratives is to draw attention to the specific locations that can be juxtaposed with the world-image that the narrative creates, which is a representation of the place as it used to be at some point in the past. Similarly to the previous instances of narrative archaeology, the reference to the diverse world-images depicted in the narrative, as is the case of the sea wall, the past version of the traffic system, and the buildings that were destroyed to

make space for the railway, can also be viewed by the participants in real time when prompted to visit the particular locations by the narrative.

Having said all this, one could claim that in the above examples the narrators themselves invite the participants to re- and co-construct locative space through the juxtaposition of multiple temporal versions of reality. If viewed together, the past and present depictions of the world contribute to the formation of a hybrid locative space, as described in Chapter One, consisting of virtual and physical elements. It could be argued that the participants, as Eaket would put it, become “co-creator[s] of meaning by [...] reconcil[ing] real and remembered versions of the same place, [...] ‘work[ing] over’ these overlapping historical moments until they resolve into a new synthesis” that invites “an appreciation of place that is both material and historical.”¹²² Eaket’s concept of place as co-constructed by the participants in locative narratives also echoes Hight’s observation that, from a narrative archaeological perspective, “[p]lace becomes a multi-tiered and malleable concept” (“Narrative Archaeology”). In this sense, with the help of the narrators who offer prompts, the participants in *Times Beach* and *Fens* co-construct the past versions of the place in their imagination, eventually re-constructing locative space by mentally layering these versions onto physical space, thus being “encouraged to imagine the same place in a different time,” as Anders Fagerjord would argue (262). Locative space consists then here, as shown also in Chapter One, of a digital version of reality accessed via locative media technologies and the physical space onto which the former reality is projected in the participants’ minds. Ultimately, in this kind of locative narratives, the participants’ “nontrivial effort” (Aarseth, *Cybertext* 1) to experience the text becomes greater in that they are invited to create an additional world-image that is to be projected onto the already existing one. In these narratives, the participants’ immersion in the

¹²² Chris Eaket writes this about another locative project, *[murmur]*, but it can also be applied to *Times Beach* and *Fens* as well.

physical space constantly shifts between the two worlds, which is exactly what renders them more experiential than the examples of narrative archeology already touched upon that belong to the zero level of experientiality.¹²³

The narratives of the third level of the scale of experientiality encourage the participants to engage into a more active participation in the narrative experience, prompting them to interact with their surroundings by resorting to more than one senses. That is to say, these narratives do not merely ask for the visual engagement of the participants with their surrounding environment, but with the sounds and feelings this evokes. In a similar way to the field reports of the third level of experientiality in *The Silent History*, this is achieved through the language used in these locative narratives that prompts the participants to perform moves in physical space. In one of the narratives of *Times Beach*, for instance, the narrator invites the participants to “walk up to the overlook” where there is “a bird blind” in order to “see different kinds of [birds]” as well as to “hear the Canada geese calling” while feeling the coolness of the shady forest and the “nice breeze” (*Times Beach*). In a fashion reminiscent of the “AC” field report in *The Silent History*, this narrative creates a synesthetic experience by encouraging the participants to interact with physical space by resorting to all their senses. This synesthetic effect is further intensified by the sounds deriving from both the locative narrative and the actual environment, which is where the difference from “AC” lies. Indeed, the participants listen to the bird sounds in the locative narrative in the background, as the narrator prompts them to do, but also they listen to the ambient sounds of birdsongs to the extent that at some points it becomes difficult to distinguish between the virtual and the physical sounds produced. This kind of “[o]ntological ambiguity [that] may result when perceptual cues are not readily

¹²³ The above examples allude to another tension that Greenspan notices. According to Greenspan, the archaeological element is also over-emphasized compared to the narrative element. I would claim that the experientiality of the examples of narrative archaeology prove that the tension is partly resolved, since, while these narratives connect the audience with the real world, they do not subvert sedentary reading practices, as the analysis has shown.

attributable to the existent place or the fictional world of the story” is exactly what Whittaker describes as “*multi-stability*” (137, 311; emphasis in the original).¹²⁴ Although Whittaker refers to fictional space, this observation could also be applied to these nonfictional texts, *Times Beach* and *Fens*, where the virtual and the real are juxtaposed while forming a hybrid locative space.

Other narratives of the third level rely strongly on role-play, asking the participants to identify with a character or emulate the narrator’s acts and behavior, something that was also evident in “Too Loud” and other field reports in *The Silent History*, where immersion can be considered, as already shown, a “mental simulation” (Ryan, *Narrative as VR* 278). A case in point is another excerpt from *Times Beach*, where the participants’ senses are once again activated, while they are also urged to follow the narrator’s route in physical space:

And we can start to see the outline of the lake where we were standing back [...], you didn’t really know you were on the lake, you could feel the coolness and the breeze but you couldn’t see it, so we’ve walked maybe 200 feet into the woods here and now all of the sudden you can see the opening and you know that there’s something on the other side. That kind of lifts your heart up a little bit, it’s really wonderful. (*Times Beach*)

The synesthetic aspect of this text rests in the emphasis placed on the uplifting effect triggered by the landscape — “That kind of lifts your heart up a little bit, it’s really wonderful” — but also on the use of verbs of sensation, such as “see” and “feel,” since the narrator prompts the participants to “see the outline of the lake” as well as “feel the coolness and the breeze.” Despite the temporal distance between the narrator’s and the participants’ visits in the Times Beach Nature Preserve, the use of the first-person plural here generates a sensation of co-presence; the narrative here creates the impression that the narrator is moving in physical space together

¹²⁴ It is called multi-stability because the “*value of reality* is metaphorically multi-stable, moving between the factual and the fictional” (Whittaker 311; emphasis in the original).

with the participants, by literally walking “into the woods.” In fact, the participants are invited to simulate the actions of the narrator, who appears to be co-witnessing the physical world.

This feeling of co-witnessing is even more evident in the next example from *Fens*, where the narrator, using the first-person plural again, meticulously describes his moves in physical space in an attempt “to cross from one crosswalk to the next [one]” in a street junction:

We have to cross and it’s a three-stage crossing so we hit the button and ask for the first stage [...]. So now we are on an island, we’re heading right toward the Charles River, I can see MIT’s big dome in front of me and now comes the second crossing and we’re lucky it says ‘Walk’ so we can just walk and now we crossed to the next island and we have another crosswalk [...]. (*Fens*)

These narratives seem to be essentially performative since, instead of being given direct instructions by the text, as was the case in the narratives of lower experiential value, the participants are indirectly urged to be more actively engaged into the narrative experience by enacting a character’s movements. In other words, while performativity in the previous narratives was expressed through reflection, that is by matching elements in the story world with elements in the physical world, as already shown, in the narratives of the third level the participants are prompted to navigate in physical space, while also immersing themselves in it through all their senses, not only through seeing.

Having said all this, as in the case of *The Silent History*, the narratives of first, second, and third level of experientiality in *Times Beach* and *Fens* offer the participants the opportunity to achieve what was referred to in the previous section as embodied knowing. This is accomplished through the combination of the language used in the narratives with the stimuli received from the environment; it is the text itself that prompts the participants to resort to their body and senses in order to engage into an exploration of the physical space, something that is also highlighted in *The Silent History*, with the only difference being that in *Times Beach* and

Fens the text is listened to rather than read on the mobile screen. Even Rueb in an interview to Hight locates the value of locative media in the fact that it “offer[s] ways to reassert the body and the full spectrum of the senses in digital media experience, something that [...] was sorely missing in the mostly screen-based world of digital media” (6). The difference then between the narratives of the third level of experientiality and those of the zero level can be described in Simon Pope’s terms. Pope differentiates between “sedentary knowledge” and “ambulant knowledge.” While zero-level narratives can be described as a form of sedentary knowledge, as they “deman[d] a static and stable position,” the narratives of the third level promote ambulant knowledge, by “enabl[ing] an understanding of being in between stable points,” to use Pope’s words.

Nevertheless, it cannot be guaranteed that the participants in *Times Beach* and *Fens*, as happens with the readers of the field reports in *The Silent History*, will definitely engage into this kind of dynamic and embodied enactment of the locative narratives. This is something that Greenspan notices about locative narratives as well because “not everyone wants to be forced to perform their own stories.” This indicates that it is the participants who will eventually decide about the ways in which they are going to interact with the text. Indeed, one may argue that the narratives of the first, second, and third level could be made at least partly comprehensible even by hypothetically reading them on a printed page or listening to them at home, if this option was offered; or one might as well claim that the participants could merely listen to the narratives while walking, without paying attention to their surroundings, indulging themselves in a conventional print-centric practice. Certainly, the experiential value in these cases would be much lower or even lost because the mere reading of the narrative prevents participants from engaging into an embodied interaction with the text. This is exactly where the roles of a reader and participant can be distinguished with the latter being given the opportunity to engage with the surrounding environment that constitutes part of the locative

narrative experience. In line with the above observations, even the highly experiential narratives belonging to the third level could be said to remediate the audio book, as Greenspan would claim, although they clearly offer a more immersive spatial experience than the previous narratives, by engaging the participants into a more active interaction with place and text leading to embodied knowing.

If this is the case, how is ultimately the tension between sedentarism and embodied interaction neutralized in *Times Beach* and *Fens*? The answer to this question, in my opinion, lies in the narratives of the last (fourth) level of experientiality, which engage the audience into an even more active participation in the narrative experience than the previous narratives, by emphatically complicating the identification of the elements in the physical space. Increasing as much as possible the participants' motives to play an even more active role in the narrative experience, or "to enact the story bodily," in Greenspan's words, they offer a compromise between sedentarism and embodied interactivity. In terms of their experientiality, these narratives then are similar to the field reports of the fourth level in *The Silent History*, as they encourage the participants to meticulously investigate their surroundings with the aim of discovering clues that will help them achieve narrative coherence. Unlike *The Silent History*, however, the process of meaning-making here is emphatically fragmentary, and can thus be viewed as a jigsaw puzzle in that the audience is required to form a comprehensible whole, as is also the case in *Ingress* in Chapter Three. In this light, the effort required by the participants to experience the narratives is greater than the one in the previous narratives, as the following series of examples will show.

A case in point is when the participants in *Fens*, while walking on Boylston Street, suddenly listen (in the *Fens* app) to a man reading one of his favorite poems, as he says, by the American poet John Boyle O'Reilly, entitled "The Cry of the Dreamer." At this point the participants will expect to encounter an element in the physical environment that relates

directly to what they are listening to; they will likely start wandering around in search for clues. This is similar to the kind of “multi-stability,” to use Whittaker’s term, evidenced in the highly experiential field reports in *The Silent History*, since this kind of spatial indeterminacy may initially generate feelings of confusion to the participants. It is when they finally locate John Boyle O’Reilly’s monument at Fenway and Boylston Streets that participants, who may not be familiar with the poet, will also be confronted with the text below the statue, which combined with the locative text can offer a more complete narrative experience, as will be shown next. First of all, as I have already noted, Ryan differentiates between “being a narrative” and “possessing narrativity” (Introduction, *Narrative across Media* 9). In *Narrating Space/Spatializing Narrative: Where Narrative Theory and Geography Meet* (2016), Ryan et al. argue that urban toponyms, like street names, are “deeply imbued with narrativity, even though they rarely comprise complete narratives by themselves” (158). Similarly, although not a narrative in itself, the text on O’Reilly’s statue is “rich in narrativity” because it has the ability “to evoke the stor[y] of [a] historical [...] perso[n]” (141). To quote Ryan et al., “[t]he narrativity of commemorative [urban texts] is a function of their association with (possibly exemplary) biographies” (143), which is also the function of the text in this case. The textual information on the monument, that is the poet’s year of birth and death as well as his status, “locates [his] name in history,” something that “entails prior knowledge” of history (Ryan et al. 145, 144); however, this text may also encourage the participants to learn about history (144) and in this case to be informed about the poet and his contribution. The combination of the locative text and the text in the material space of the monument embellishes and enhances our understanding of space while also adding to its three-dimensionality, an idea that will be elaborated on further down. The narrativity of the monument is augmented by the text that is inscribed below the statues that are located behind the poet’s statue, where the following text is written: “Poetry and patriotism gave of their laurel and oak from which Erin weaves a wreath

for her heroes.” This text adds further information about the poet, since Erin, which is another word for “Ireland,” alludes to Boyles’ Irish origins. Even the locative text acquires an educational dimension, as it also boosts the participants’ knowledge about the poet’s work, by familiarizing them with one of his poems. In this manner, it complements the narrative experience by adding to the already existing narrativity of the toponym itself. This additional layer is indicative of the ability of locative narratives to deepen our historical awareness by spatializing it. One might as well go so far as to argue that the locative text could be seen as a story in itself, as it constitutes a mental image of the man reading O’Reilly’s poem, informing an imaginary narratee — probably the participants themselves — that it is his favorite one by O’Reilly. Moreover, if viewed in relation to Whittaker’s definition of narrative, who argues that “a representation becomes a narrative when the relations between subjects and objects are articulated in relation to the reader or participant” (65), the man reading O’Reilly’s poem can be regarded as a narrative if the participants in *Fens* relate to it by considering themselves the audience to whom the man reads the poem.

Walking further down in the Back Bay Fens, the participants listen to two more poems being read, whose writers and titles are not revealed this time by the narrator. This adds to the experiential value of the two texts in challenging the participants to trace their potential connection with the surrounding environment at least temporarily. This creates an effect of spatial indeterminacy, boundlessness, and confusion, or multi-stability, in Whittaker’s words, an effect also encountered in the field report “Ducks” in *The Silent History*. However, the participants in the *Fens* narrative discover a plaque while walking, which is dedicated to Katherine Lee Bates, as the inscribed text on the plaque also reveals. Still, it is not clarified whether the afore-mentioned poems were written by Bates. The plaque possesses a greater degree of narrativity than O’Reilly’s monument because the additional text that is inscribed on the plaque provides ample historical information, stating that Bates “gave [an] enduring speech

to the love of Americans for America,” but also providing the first verse of Bates’ poem entitled “America the Beautiful.”¹²⁵ Although still “devoid of a narrative structure and its underlying chronologies and causal linkages,” as Ryan et al. would argue, the text on the plaque possesses a high degree of narrativity, directly “associating [the monument] with history and biography” (148, 145). This is because it acquaints the audience not only with a historical figure, but also with part of the “history behind [her] nam[e]” (159), that is to say an event — her speech — and a literary text — a poem that later became a patriotic anthem.

In the next example from *Fens*, the participants listen to the sound of a bell while walking. The participants soon manage to match the sound with the Temple Bell monument. As is the case with O’Reilly and Bates, the names and explanatory text here “belong to master-narratives of national and local history,” as they “stand for and encapsulat[e] [...] an account of an event,” thereby “weav[ing] history and memory into spatial and social practices of everyday life,” to use Ryan et al.’s words (142, 143). Indeed, as the textual inscription on the Bell informs, it was built in 1675 and was “[b]rought to the City of Boston by the Officers and Men of the United Ship Boston [w]ith the Blessing of the Manpukuji Temple-Sendai as a [s]ymbol of [f]riendship and a [b]ond of [p]eace” between U.S. and Japan. This seems to be closer to what Ryan et al. call a “landscape narrative” (161), which I am about to analyze further down. Despite the fact that “the historical even[t] being recounted” here is “reduced to brief, [...] formal, or even formulaic prose” (Ryan et al. 163), one could argue that this instance is indeed a narrative highlighting a historical event. Therefore, the ways in which *Fens* connects participants with place names allow them to view space not hierarchically, but as a network

¹²⁵ Katherine Lee Bates’s “America the Beautiful” reads as follows:

O beautiful for spacious skies
 For amber waves of grain
 For purple mountain majesties
 Above the fruited plain
 America America
 God shed his grace on thee
 And crown thy good with brotherhood
 From sea to shining sea (Monument text)

full of nodes that promote an expansive, inclusive, and interweaving way of understanding space and its historical value.

Other monuments in *Fens* to which the participant attention is drawn via locative sound and which possess narrativity due to the text that is inscribed on them are the Korean, Vietnam, and World War II memorials in the Veterans Memorial Park in the Back Bay Fens. The participants listen to the sound of military airplanes and a song (with no lyrics) by Nathaniel Braddock playing¹²⁶ when approaching the Veterans Memorial Park. Moreover, the inscribed text that can be found on the memorials “intend[s],” as Ryan et al. would claim, “to interweave remembrance into the everyday language of the landscape” (142). In particular, the inscriptions on the WWII memorial inform the participants that this specific memorial was erected in 1949 “in memory of the men and women of Boston who lost their lives on World War II.” The text on the plaque situated on the podium also informs that the park is “dedicated in honor of Sgt. Charles A. Mac Gillivray whose brave exploits on the battlefield symbolize the sacrifices made by all veterans especially those remembered here.” Following Ryan et al.’s theory, these inscriptions, coupled with the names of men and women inscribed on the Korean and Vietnam columns, “posses[s] narrativity” because “the narrativity of commemorative [...] names is a function of their belonging to master narratives of history and, not less important, to their capacity to evoke the stories of historical events and persons” (139, 141). The sounds of airplanes further immerse the participants in the narrative experience as well as increase the narrativity of the place, as they allude to the wars as historical events evoked in the minds of the participants, which recreates the feelings of sorrow, anguish, and possibly fear experienced during the wars; the title of the song, “Doesn’t Remember,” which is not disclosed to the audience though, can be viewed as an allusion to the kind of remembrance that is actuated through these memorials.

¹²⁶ The audience is not informed that the song that is playing is by Nathaniel Braddock.

This points to another tension on which Greenspan focuses in locative narratives: the one between the lyrical and the narrative element. Although Greenspan observes that the former is emphasized at the expense of the latter,¹²⁷ the narratives of the last level of experientiality verify that the lyrical aspect of the works is reconciled with their narrative aspect. It should be noted here that with lyrical, emphasis is placed on the song contained in the audio file the participants listen to, as already mentioned. This, combined with the actual site of the Veterans Memorial Park, intensifies their feelings and memories. The texts inscribed in O'Reilly's and Bates' monuments, and especially the latter's poems, can also be considered lyrical due to the combination of the poem's diction with the song material that is provided. However, I argue that it is the narrativity that is manifested in the monuments described above that defies Greenspan's argument, by creating a balanced combination of narrative and lyrical elements in *Fens*.

Going on with the discussion of highly experiential narratives, it should be noted that *Fens* combines locative sound/texts not only with toponyms and texts of low narrativity located in physical space, as already shown, but also with what Ryan et al. call "landscape narrative[s]" (161). In contrast with toponyms and monuments, which only possess narrativity, as already illustrated, landscape narratives "are [...] designed quite explicitly to tell stories" that are "inscribed or marked in the environment" (Ryan et al. 160, 161). This type of narratives is evidenced in the Victory Gardens, to which I referred earlier. The participants who listen to the radio announcement about Victory Gardens once they approach the area are offered the opportunity to be further informed about the gardens through what Ryan et al. call a "point narrative," which is the commonest type of landscape narratives (163). Point narratives, according to Ryan et al., "involv[e] narrating an event from a single point or place with a

¹²⁷ Specifically, Greenspan writes: "Locative theorists have de-emphasized the medium's narrative dimension while attending to its lyrical, archaeological and, most significantly, performative dimensions."

marker and are most commonly employed for events that are constrained spatially and temporally” (163). The narrative in Victory Gardens appears on the historical marker at the entrance of the Gardens area, familiarizing the participants with the history and value of the gardens. If combined with the radio announcement delivered via locative media, the landscape narrative complements the narrative experience by offering additional information to the participants. Moreover, the narrativity of both the Temple Bell and the Victory Gardens is intensified by the landscape narrative inscribed on the historical marker that is located near the two gatehouses in the Back Bay Fens.

This kind of combination of locative and landscape narratives is also apparent in *Times Beach*. In fact, in the Times Beach Nature Preserve a number of overlooks can be found, offered for birdwatching. Specifically, in the locative narrative that is attached to the Michael Hamilton overlook, the participants can listen to a man talking about a specific bird species, the red-winged Blackbird, and its behavior, explaining also the sounds it makes, which can be heard in the background of the locative narrative as well. These sounds, however, can also blend with the actual bird sounds the participants can hear in the physical space, creating the synesthetic and multilayered experience explained earlier. At the same time, the participants can discover further information about the history of the Times Beach Nature Preserve and its bird habitat on the point narratives situated as historical markers at the overlook. Interestingly, in the point narratives of the George K. Arthur observation blind that is situated close to the Michael Hamilton overlook, one can find out more information about bird species, but also about bird calls; the latter are described on the marker in a similar manner that the narrator describes bird calls in the locative narrative, explaining also how they are pronounced verbally. This enables the participants to learn how to recognize and identify the bird sounds they hear at the nature preserve, but also contextualize all the bird sounds contained in the locative files of *Times Beach* by placing them in a narrative framework that is constructed by the point narratives at

the various overlooks of the preserve. Interestingly, in the point narrative situated at another overlook in the Times Beach Nature Preserve one can find information about the red-winged Blackbird and the pronunciation of its birdcall, something that the narrator in the Hamilton locative narrative explains as well. Therefore, the combination of these sounds with the information provided in the static print-centric landscape narratives forms a broader narrative. That is, locative and landscape narratives can co-exist. This combinatorial effect is created by the fact that the various pieces of information taken from different narratives can be semantically and thematically connected to form a comprehensible whole.

Considering the above examples in relation to the ones of lower experientiality, one could contend that narrative meaning is created aggregately, not merely through the interaction of the participants with the locative text itself and the elements of physical space this text addresses, as was the case in *The Silent History*, but through the *verbal* cues that the landscape offers in historical monuments, memorials, signs, and plaques as well as the actual soundscape of the two areas, the Back Bay Fens and the Times Beach Nature Preserve. In fact, to quote Ryan et al., “[w]ith historical information added to them,” these textual inscriptions “perform as entries in an ‘open-space’ encyclopedia scattered all over the” two areas (145). The participants engage in a process of free spatial exploration, collecting clues that, if combined, lead to embodied knowledge, as was the case in the highly experiential field reports in *The Silent History*, or better “ambulant knowledge,” to use Pope terms once again. In line with this, polyaesthetic reading, to which I referred in the section on *The Silent History*, takes on a different meaning if viewed in relation to the above cases. As Engberg and Bolter highlight, “[a] polyaesthetic mode of reading consists of a repeatedly shifting combination of sense and sense ratios” (184). If “[l]ocation-based reading has always demanded a different sense ratio from book reading, because [it] has always involved proprioception and a sense of space” (Engberg and Bolter 184), which was evident in *The Silent History* as well, here the addition

of landscape narratives in conjunction with locative narratives enhances this kind of proprioceptive narrative experience. Indeed, the participants significantly alter and shape the narrative experience of the works by resorting to various media, modes, and senses. The combination of locative and landscape narratives results into a narrative experience that is even more experiential than the one offered by the previous narratives, as it combines: (sedentary) reading of the landscape narratives, listening to the locative text, and embodied interaction with physical space, which derives from the locative text itself that prompts the participants to locate these landscape narratives.

This kind of proprioceptive reading of *Times Beach* and *Fens*, I suggest, could be considered to complement Rueb's "landscape approach to locative media," according to which, "[l]andscape and the body are mutually constituted in mobile experience" ("Restless" 243). The insertion of landscape narratives in the narrative experience not only reflects Rueb's intention to "draw upon landscape as a first framework for understanding mobile experience" (243), but also it reconditions and redefines the relationship between landscape, text, and body in *Times Beach* and *Fens*. Ryan et al. also note that such kinds of "mixed and blended narrative strategies are particularly interesting from the standpoint of narrative theory" because they "help to show the fluidity of available forms," locative media in this case, "and how often they can be used in combination with new types of narrative form" (205),¹²⁸ namely landscape narratives, in order to generate an essentially multilayered and polyaesthetic effect. Ultimately, it is through these landscape narratives that the participants remain connected with the physical space while participating at the same time in the narrative experience they activate, which is what Greenspan aims to achieve with StoryTrek as well. The participants listen to the locative narratives without being isolated from the real world, as they immediately connect with their

¹²⁸ Essentially, Ryan et al. do not refer specifically to locative media here; however, I stress the combination of landscape and locative narratives here as an additional aspect to her theory, as I will also mention further down.

surroundings by being encouraged to even learn about the landscape and its history. It is through the combination of different narrative strategies then that *Times Beach* and *Fens* subvert sedentary practices and neutralize the tension between the latter and the embodied interactivity evoked in locative narratives.

All things considered, in this chapter I have sought to illustrate alternative ways to neutralize the tension to which Greenspan refers existing between sedentary print-centric locative narratives and embodied interactivity. I have claimed that the experiential value of locative texts can be used to determine the extent to which a locative narrative departs from sedentary print-centric reading practices. While StoryTrek promotes a dynamic kind of reading that most locative narratives lack, as Greenspan attests, the texts I have chosen to analyze also promote a dynamic kind of reading, which also fosters embodied interaction and knowing, as the audience is given the opportunity to actively alter the narrative experience created by these texts. If *The Silent History* serves as a compelling metaphor in its effort to reconcile the aforementioned tension, *Times Beach* and *Fens* seem to provide an equally strong reconciliation between these two opposing elements through the combination of locative and landscape narratives. While these texts do retain sedentary reading practices, they also achieve narrative transportation or immersion into the storyworld without isolating the audience from the real world. Importantly then, all three works analyzed in this chapter can be viewed as examples of what Whittaker calls “expanded narrative,” since they “present a *challenge to a particular form of storytelling, fiction or nonfiction,*” while “participant engagement with narrative [...] does not [...] disregard ‘static’ representations of a [writing]” (51, 52; emphasis in the original), namely the e-book and the audio book in these cases. This being so, the very fact that these works remediate the print-centric practices pertaining to the e-book and the audio book ought

not be regarded as problematic, since these texts challenge print technologies in different ways, as already proven. In other words, these works combine conventional with innovative locative reading practices, thus neutralizing the tension that exists between those two types of practices. Another reason why this kind of remediation ought not be viewed as a drawback is that, in remediating print-centric practices, these texts eventually construct a continuum from print to locative reading practices; the juxtaposition between print technologies and locative media leads in turn to an appreciation of the latter as descendants of the former.

Ultimately, my aim through the analysis of these works has not been to propose and develop a novel theory for locative narratives but to explicate how current theories of locative narratives, namely Greenspan's, can be updated, upgraded, and expanded. In particular, through my analysis of *The Silent History*, I have stressed the complementary relationship between locative media and print-centric technologies, as this becomes also evident through the narrative's themes. In the case of *Times Beach* and *Fens*, locative narratives function in tandem with what Ryan et al. call "landscape narratives," which render the narrative experience offered by the locative texts as multi-layered. What the analysis of the texts I have chosen to analyze in this chapter illustrates is Ryan et al.'s realization "that narrative is a type of meaning that transcends disciplines and media by bridging together examples from fiction, [...] games, toponymy, [and] historical sites" (226). To this list I add locative narratives,¹²⁹ not only fictional but also nonfictional, in order to stress their relationship with other forms of writing and media.

In the final chapter of the present project, I will explore the ways in which locative mobile gaming, viewed as another instantiation of locative media storytelling practice, further reconfigures the relationship between virtual and physical spaces as well as the concepts of narrativity and textuality.

¹²⁹ Ryan et al. also mention cartography and museums, which is not the subject matter of this dissertation, however.

CHAPTER THREE

Re-Visiting Locative Gameplay through Hypertextual Practices: *Ingress* as a Post-Hypertext Form (of Game and Narrative)

Hypertext is dead. Long live hypertext — Scott Rettberg, “Posthyperfiction”

3. Introduction: Towards a Post-Hyperfiction Paradigm

While in the above epigraph Scott Rettberg seems to acknowledge the death of hypertext¹³⁰ as a narrative form, he paradoxically celebrates its regenerative power and rebirth — “Long live hypertext” (183)¹³¹ due to its current fusion with other types of digital narratives (“Posthyperfiction” 183). This being the case, his statement that “Hypertext is dead” might as well be taken metaphorically to denote the fact that hypertextual narrative forms and processes/practices should be constantly questioned. Following Rettberg’s frame of thinking, this chapter aims to shed light on current hypertextual applications, as is the case of the augmented-reality and location-based game *Ingress* (2012-), which is one of the most popular

¹³⁰ Hypertext was first introduced as a concept in 1945 with the publication of Vannevar Bush’s article entitled “As We May Think,” where he suggested the construction of “a mechanically linked information-retrieval machine, called a ‘memex’” (Carpenter and Taylor 41). Memex — short for “memory extender” — would serve as the prototypical hypertext machine, as it would be programmed to “organize diverse materials according to an individual’s own personal associations” (Bush 142). However, the term “hypertext” was coined in 1963 by Theodore H. Nelson, who defined it as “non-sequential writing” (165). Seen in this way, hypertext can ideally be approached as “text composed of blocks of words (or images) linked electronically by multiple paths, chains, or trails in an open-ended, perpetually unfinished textuality described by the terms *link*, *node*, *network*, *web*, and *path* (Landow 2). While “hypertext as a technological means to interconnect text elements was developed long before the introduction of the Internet,” it was inevitably associated with the World Wide Web (Ennslin 13). In fact, hypertext rapidly grew on the Internet after its launching in 1993 to the extent that hypertextuality became an essential characteristic of this new online technology. Indeed, as the most recent development of the Internet, the World Wide Web constitutes a user-friendly system for accessing information on the Internet as well as “the most celebrated and renowned example of a large scale hypertext system” (Bell 1). More specifically, the Internet is a vast international network that functions in a hypertextual manner, as it bears the non-sequential form of hypertext by providing links to lots of disparate bits of data on the web-pages; in other words, “the link-based method of hypertext [...] underpins the structure of the Web” (Castonguay 248). To use also Jane Yellowlees Douglas’s metaphor, herself being a hypertext practitioner, “hypertext is the ‘glue’ that holds the Internet together” (145), something that indicates the inevitable connection as well as the interdependence between hypertext and the Internet.

¹³¹ As Espen Aarseth notices, hypertext literature has been “associated [...] with the theoretical vogues of postmodernism and poststructuralism” (*Cybertext* 109). Aarseth talks about the “crisis of the text” in postmodernity as a result of its interaction with digital media (“Nonlinearity” 57). In celebrating multilinearity, fragmentariness, and indeterminacy, hypertext can then be viewed as part of the postmodern literary practices, but with a twist due to the insertion of the digital factor. Michael Joyce is considered to be the “father” of hypertext fiction, in that he has managed to renovate literature by introducing hypertext to the literary terrain of the late 1980s. His first novel, *afternoon, a story* (1987), constitutes a breakthrough in electronic fiction, and it is taken to be one of the first hypertext novels in the history of electronic literature.

locative games of the 2010s also accompanied by vast narrative presented in various forms and formats. While the previous chapters discuss locative media in relation to print and digital narrativity and textuality, the present chapter examines the storytelling potential of locative media gaming applications, while also contributing to the research that is conducted in the fields of narrative and game studies by conceptualizing locative games as hypertextual fictional narratives. The chapter positions the notion of hypertext within the context of third-generation locative games, of which *Ingress* is the prime example due to the way it tackles textuality, interactivity, and immersion.

Shlomith Rimmon-Kenan in her *Narrative Fiction: Contemporary Poetics* (2002) comments on “an ever-changing, open-ended creative process—indeed, a perpetual ‘towards’” (154) when it comes to narrative practice. It is from this perspective that this chapter will attempt to approach the hypertextual elements of locative gaming being caught up in a perpetual “towards” or becoming or mutation of reading strategies and narrative structures that are triggered through locative play. Rettberg, in “Posthyperfiction: Practices in Digital Textuality,” refers to the efforts nowadays in rediscovering and reinventing the American hypertext novel, which, “after being quickly discovered, developed, [and] evolved[,] [...] was then abandoned” (182). Not only does the author observe that “the theoretical underpinnings, structural elements, and narrative techniques of hypertext have migrated into other forms of digital narrative[,]” but he also predicts “that authors will return to the hypertext, embrace its comparative computational simplicity [...], and will develop its future even as they learn from its past” (183). Certainly, these arguments should be viewed in conjunction with his other article, “The American Hypertext Novel, and Whatever Became of It?,”¹³² where he calls attention to the novel types of narratives that have emerged in the twenty-first century due to

¹³² Both articles, “Posthyperfiction: Practices in Digital Textuality” and “The American Hypertext Novel, and Whatever Became of It?,” are included in the edited volume *Interactive Digital Narrative: History, Theory and Practice* (2015), and together they form Scott Rettberg’s theory of posthyperfiction.

the advent and ubiquitous presence of mobile and locative technologies (33-34).¹³³ The author explicitly states that although hypertext is dead, it “has provided the basis for other emergent narrative forms within an increasingly diverse range of experimentation in narrative for digital media” (“Hypertext Novel” 34). In line with the above, in this chapter attention will be paid to the examination of *Ingress* in conjunction with Rettberg’s predictions about the rebirth of hypertext. Viewed under this prism, *Ingress* will be examined as a (locative) “posthypertext digital narrative” (176), to use Rettberg’s terminology, as well as a remediation of screen-based hyperfiction¹³⁴ and early computer games by blending hypertextual reading strategies with locative game elements and other narrative forms and modes of gameplay. While Chapter One remediates locative projects in print fiction and Chapter Two remediates as well as extends sedentary print-centric practices in locative (fictional and non-fictional) narratives, this chapter remediates digital narrativity through locative play. The present chapter will strive to show how hypertext theory is informed by and combined with locative practices/theories and narrative theories in an attempt to explore how the concept of narrativity is affected and reconfigured when older forms of digital media, such as hypertext, converge with more recent digital forms, such as locative media.

Nevertheless, the correlation between hypertext and locative media is by no means innovative, since other critics have already referred to it. Rettberg, for example, provides links between these two digital forms by characterizing locative narratives as hypertexts.¹³⁵ Moreover, Charlie Hargood et al., Mark J. Weal et al., and David E. Millard et al. apply the hypertext form to locative narratives and games, as I will demonstrate later in the present

¹³³ Specifically, Rettberg writes: “As more and more devices, such as smart phones, locative devices, iPads and other tables [*sic*] began to proliferate, there was also a shift away from works designed specifically for the desktop computer and towards types of narratives suited to these new environments” (“Hypertext Novel” 33).

¹³⁴ It is important to note here that in the present chapter by screen-based hypertext I mean hypertext that exists only on the computer/mobile screen and is *not* generated via locative means nor is it attached to specific locations.

¹³⁵ In particular, Rettberg states: “Nonlinear interactive narrative also moved from the web browser to other spatial environments, including the physical world. The hypertext project *34 North 118 West*, produced by Jeremy Hight, Jeff Knowlton and Naomi Spellman in 2003 is one notable example of locative narrative” (“Posthyperfiction” 177).

chapter.¹³⁶ The value of the current analysis though lies in its exploration of the ways in which the hypertext narrative form is constantly changing by being re-invented, challenged, subverted, and/or extended through locative play, and specifically, while playing *Ingress*. Locative and hypertext narrative theories as well as video game theories can be combined in order to discuss the role of narrative in *Ingress*, something that has not been attempted so far. The application and combination of these theories trigger new conclusions to be drawn about the notions of hypertextuality and narrativity in relation to (new-generation) locative games of the 2010s.¹³⁷

Ingress is an augmented-reality location-based game application that was developed by Niantic, Inc., an American corporation owned by Google. The game was released as a beta version in 2012 for a year and it is still being played on mobile phones. On November 6th, 2018, *Ingress* was updated and turned into *Ingress Prime*, a renewed version of the previous *Ingress* game that has retained most of the old features, albeit with major changes in the interface. The previous version of *Ingress* also continued to be available as a mobile app with the title *Scanner Redacted*, but it was withdrawn on September 30th, 2019,¹³⁸ that is after the research for the present chapter had been completed. Even though certain elements in the *Ingress* game and story world stopped being available by the time this Ph.D. project was completed, references to them will be made in the present chapter. Analyzing these specific aspects of *Ingress* adds to the historical depth of the present project, as it enables one to view how *Ingress* was initially

¹³⁶ The three articles written by these authors comprise the theories of sculptural locative hypertext that will be used and analyzed in the present chapter in relation to *Ingress*. Interestingly, David E. Millard coauthors all three articles.

¹³⁷ Markku Eskelinen has argued that “It should be self-evident that we can’t apply [...] hypertext theory [...] directly to computer games” (“Game Studies” 36). Locative games challenge this view, since, as I am about to prove in this chapter, different hypertext narrative forms can be applied to *Ingress*. Similarly, Noah Wardrip-Fruin and Pat Harrigan have noticed that there is a “natural outgrowth of creating new media from a hypertext perspective” (166). This is exactly the case with locative media, which can be examined in correlation with hypertext theory.

¹³⁸ To avoid any kind of confusion, in the present chapter I will refer to the game and narrative simply as *Ingress*, since most of the features I will be analyzing in this chapter are common in both *Scanner Redacted* and *Ingress Prime*. However, if need be, I will specify in my analysis to which of the two apps I will be referring.

conceptualized, but also to realize that *Ingress* is not a static, but a constantly growing, dynamic game/text, as will be shown in the commentary to be provided here. Examining the ways in which *Ingress* evolves, one can appreciate the ways in which (locative) technology is constantly reconfigured and reconditioned. Ultimately, the value of the present chapter lies in its focus not only on the storytelling potential of locative gaming, but also on the ways in which *Ingress* challenges the concepts of narrativity and textuality. Having said this, I will proceed to a brief description of the *Ingress* game and narrative.

Ingress involves the virtual augmentation of real-world locations — which are called portals in the *Ingress* universe — with which users are asked to interact in order to play the game: the virtual map on the mobile phone screen corresponds to the physical urban space that is to be traversed by users/players. The portals are real-world monuments or places of particular historical and/or socio-cultural significance. *Ingress* also features a science fiction storyline, according to which, each portal emits a specific kind of energy called “Exotic Matter” or “XM,” which is sent by a mysterious ancient alien civilization called the “Shapers” in their attempt to control humanity and the human mind. As was the case in the previous chapters of this dissertation, the present analysis will not concentrate on the science fictional elements of the game per se, but the reference to its science fictional backbone helps comprehend its source of origin. In featuring a science fictional plot, *Ingress* does confirm Marie-Laure Ryan’s view that, in contrast with “‘high’ literature[,] [which] focuse[s] on existential concerns, psychological issues, and moral dilemmas,” “the game industry [...] has been sticking so far to stereotyped narrative themes and formulae” drawn from well-established genres such as science fiction among others (*Avatars* 195-96, 195). This is because science fiction is “much more adaptable to the interactive and fundamentally visual nature of games than” other types of literature, which “[seek] the gray area of the ambiguous” instead of the binary between good and evil in which “games and popular genres thrive” (195, 196). *Ingress* players are thus given

the opportunity to join one of the two factions/teams, the Enlightened and the Resistance, with the former fighting for the progress of humanity, while regarding the XM as beneficial and enlightening for human beings as their very name reveals, and the latter considering the Shapers and the XM to be the ominous ones. In order to play the game, players of each faction need to link three portals together for the formation of virtual triangles, called “fields,” in the urban space.

A significant element that differentiates *Ingress* from other locative games is the incorporation of a vast narrative that is presented in various forms. Larissa Hjorth has correctly noticed that “[a]s we approach the end of the first decade in the twenty-first century, games are providing a variety of alternative and mainstream forms of storytelling (145). As a game that was launched in the early 2010s, *Ingress* seems to epitomize this observation. In a video that can be found on the *Ingress Prime* website, it is stated that “*Ingress Prime* is part of a new movement in gaming, combining a mobile social experience with a vast and immersive fictional [narrative]” (“The Ingress Story”). Although this relates to *Ingress Prime*, it was also applicable to the old version of *Ingress*. Although other locative games include narrative components as well, what changes now is that the vast science fictional narrative world built around the *Ingress* game is presented to the players in multiple forms and is accessed through multiple channels and social media platforms as well as other websites, an element that renders the game more easily accessible to its players. Moreover, the *Ingress* narrative comprises short-period story-cycles of about three months, revolving around game events called anomalies. These events, which will be explored further down in more detail, take place in various cities around the globe and involve the attempt of the two factions to control the XM. As I will argue, the *Ingress* narrative features a multi-form locative hypertext narrative that is disclosed while interacting with portals as well as a web-based hypertext narrative in the form of a timeline and as

an ARG or alternate reality game narrative.¹³⁹ My aim in this chapter is to investigate all these narrative manifestations of the *Ingress* storyworld and how the idea of hypertext is challenged, questioned, and extended through this multi-form narrative. By seeking to reveal the multiple narrative and textual forms that emerge from the application of locative media technologies in digital gaming, this chapter explores the ways in which the concepts of narrativity and (hyper)textuality are challenged by these technologies.

For an effective exploration of the ways in which hypertext functions in *Ingress*, emphasis will be placed on the (hypertextual) narrative potential of the game. The analysis of *Ingress* will be divided into three sections in which different forms of narrativity and hypertextuality will be explored. The first section will approach *Ingress* as a locative hypertext due to its interaction with locations/portals. That is, it will explore the extent to which interactive locative gameplay contributes to the production of narrative through the missions, glyph-hack sequences, and media narratives the users generate via the *Ingress* app. Emphasis will also be placed on the ways in which the hypertext form is challenged by resorting to Ryan's theories on interactivity, immersion, and dysfunctionality. The second section will investigate how *Ingress* can be explored as a screen-based hypertextual archive/database, following Ryan's and Lev Manovich's theories about the database and narrative. The third section will explore how the full narrative potential of *Ingress* as a storytelling machine is revealed, examining at the same time how social media practices may further contribute towards embellishing the *Ingress* storyworld. The ways in which the gaming and narrative elements of the *Ingress* universe can be reconciled will also be investigated in the final section. In this light, attention will be paid to the ways in which *Ingress* transforms from a strategic and abstract game to a posthypertextual reading experience as well as a game whose storyworld is gradually

¹³⁹ Alternate reality gaming or ARG is a "kind of gaming [that] blurs reality and fiction" (Miller 163). As I will show in the last section of this chapter, *Ingress* can be considered an example of ARG.

(but only potentially) revealed by the users through their locative gameplay. Particular emphasis will be placed on the ways in which the users interact with the multiple manifestations of hypertext that are evident in *Ingress*: the sculptural locative hypertext, the screen-based multimedia hypertext, the archival hypertext, and the ARG hypertext. Importantly, the *Ingress* Reports, which will be frequently referred to throughout my analysis in all sections of the present chapter, constitute another way through which the *Ingress* fictional narrative is delivered to the players/readers. These are *YouTube* videos in which the fictional journalist, Suzanna Moyer, reports weekly news about the *Ingress* storyworld, including information about the players' achievements and the fictional narrative of *Ingress*.

Furthermore, the above segmentation of the chapter invites multiple ways of experiencing *Ingress*. Certainly, not all the types of hypertext that will be analyzed here can be applied to all locative games, since each game has its own particularities and specificities. However, the current chapter intends to demonstrate the different variations of hypertext that might emerge if one applies hypertext theory to locative games, with *Ingress* serving as a case study due to its multilayered and hybrid structure. This being the case, *Ingress* is presented as a mobile app as well as a post-hypertextual reading interface that enhances the gaming experience in multiple ways. Before proceeding to the actual analysis of *Ingress*, it is worth calling attention first to how it relates to the early locative games of the 2000s. Such a historical overview of location-based gaming will position *Ingress* within a much broader cultural framework with regard to locative games and will shed light on their evolution.

With location-based games constituting a manifestation of locative media technologies,¹⁴⁰ artist groups started experimenting with them immediately after the

¹⁴⁰ Dale Leorke notices that “[l]ike locative art, many location-based games sought to re-engage players with the public spaces of the city, reappropriating everyday urban locales as sites for competitive play and social interaction” (134).

popularization of GPS technology in 2000.¹⁴¹ Indeed, location-based games hark back in the early 2000s. Some of the first generation of such games developed in Europe, as is the case of *Can You See Me Now?* (2001) by “Blast Theory” and *Botfighters* (2001) by the Swedish company “It’s Alive.”¹⁴² All these games can be regarded as predecessors of *Ingress*, sharing with it the use of locative media technologies for the tracking of the players’ position in the urban space, the expansion of the magic circle¹⁴³ beyond the virtual space of the computer, and the use of both digital and physical urban spaces as part of their gameboard. While those games were played on PDAs and laptop computers in the early 2000s, the advent of GPS-enabled mobile phones signals the emergence of the second-generation locative games (Gordon and de Souza e Silva 70), such as *Uncle Roy All Around You* (2003) and *Day of Figurines* (2006) by “Blast Theory” once again.

The rest of the decade of 2000 witnessed the production of locative games in different cities in the U.S. which have been classified according to Markus Montola et al.¹⁴⁴ as

¹⁴¹ Paul Coulton et al. state that “the concept of ‘location based’ game came to the fore with the removal of ‘Selective Availability’ from the GPS network in May 2000” (144). Gibson himself also refers to Selective Availability in *Spook Country*, as I showed in the first chapter of this dissertation.

¹⁴² It is important to state that a reason why a U.S.-produced locative game is worth exploring is the fact that, while locative games have so far been produced mostly in other countries, mainly European, one of the first locative games, *Geocaching* (2000), was developed in the U.S. Moreover, the U.S. has recently been very active in the production of locative games that bear the form of smartphone applications, such as *Ingress* (2012) and *Pokemon Go!* (2016).

¹⁴³ While the magic circle was first introduced as a concept by Johan Huizinga in *Homo Ludens: A Study of the Play-Element in Culture* (1949), several authors have re-appropriated it in order to talk about LBMGs. In *Digital Cityscapes: Merging Digital and Urban Playspaces* (2009), Adriana de Souza e Silva and Daniel M. Sutko write that Location-based Games (LBMGs) “incorporate the pre-existing architecture of the city into the gameplay, thus challenging the concept of the magic circle as a predefined game space. In fact, they equate the magic circle with the urban space” (7). In another article with the title “Hybrid Reality and Location-Based Gaming: Redefining Mobility and Game Spaces in Urban Environments,” de Souza e Silva also notes that “the ‘magic circle’ occupies the whole city, becoming an imaginary playful layer that is overlaid on and merges with the urban space” (405). These observations about the magic circle apply to *Ingress* as well.

¹⁴⁴ Markus Montola et al. write about this new type of gaming: “The very term *pervasive game* was probably coined in the year 2001, when *The Beast*, *Majestic*, and *BotFighters* were launched. These were games that shamelessly defied the usual boundaries of play. [...] This new family of games has been called by many names: *adaptronic games*, *alternate reality games*, *ambient games*, *appropriative games*, *augmented reality games*, *big games*, *brink games*, *context aware games*, *crossmedia games*, *geogames*, *hybrid games*, *immersive games*, *invasive games*, *location-based games*, *locative games*, *massive games*, *mixed reality games*, *mobile games*, *pervasive games*, *reality games*, *supergames*, *total games*, *transreality games*, *ubiquitous games*, *urban games*, and so on. The plethora of similar yet not identical labels illustrates not only that pervasive games are part of the zeitgeist, but the difficulty of grasping this new playing field” (xix-xx; emphasis in the original).

“pervasive games,” because they “expand the contractual magic circle of play spatially, temporally, or socially” (12); Jane McGonigal in her Ph.D. dissertation entitled *This Might Be a Game: Ubiquitous Play and Performance at the Turn of the Twenty-First Century* (2006) distinguishes them between pervasive, ubiquitous, and ubiquitous computing games; and Adriana de Souza e Silva and Larissa Hjorth classify them into “urban, location-based, and hybrid-reality mobile games” (602). Although it can be acknowledged that each one of these game types features special characteristics that render them unique, this variety of names creates a certain kind of confusion as regards the nature of these games. As Montola et al. underline, the great number of names that have been used so far to describe such games reflects “the difficulty of grasping this new playing field” (xx).

Another major contribution to the field of locative gaming was brought forward in the early 2010s with the U.S. playing a leading role: Google enters the field of locative game production on a global level with *Ingress*. To my view, certain technological developments have been key in the emergence of what I consider it to be the “third generation” of locative games, with *Ingress* being a representative example. Even the motto of the *Ingress Prime*, “Change is Here,” corroborates a change in the locative gaming landscape,¹⁴⁵ which actually started with the popularization of smartphones that featured various software applications that significantly changed the landscape of locative gaming. As Dale Leorke observes, “[i]t was not until 2011 and 2012 [...] that location-based games began to receive more consumer and critical attention” because they no longer appeared to be “artistic and commercial experiments on the periphery of the digital games industry,” but instead they were “apps released in the

¹⁴⁵ Such shifts in the locative gaming industry ought to be viewed in conjunction with a broader change in the gaming landscape that was caused, according to Tama Leaver and Michelle Willson, by the “multiplicity of devices” (2) that have flooded the market. The authors signal a new era in which there is a debate over whether new game genres can be regarded as games: “[T]he biggest change in the gaming landscape is the increase in the range of devices and platforms in which games can be played” (1). *Ingress* can be viewed as the outcome of the multiple convergences that have been observed in the gaming landscape in the 2010s with the emergence of multiple platforms in which games can be played as well as the insertion of vast narratives in games.

highly competitive mobile gaming market” (139). *Ingress* seems to signal the commercialization and popularization of locative games as mobile apps, and this is what differentiates them from the locative games of the 2000s due to the shift from experimental and artistic to commercial and mainstream locative gaming.¹⁴⁶

In addition, the production of more sophisticated augmented reality (AR) technologies should be considered part of the changes that have occurred in locative games. Of particular relevance here are Bryan Alexander’s observations that while he was writing his book *The New Digital Storytelling: Creating Narratives with New Media* (2011), augmented reality developments were progressing at a high rate and speed (172). As a result of this, Alexander predicted the emergence of new platforms in the near future because “Google and Microsoft [were] each developing AR layers for the visible universe” (172). Alexander relates the concept of narrative with AR technologies, predicting also that “[w]e can imagine a variety of stories based on [...] science fiction, astronomy, history of science” (172). Regardless of whether or not Alexander had *Ingress* in mind while writing this, it should be noted that *Ingress* seems to epitomize his observations, as it displays an augmented-reality environment with the game being built around a science fiction narrative.

This has led to the blurring of boundaries among the different game types that use the urban space as a gameboard. New-generation locative games by Niantic, Inc., as are for example the cases of *Pokémon Go!* (2016) and *Harry Potter: Wizards Unite* (2019), display characteristics from multiple game types, thus being hybridized. For instance, *Ingress* is an augmented-reality location-based game that shares elements from ARGs (Alternate Reality

¹⁴⁶ Leorke recognizes that *Ingress* “signal[s] that location-based gaming has perhaps at last become a mainstream, commonplace pastime for smartphone users” (139). It is interesting to note that this shift from experimental to mainstream locative gaming has been predicted by Matt Adams, one of “Blast Theory” artists, in his interview to de Souza e Silva and Sutko in 2007. Adams states: “I’m convinced URAAY [Uncle Roy All Around You] and CYSMN? [Can You See Me Now?] are pointers towards mainstream cultural products. I don’t think there’s any doubt that that will happen. It’s a question of how soon or in what form” (79).

Games)¹⁴⁷ and MMORPGs (Massively Multiplayer Online Role-Playing Games), but it can also be regarded as a hybrid reality game, given the fact that it takes place in both the virtual and the physical space.¹⁴⁸ This being the case, the analysis of *Ingress* as a form of hypertext in this chapter serves as a methodological tool that will be used to bridge the fictional world of *Ingress* with its gameplay elements. I will thus begin my analysis by calling attention to the concept of sculptural hypertext and how it can be applied to *Ingress*.

3.1 *Ingress* as a Sculptural Locative Hypertext

The term “sculptural hypertext” was first introduced by Mark Bernstein and Diane Greco, but it was also used by other critics to demonstrate how the hypertext form can be applied to location-based narratives and games. Particular attention will be paid here to how *Ingress* can transform from an abstract sculptural locative hypertext where the storyworld is not emphasized narrative-wise into a sculptural locative hyperfictional narrative. Emphasis will be placed on how strategic locative space is constructed through locative gameplay as well as on the different forms of textuality and narrativity displayed by the various *Ingress* locative hypernarratives. Finally, the notions of immersion and interactivity will be explored in relation to the *Ingress* locative hypertexts.

To begin with, in “*Card Shark* and *Thespis*: Exotic Tools for Hypertext Narrative,” Bernstein and Greco differentiate between traditional hypertext forms which are referred to as “calligraphic,” in which authors “create structure by adding lines until [they] have added

¹⁴⁷ In “Ludic Re-Enchantment and the Power of Locative Games,” Suely Frago and Breno Maciel Souza Reis investigate *Ingress* as an Alternate Reality Game, and more specifically, as a Locative ARG. They write that “Alternate Reality Games (ARGs) are games which deliberately integrate fictional narratives with real world experiences. Locative ARGs (LARGs) are a subtype of ARGs in which this integration is strongly linked to physical space, usually public urban spaces” (259).

¹⁴⁸ In “Playing Life and Living Play: How Hybrid Reality Games Reframe Space Play,” de Souza e Silva and Sutko note that “[h]ybrid reality games (HRGs) [...] create a multiuser game space that occurs simultaneously in physical, digital, and represented spaces as denoted by the player’s mobility” (447).

exactly the necessary degree of connection,” and “sculptural” hypertexts, where authors “create structure by removing unwanted connections, much as a sculptor may create form by removing unwanted stone” (171). Weal et al. borrow these terms to discuss locative narratives and games by explicating further the difference between sculptural and calligraphic hypertext. They write that “[c]alligraphic hypertexts are constructed by adding links to initially-unlinked nodes until the desired connections are created[,] while [s]culptural hypertexts begin with nodes that are, initially, completely connected [and] the writer removes links until only the desired connections remain” (emphasis in the original). Hargood et al. also argue that sculptural hypertext, which “is an approach to hypermedia[,] [...] lends itself to broad open narratives with a high degree of potential interconnectivity as only the restrictions must be defined, not the connections, in contrast [to] calligraphic hypertext [that] lends itself to more controlled linear experiences where the number of possible connections is smaller.” On the basis of all the above terms and definitions, it can be observed, for example, that the architecture of space in Storyspace-assisted,¹⁴⁹ calligraphic, screen-based hypertexts together with the links that they contain have been determined by the hypertext author and software programmer, while in the sculptural hypertext of locative games, the links pre-exist. This being the case, *Ingress* functions as a sculptural hypertext, since, in contrast to calligraphic hypertexts, in *Ingress* all the portals that it contains are initially linked or rather they can potentially be linked together, as is the case with the sculptural hypertext. Thus, by following specific linking rules, serving as “restrictions” in order to use Hargood et al.’s words, the *Ingress* players aim to link three portals together for the formation of what is called “fields” in the game. This means that they can link specific portals by hacking them first, which is a procedure that grants players virtual/digital objects like shields, mods, and keys, that can be used in a variety of other

¹⁴⁹ Storyspace is a hypertext software program distributed by Eastgate Systems and constitutes one of the most popular tools for creating hypertext literature, “allow[ing] the user to organize and interlink text and graphics without complex programming” (Paul 266).

processes in the game, for example to defend and protect a portal from being attacked and captured by the opponent faction. Another restriction that the game poses to the players is that the link between two portals must not intersect another link, which means that if the players want to link these portals, they need to first destroy the intersecting link(s) and then create the link they want. In this light, *Ingress* bears a sculptural hypertext form because, as Hargood et al. argue, in the case of such a type of hypertext, “all nodes are linked together, but these links are then prohibited by rules and constraints (such as the requirement that a different node be visited first) sculpting away the links into an eventual structure.” By establishing links between portals, players remove, or in other words “sculpt away,” to use Hargood et al.’s words, all the potential links that could be drawn, even hypothetically, among portals. By removing all these potential or hypothetical links, players construct or sculpt the eventual form of the hypertextual environment within which *Ingress* can be played, which can be visualized on the mobile phone screen.

As regards the *Ingress* players, they can choose to be either mere players of the game or actual readers of the locative narratives included in it. In this regard, players assume different roles in *Ingress*, in a similar manner that players in computer games do so; they can thus be killers, achievers, socializers, and explorers, to use Ryan’s description when she refers to the players’ role in computer games (*Avatars* 199).¹⁵⁰ *Ingress* players share characteristics of all these four categories depending on the ways in which they choose to experience *Ingress*. Players who do not play for the narrative are only killers and achievers, considering “the game-story as a quickly forgotten, disposable commodity, good only to provide clues for progressing

¹⁵⁰ Marie-Laure Ryan writes: “[k]illers and achievers are primarily *ludus* players, socializers and explorers *paidia* players” (*Avatars* 199; emphasis in the original). Roger Caillois categorizes games “on a continuum between two opposite poles,” with “*paidia*” being a free form of play, and “*ludus*,” which characterizes a more structured, ruled-bound form of play (13). *Ingress* seems to be a combination of *ludus* and *paidia*. It is important to note, however, that, although reference to gaming theories will occasionally be made in this chapter, no specific gaming theory will be applied to *Ingress*, but instead an attempt will be made further down to reconcile the game and narrative elements of *Ingress*, which is one of the primary concerns of the current analysis.

in the game” (199). On the other hand, while investigating the locative hypertexts, players become socializers and explorers, as I will demonstrate later in this chapter. For this reason, I will be using the term “users” in this chapter in order to encapsulate all the ways of experiencing *Ingress*, and will only use the terms “players” and “readers” when it is necessary to refer to the modes of playing and reading respectively.

Concentrating first on the strategic function of locative space, which relies on the creation of links and fields in an effort to level up the game, one notices that *Ingress* players can choose to concentrate solely on its gaming rather than its story elements. In this light, *Ingress* turns into an abstract game or an abstract sculptural locative hypertext. It is actually the users’ physical movement that triggers the narrative. What is implied here is that these narratives are digitally attached to specific locations, or better, actual urban spaces are geo-annotated. Users can visit locations in order to be able to expose the narrative content attached to these locations, as will be shown in relation to *Ingress* further down. Additionally, if the notion of hypertext is applied to locative games, one could hypothetically assume that locations, or portals in the case of *Ingress*, serve as *lexias* in screen-based hypertext.¹⁵¹ However, this is not exactly the case, since sculptural locative hypertexts in games do not function as calligraphic screen-based hypertexts with regard to the way they are linked. Millard et al. explain the function of the (hyper)link in both traditional navigational hypertext and in sculptural hypertext, arguing that in the former “a link combines two purposes: it moves the reader’s view to a new piece of content, and it moves the reader’s state conceptually through the narrative.” It should be mentioned again here that the players’ movement from one physical location to another cannot be controlled by the author of the narrative content that is attached to various locations, since their movement cannot be predicted: players are free to follow

¹⁵¹ The word “lexia” was coined by the French philosopher, Roland Barthes. Although Barthes was not referring to hypertext when he invented it, the term was actually adopted by critics and theorists to describe the structure of hypertext. Barthes writes: “[t]he tutor signifier will be cut up into a series of brief, contiguous fragments, which we shall call *lexias*, since they are units of reading” (13).

whichever route they wish in locative space (Hargood et al.). In line with this, it could be claimed that moving in the space of *Ingress* is totally different from moving in the traditional navigational hypertexts, since movement here does not signal any progression in the location-based narrative. In *Ingress* such an action or movement from one node to another in space also fulfills a ludic purpose: to level up in the game. In other words, in sculptural hypertext, as it is formed in *Ingress*, even when players choose to ignore the conceptual progression in the narrative, they engage into an abstract locative play mode, with attention paid to the gaming aspects of *Ingress* and not the revelation of narrative. However, as I will demonstrate in the last section of this chapter, even such abstract locative gameplay does affect narrative content after all.

In this light, the *Ingress* gameplay involves action in locative space, which is created through the players' movement in the urban space. As is the case in *Spook Country*, a liminal hybrid space that is both physical and digital is also constructed in *Ingress* due to the digital augmentation of the physical urban space in the users' mobile phone. Augmentation becomes evident in the fact that every movement of the players in the physical space corresponds to the movement of their avatar on the mobile phone screen, which is also known as the "scanner" in the *Ingress* universe. This kind of augmented space is also essentially strategic with Ryan et al. arguing that "[s]trategic space is best represented in map view as a vertical projection in which no object hides any other" (39). Additionally, in this strategic space, "it is very important to see how objects relate to each other" (39), which is also the case in *Ingress*.¹⁵² Indeed, the virtual objects that are displayed on the augmented reality map that appears on the mobile phone screen are positioned at particular places in the physical space. For example, resonators, which are virtual objects used for defending a portal, should be placed at specific locations

¹⁵² *Ingress* has been referred to as a strategic game by other critics as well. For example, Marta Majorek and Marta du Vall consider *Ingress* to be "a strategic game requiring cooperation and coordinated activity by players, creating both virtual and real interaction among users" (669). However, I resort to Ryan's narrative theory to support my views.

around the portal for more effective protection. This clarifies that the farther the resonators are placed from a portal, the harder it will be for the players of the opposite faction to destroy them and capture the portal (Harris, Kindle Location 353). This is because when resonators are close to each other it is easier to destroy them and the players who attack the portal will need less time and fewer virtual weapons (known as “XMP Bursters” in the game world) to destroy the resonators. On the contrary, if the resonators are far from one another, the players need to move closer to each one of the resonators, thus spending more weaponry, since they need to attack more than once (Harris, Kindle Locations 353-362).¹⁵³ In a similar vein, in order to destroy the resonators in virtual space, they need to stand between two resonators in the physical space so that they can hit them with their XMP Bursters. Therefore, the players develop specific strategies, while positioning themselves in particular locations in locative space in order to play the game. This kind of interaction between the players’ physical body and the virtual objects in the locative strategic space of *Ingress* highlights the hybridity of the locative space, since the players’ physical body needs to be positioned at specific locations among the virtual objects displayed on the scanner.

Finally, different kinds of immersion in the *Ingress* locative gaming space are evident. On the one hand, the above-mentioned spatial practices performed by *Ingress* players while destroying, defending, and deploying portals as well as interacting with virtual objects, confirm that immersion is distributed between the virtual and the physical gaming space. Indeed, the players’ engagement with hybrid locative space can be described in relation to Ingrid Richardson and Rowan Wilken’s theory about “haptic or tactile vision” (“Haptic Vision” 27), which I have used to describe immersion in *The Peripheral* in Chapter One as well. *Ingress*

¹⁵³ This is also made explicit in the *Ingress* narrative. Indeed, as Sarita Hayes states in *Ingress* Report 10, “it’s best to stand forty meters away from your portal [because] this will make it more difficult for agents of the opposing faction to recapture your portal.” Interestingly, this indicates that, as I am going to show further down as well, even such strategic instructions and tips about how to play the game, are fictionalized and narrativized as they are included in the *Ingress* narrative.

players also “divide their attention between two things: the mobile interface and the information this device offers, and the actual physical setting in which the gamer is moving” (Richardson and Wilken 31). Players use their “eyes, hands, feet and the mobile screen device” to play the game, “engag[ing] in a tactile or haptic vision that demands a complex coordination of multisensory perception and the body-in-motion” (Richardson and Wilken 31, 36). As Jason Farman suggests, the production of locative gaming space is an embodied experience because the players’ entire body is involved in this process (*Mobile Interface Theory* 77). Players adjust the position of their bodies around the portals accordingly, interchanging looks between the mobile phone screens and the portals in physical space in their effort to plan their strategic actions.¹⁵⁴

On the other hand, incidents that have been reported about players who died while playing *Ingress* in the streets are indicative enough of the high degree of their immersion in the virtual space of the mobile phone screen, a kind of immersion that is also evident in computer games.¹⁵⁵ Despite the fact that the physical space is an essential part of the game, as shown earlier, such incidents allude to the idea of “ocularcentrism,” or “hegemony of vision” (Richardson, “Audible” 1214) due to the use of the mobile phone, which has also been mentioned in the chapter on *The Peripheral*. This leads to “the marginalisation of the other senses, and the consequent insignificance of perceptual domains marked out by these subordinate senses” (Richardson, “Audible” 1214). It has been noticed that in locative games,

¹⁵⁴ This mode of engagement with locative gaming space has been characterized by Larissa Hjorth as “distracted immersion” because the players’ spatial “perception is divided” between the virtual and the physical “spaces simultaneously” (132). In a similar vein, in “Haptic Vision, Footwork, Place-making: A Peripatetic Phenomenology of the Mobile Phone Pedestrian,” Ingrid Richardson and Rowan Wilken also write that “two simultaneous perspectives” are involved: “a ‘grounded’ perspective of their own bodily positioning in urban space, and a bird’s-eye view of their position and movement on a map” (35).

¹⁵⁵ A review states that: “An inquest last May found that an *Ingress* ‘mission’ was the cause of death of a man who fell – probably while looking at his phone – fractured his skull and drowned in the sea at Poolbeg Pier in the early morning hours” (Lillington). (*Ingress* missions will be analyzed further down in this chapter). Similar incidents have also been reported about *Pokémon Go!* players. These incidents demonstrate that “[r]ecent academic research laments that mobile phone users are increasingly withdrawing from, rather than engaging in, their physical environment and the urban public, despite the availability of LBS” (Xiong et al. 38).

players are engaged in their physical surroundings. Davide Spallazzo and Ilaria Mariani claim that because “LBMGs [...] are situated in the real space, by definition, they physically involve players into the game activity, guaranteeing physical immersion” (71). The authors take physical immersion for granted, as their use of the word “guaranteeing” implies. What this reveals has to do with the kind of narratives the players’ interaction with locations can generate and with the hypertextual manner in which these narratives can be accessed. What is of interest here is how the sculptural hypertext is formed in the *Ingress* missions, which constitute a more recently-introduced mode of playing *Ingress* that has not been frequently commented upon.¹⁵⁶ In addition, it is worth examining how locative hypertext narratives are revealed through casual play with attention paid to two types of fictional hypernarratives: the glyph hack sequences and the media narratives.

With regard to the sculptural hypertext theory, in “Canyons, Deltas and Plains: Towards a Unified Sculptural Model of Location-Based Hypertext” Millard et al. propose a generalized model that covers all the narrative structures adopted by different locative hyperfictions and games. Their model is a refined version of Jesper Kjeldskov and Jeni Paay’s attempt to define the structures of locative hypertext. This model of sculptural hypertext by Millard et al. is used here (and not the model by Kjeldskov and Paay)¹⁵⁷ in order to examine the structure of the

¹⁵⁶ Missions were incorporated in *Ingress* in early 2015.

¹⁵⁷ Millard et al. write that “[Jesper] Kjeldskov and [Jeni] Paay’s structures successfully capture most tour based location aware narratives, but are not solely concerned with structure - they also consider content and usage.” Additionally, “Kjeldskov and Paay classified these structures for tour guides as one of five different types”: Treasure Hunts, Jigsaw Puzzles, Dominoes Scrabble, Collecting Butterflies (Millard et al.). However, Millard et al. have re-appropriated their structure by “taking inspiration from geographical features,” as I am about to show, because “[w]hen looking at a more general definition of structures for location aware narratives (not just tours) Kjeldskov and Paay’s definitions also don’t cover branching narratives sometimes used in location aware fiction and games.” In my analysis of *Ingress*, I will resort to the structures proposed by Millard et al. and not by Kjeldskov and Paay because the former prove to be more effective when it comes to describing the *Ingress* narrative. This is because not all the structural elements of the *Ingress* locative narratives can be described by the Kjeldskov and Paay’s model, such as the “pinned” narratives, “stacks,” and “contextual elements,” to resort to some of the terms used by Millard et al. On the other hand, although much simpler, Kjeldskov and Paay’s model places more emphasis on the way content is organized in space than on the different spatial configurations and permutations that emerge from the ways in which the different types of narrative content, in this case missions, glyphs, and media, relate to each other, as the model proposed by Millard et al. does. Importantly, however, whenever required, I will also resort to Kjeldskov and Paay’s model in my analysis in the form of footnotes.

Ingress locative narratives. According to Millard et al., this model consists of the *Main Story* containing the *Chapters*, which in turn include the *Chapter Elements*. The structure also includes *Nodes*, which can be viewed as equivalents to the hypertext lexias in screen-based hyperfiction. These *Nodes* are narrative containers characterized as *Pinned*, if narrative content is attached to specific locations, or as *Unpinned*, if narrative content can be experienced at any location (Millard et al.). This model also contains *Canyons*, *Plains*, and *Delta* forms. *Plains* can be visited in any order by the users, *Canyons* in a particular order determined by the author of the hypertext, and the *Delta* forms contain nodes that branch into other multiple nodes.¹⁵⁸ The transitions between the *Chapters* and *Nodes* can also be determined through the users' movement in physical space or through their interaction with the mobile screen. As for the queries or *Contextual Elements* the users pose, they contribute to the progress of the narrative. Finally, *Stacks* "are sequences of unpinned nodes" (Millard et al.) and will be commented upon further down in the analysis of the *Ingress* narrative. Applying this sculptural model to *Ingress*, one notices that *Ingress* features a hybrid form of sculptural hypertext. This is because all the three different locative narratives of the game — missions, glyphs, and media items — can form multiple configurations and combinations, and can thus be experienced in different ways by different users.

In the *Ingress* Missions users encounter different spatial configurations through a map depicting portals and sites that the users can use around the globe for the creation of their missions. Users can zoom in and out on the online map in order to have a clearer view of the area in which the mission is going to be located. By clicking with the mouse on the portals or waypoints that are designated on the map, they can choose the ones they want to include in their mission. The mission map constitutes a striking example of sculptural hypertext as defined by Hargood et al., to which I referred earlier in the present chapter. This is because, although

¹⁵⁸ No Delta structures can be traced in the *Ingress* hypertext.

the mission map displays all the possible pathways that users can *potentially* and hypothetically follow while running a mission, the authors of a mission can determine the specific paths to be followed in the urban space, “sculpting away” (Hargood et al.) or removing the rest of the possible pathways and the links between the portals around the globe. In this manner, users are forced to visit only particular locations: in a Canyon-designed (or “Sequential”) mission, the users need to follow the specific route that has been determined by the author of the mission. In a Plain-designed (or “Any Order”) mission, only the portals or waypoints are determined and not the order in which they need to be visited by users. To be more specific, this hypertextual form is sculptural also because restrictions are posed by the author, obliging the users to follow one particular path by visiting specific portals/nodes. Restrictions aim at controlling the users’ behavior and movement in the physical space, eliminating the possibility of visiting all potential pathways. Further restrictions may be posed determining the way users interact with portals while moving in the urban space. For example, the users may be asked to perform certain ludic actions in order to progress in the mission, such as to hack the portal at which they are located, to install a mod, to create a link or a field, or even to enter a passphrase.

These mission narratives, which may be either fictional or non-fictional, relate to the locations to which they are attached. Such mission narratives invite a reconsideration of the kind of immersion that was touched upon earlier in this chapter. As I have already argued, immersion in *Ingress* is distributed between the mobile screen and the physical space, but there are cases when the degree of immersion in the mobile screen is far greater than immersion in the physical surroundings. Generally, it has been claimed that *Ingress* motivates users to engage with their surroundings, as several critics have noticed. For example, Kyle Moore refers to “embodied knowledge” (200), which was also commented on in the previous chapter of this dissertation as an effect of locative narratives. He writes: “Alongside this technological intervention in navigational practices, this engagement is primarily an articulation of embodied

knowledge – the accumulation of knowledge through lived experiences and engagements with locations. Players build on their existing knowledge of urban environments gained through everyday engagements with these locations” (200). Similarly, Heinrich Söbke et al. shed light on the ways in which *Ingress* missions promote learning about our physical surroundings. The authors acknowledge that contextual elements, to use Millard et al.’s model, that is, having users answer questions about portals in missions by entering a passphrase for instance, provides “a further opportunity of learning” (Söbke et al. 53). On the one hand, all these observations highlight the centrality of physical space exploration in *Ingress*. On the basis of what has been mentioned so far, one could argue that it is thanks to the locative mission narratives that users fully engage with their surroundings because these narratives may enable users to deeply immerse themselves in the world of the missions. It is only Erin Stark who has explicitly mentioned narrative as the path to physical immersion in *Ingress* missions, arguing that “[p]layer-generated ‘missions’ can be themed however the creator chooses [...] through narrative and lore about particular portals,” which, “not necessarily remarkable on the surface, become furnished with legend status because of the narratives and histories that surround them both within and across factions” (161). Still, even Stark does not explicate the ways in which mission narratives lead to physical immersion.

Thilo Gross offers a more effective way to immerse oneself in physical space through the use of narrative, one that has not been commented upon by other critics. Although Gross does not mention the concept of immersion explicitly, he indirectly refers to it, writing that “a powerful strategy for bringing missions to life is to link them to physical reality. To some extent the portals already provide this link, but you can do better.” I feel that immersion here ought to be viewed in conjunction with Ryan et al.’s idea of sense of place explored in *Narrating Space/Spatializing Narrative: Where Narrative Theory and Geography Meet* (2016), where it is claimed that what “give[s] an identity to particular areas and regions” as well as “the

distinctive character of a place [...] grows out of human use and experience” (7). Taking all the above into consideration, I would argue that in order for *Ingress* users to deeply immerse themselves in physical space, they ideally need to develop a sense of place which can be achieved only through the mission narratives. While it may be true that users may simply choose to do the mission without reading the locative narratives at all, even when they do choose to read them, these locative narratives need to provide solid links with physical space in order to ensure that immersion can be achieved. Smoothly-integrated narratives may increase the chances of immersion in the textual world of the mission narrative. While reading the locative narratives on the mobile interface, users are occasionally invited to direct their attention to their physical surroundings being prompted by the text itself, as is evident in the locative narratives explored in Chapter Two of this dissertation. This is achieved through the use of contextual elements contained in the chapters or nodes. For example, in Gross’s Queen Square riot mission in Bristol, UK, nodes 9, 19, and 21 connect the narrative with physical space through the use of particular phrases. In nodes 9 and 21, the phrases “Here we are on Welsh Back” and “the cathedral can be seen from here” respectively serve as contextual elements that facilitate physical immersion because the adverb “here” reminds the users of their corporeal and material reality, urging them to reaffirm their presence in the physical urban space by inviting them to locate the cathedral that is mentioned in the narrative or confirm that they are indeed located at Welsh Bank while reading node 9. In other words, they are encouraged to develop a sense of place in a manner that is reminiscent of the locative narratives that were examined in Chapter Two of this dissertation. Similarly, the reference to William James Muller’s statue located at Queen Square in node 19, as Gross himself asserts, encourages users to look at it, but also the node urges them to visit another portal that historically relates to William III: “A large painting of the riots by Müller can be seen in the White Harte pub in Clifton (portal Ye olde White Harte).” Taking Gross’s techniques into account, one can see

that users are able to engage with cultural heritage while immersing themselves not merely by the mission narratives themselves, but essentially through the particular kind of language that is used in these narratives. Finally, as in *Spook Country* in Chapter One, an important historical event is relived in this mission not only via the narrative provided, but also through the users' body, which moves in the urban space as if experiencing the riot once again. Thus, Farman's as well as Richardson and Wilken's immersion theories that space is created through embodiment and through our senses, to which I referred earlier, are also applicable to the mission narratives. Evidently, as is the case in *Spook Country* in Chapter One, an additional historical value is added to physical places through the use of locative media technologies.

On the basis of all the above, with the insertion of narrative, immersion in missions is once again distributed, as it is achieved visually by reading the locative narrative on the mobile screen as well as by looking at the physical space where the portal is situated. However, it is not merely that users engage in physical space through "the narratives and histories that surround them," as Stark suggests (161), but through the ways in which the text on the mobile screen can be viewed in conjunction with the materiality of the physical surroundings, as Gross's missions and techniques indicate. The more contextual elements a chapter or node in the sculptural hypertext narrative contains, the stronger the links with physical space are, and the greater the immersion in physical space is. To use Farman's term which I analyzed in Chapter Two, these contextual elements contained in the mission narratives augment their experiential value by encouraging the readers' engagement with both the narrative elements and the physical space.¹⁵⁹

Besides mission narratives that feature in the *Ingress* universe once the users interact with portals, glyph sequences and media hypernarratives are the other two forms of sculptural

¹⁵⁹ In the locative narratives explored in Chapter Two of this dissertation, these links are even stronger than those provided in Thilo Gross's *Ingress* missions, to the extent that the physical space becomes an indispensable part of the narrative, as already proven.

locative hypertexts. What these locative texts enable one to realize is that the users' interaction with locations can be compared to the act of reading hypertext. In fact, as I am about to show, the construction of the *Ingress* storyworld is to a great extent the result of the users' work, as this is gradually revealed by the users through interactive locative gameplay. Users are required to navigate in locative space as well as read, combine, and revisit textual information.

Various spatial configurations and hybrid forms of sculptural hypertext emerge when mission narratives combine with glyph and media narratives. On the basis of the model proposed by Millard et al., it could be argued that the nodes containing glyph and media narratives can be accessed in any order. Furthermore, in missions that contain narrative, given that narrative is attached to specific locations as shown earlier, only pinned nodes can be encountered in glyphs and media narratives, while unpinned nodes can be viewed in any location. However, users may encounter piles of narratives, or "stacks," to use Millard et al.'s term once again, consisting of either mission, glyph, and media narratives, or only of glyph and media narratives. The first case, which is quite rare to occur, is evident when, while performing a mission, users read the locative narrative and choose to glyph hack instead of simple hack, a process to be explained further down. In the second case, there is a stack of only two narrative types, glyphs and media; this happens when a glyph hack offers a media item. To sum up, users can encounter only media narratives by performing a simple hack, a media narrative after viewing the glyph narratives by performing a glyph hack, or media and glyph narratives after experiencing a mission narrative.¹⁶⁰ All this is indicative of the multiple ways in which the *Ingress* fictional narrative can be revealed to the users, while the value of the examination of the glyph-hack and the media locative hypertexts of *Ingress* lies in the fact that they

¹⁶⁰ Table 2 and Figure 1 in the Appendix contain all possible spatial configurations of the sculptural hypertext model proposed by Millard et al., as it is applied to *Ingress*.

challenge the concepts of textuality and narrativity as well as traditional reading practices, as will be shown.

First of all, glyph-hacking works as a game that is embedded in the *Ingress* gameworld. Once the users visit a portal, they are given the choice to do a simple or a glyph hack. Glyph-hacking yields more virtual objects to the users than simple hacking; these objects can be obtained either through a simple hack or a glyph hack, also working together with a narrative in a textual, visual, audio, or videoed format. While a simple hack occurs when users press the hack button on the *Ingress* scanner, the glyph hack is a hidden action that is “initiated by long-pressing the hack button,” as Suzanna Moyer states in *Ingress* Report 47. As a result, a sequence of up to five glyphs is presented on the screen, depending on the level of the portal, which is in turn determined by the level of the resonators that have been installed in it. The speed with which each glyph appears on screen also varies according to the level of difficulty of the portal. Glyph-hacking strongly relies on memory and speed because the number of game bonuses the users gain, such as virtual objects and XM, depends on whether they repeat the glyph sequences correctly by forming them on the screen with the finger as well as on how fast they do so. Since each glyph represents a word, the meaning of each one of the glyphs is displayed on the screen at the end of the glyph-hack process. In other words, the sequence is once again shown on screen along with the translation of the glyphs. Therefore, users are presented with different sequences each time, each of which formulates a phrase, such as “Liberate Human Future,” “Change Perspective Begin New,” and “End Old Civilization Create New,” which alludes to the *Ingress* narrative, as is explained further down.

If viewed as digital texts, glyph sequences can be explored in conjunction with one of Ryan’s theories of interactivity. In “The Interactive Onion: Layers of User Participation in Digital Narrative Texts,” Ryan views interactivity as a multi-layered process depending on the ways in which users interact with digital narrative texts. In particular, she writes: “In the outer

layers, interactivity concerns the presentation of the story, and the story exists prior to the running of the software; [...] in the inner layers, the story is created dynamically through the interaction between the user and the system” (37). To be more specific, on the one hand, the outer-level “materials that constitute the story are [...] fully predetermined, but [...] their presentation to the user is highly variable” (Ryan, “Interactive Onion” 40); while on the other hand, certain inner-level interactive narratives “are not predetermined but rather generated on the fly from data that comes in part from the system and in part from the user. Every run of the program should result in a different story, and the program should therefore be replayable” (48). Glyph hack sequences seem to share characteristics of both outer and inner layers of the interactive narratives. Indeed, although the content of the glyph sequences *is* predetermined, the order in which the glyphs are presented is not predetermined, as different glyph sequences appear on the mobile screen every time. Regarding the inner levels, it can be observed that glyph sequences can be replayed innumerable times, although the narratives are not created by the users but from a pool of words and phrases which the *system* mingles, making different combinations of words that yield amorphous syntactic structures. Although the users interact with the *Ingress* scanner, they cannot actually modify the narrative content and the way it is presented, since the glyph phrases are automatically revealed regardless of whether or not the users formulate the glyphs successfully or even when they do not formulate the glyphs at all.¹⁶¹

¹⁶¹ This interaction between users and the machine is further underlined in Hartmut Koenitz’s theory of interactive digital narratives. The author proposes a new theoretical framework that takes into consideration not only the final product of the user-machine interaction, in this case the glyph sequences, but also “the digital computer system (software and hardware) and the participatory interactive process that result in a story output” (96). He thus emphasizes the system/process/product triad, “as an expressive narrative form in digital media implemented as a computational system containing potential narratives and experienced through a participatory process that results in products representing instantiated narratives” (102, 98). Koenitz further explains this definition, stating that “[o]nce a user starts to engage with the system, a process is created that is defined by the opportunities the system provides and shaped by the user’s actions. The resulting product of interactive digital narrative [...] represents an instantiated narrative” (98). This interactive digital narrative theory seems to ideally describe the nature of the glyph sequences: the glyph hack game can be viewed as the “computational system” with which the users’ interact, causing it to produce an insurmountable number of narrative instantiations, which are the glyph sequences themselves.

This being the case, can these glyph sequences or their combination actually form a story? Paradoxically, my answer to this question is both yes and no. This is because glyph narratives are dysfunctional with regard to the ways in which they can be read and interpreted. Ryan analyzes the notion of dysfunctionality in relation to digital narrative texts. In her discussion about dysfunctional interfaces, she refers to texts that “challeng[e] memory,” as they “dissolve so quickly on the screen [...] that the reader’s eye can only parse a fraction of their words. It is possible to complete the reading by recalling the same screen, but by that time most readers have probably forgotten the meanings collected during their previous visit” (*Narrative as VR* 2 147). In a similar manner, glyph sequences are also ephemeral and self-destructing, and as such, they are difficult to access and remember because users are not provided with enough time to create a narrative framework.¹⁶² In particular, *Ingress* appears to subvert conventional reading practices through the glyph sequences, since, following Ryan’s theory, the mobile interface itself through which they are disclosed to the users appears to be dysfunctional (146). It would even be impossible to create the fictional world hidden behind the glyphs hypertextually, that is, by combining the various glyph messages together. This is because, since the translation of each glyph disappears quickly before the next one appears, it takes time on behalf of the users to remember all of them in order to form the phrase mentally in their head.¹⁶³ As a result, users feel that they have no control over the narrative. Nevertheless, even if the glyph phrases appeared on the screen, they would still be dysfunctional as narratives due to their incomprehensibility that results from their inability, as Ryan would claim, “to bring their world to life[,] [...] sacrificing the ‘world’ aesthetics to the ‘game’ aesthetics” (137). To

¹⁶² Referring to the dysfunctional interface of *Grafik Dynamo* (2005), Ryan notes that “the short-lived appearance of data does not give the user sufficient time to construct a narrative context for every frame” (*Narrative as VR* 2 150). She also writes about the dysfunctionality of *The Jew’s Daughter* (2000) that “[i]t would be impossible to read the text as an account of events that take place in a temporal or causal sequence” (148). These comments can be used to describe the glyph sequences in *Ingress* as well.

¹⁶³ In this sense, the glyph narratives can be regarded as ergodic. According to Aarseth, a text can be considered ergodic when “nontrivial effort is required to allow the reader[s] to traverse [it]” (*Cybertext* 1). Glyph hacks fall into the category of the ergodic, since the readers have to form the glyphs haptically on the screen.

be more specific, such texts “are [...] dysfunctional with respect to standard narrativity and fictional world-creation” (Ryan 138). That is, despite the “diversity of output” of the *Ingress* scanner, which “contribute[s] positively to [its] aesthetic value” (Ryan, “Interactive Onion,” 60),¹⁶⁴ one could argue that the mobile phone becomes in this case an “antinarrative interface” (*Narrative as VR 2* 148) that impedes the creation of meaning.

However, supposing that a great number of glyph sequences and their translations are gathered,¹⁶⁵ one will observe that they appear to be messages that address the users directly in the imperative form and can be categorized according to the main theme of the game. This being the case, they can be divided into two broad categories: those that favor the Enlightened, such as “Help Enlightened Strong Victory,” and those that favor the Resistance, such as “Help Resistance Strong Victory.” There is one more general category in which all other types of messages can be grouped, such as “Avoid Chaos Soul” and “Abandon Fear Defend Future.” Nonetheless, these categories are elusive, since they may not be discovered by all users. Due to the great number of glyphs, the users cannot easily have access to all the glyph sequences through the *Ingress* scanner.

As a result, glyph interpretation becomes even more complicated when users encounter glyph sequences including words of which they are unaware. For example, in the old version of *Ingress*, no reference to the Shapers was made in the introductory tutorial, and thus it was impossible for users to know who they are. However, in the tutorial of the *Prime* version, the Shapers appear as “an unknown force within the Portals,” while Jarvis, the fictional character who represents the Enlightened, “serves the Shapers” (*Ingress Prime*), who “will help

¹⁶⁴ Ryan writes that “an interactive work that produces a relatively fixed plot but gives intense pleasure during its unique run is not inherently inferior to a system that creates a wide variety of mediocre stories. I am not saying that diversity of output does not contribute positively to aesthetic value but rather such a work can compensate for lack of replayability with other qualities. There are consequently good and bad solutions, success and failure, entertainment and boredom on all the layers of the interactive onion” (“Interactive Onion” 60). Although glyph sequences are characterized by a “diversity of output,” they constitute “mediocre stories,” to use Ryan’s words, as I am about to show, although they “contribute positively to aesthetic value.”

¹⁶⁵ This has already been done in websites that have published most of the glyph sequences that have been encountered by users so far. For example, see the website: “New Sequences Complete List and thoughts...”

humankind evolve and [...] they will bring enlightenment to all people” (“Leaving Ingress”). Consequently, only users of the *Prime* version could make the connection between all these glyph sequences. Nonetheless, such a kind of glyph reading does not guarantee immersion in the fictional world because not all sequences can be interpreted until one reaches the hidden storyworld that can be accessed through the *Ingress* websites to be analyzed further down in this chapter. In the *Ingress* websites and *Ingress* reports, users have the opportunity to discover more information about the glyphs. For example, in *Ingress* Report 9, users learn that “glyphs [are] influenced by the Shapers,” while in *Ingress* report 47, users are informed that ADA (short for “A Detection Algorithm”), the AI fictional character who represents the Resistance, has readjusted the way glyphs are presented on the *Ingress* scanner. It is these pieces of information that can help users create a narrative context for the glyphs. It must be stressed that so far, I have been examining the glyphs from the perspective of users who are not aware of the *Ingress* narrative that is presented through social media and other websites. For users who are aware of the narrative though, the glyphs may add more clues to the broader conflict between the Enlightened and the Resistance.

Having said all this, another crucial question arises: how are users (who may not have possibly watched the above *Ingress* Reports yet) supposed to maintain structural and semantic unity in a dysfunctional and ephemeral text which relies on the random appearance of fragments? First of all, Ryan characterizes “dysfunctional texts [as] a form of conceptual art,” suggesting that, since they do not construct “worlds, [they] are not supposed to be read in their entirety but rather to be sampled in quick grabs, like the output of a Web cam” (*Narrative as VR* 2 158, 159). This is exactly the case with the glyph sequences. Indeed, *Ingress* users are not supposed to read all the glyph sequences, even if they deliberately choose to do so, as has already been mentioned. Ryan would argue that such an “operation would be pointless” because, “[s]ince the entire [dysfunctional] text is the product of one generative idea, this idea

is fully represented in each grab” and “once the audience gets the idea, there is little need to explore the text any further” (159). Trying to decipher the glyph messages only, users can satisfy “a pleasure made of curiosity, discovery, and surprise reminiscent of the excitement of a child (or adult) who opens the windows of Advent calendar, discovering treasures that lie behind the surface, and filling the landscape with images that stimulate the imagination” (Ryan 146).¹⁶⁶ It seems then that the glyph texts serve as points for further intellectual activity for the users, since their indeterminate and transient nature asks for a different kind of engagement and attention that has nothing to do with the close reading strategies used in textual narratives.¹⁶⁷

In line with all the above, one could argue that the glyph texts do not narrate stories in the conventional sense, as they constitute individual fragments or textual units that, if viewed separately, “cannot be read as a sustained story,” as Ryan would argue (*Narrative as VR 2* 148). Ryan’s “loose conception of narrative,” according to which texts can have various “degrees of narrativity” (*Narrative as VR 2* 148; “Towards” 30), as well as the “distinction [...] between ‘being a narrative’ and ‘having narrativity’” (Ryan et al. 139), which I examined in the previous chapters of the current dissertation as well, are relevant here. In fact, since, as already shown, the glyph sequences have the ability to “evok[e] a narrative script in the mind of the audience,” that is a “script” that pertains to the main narrative of *Ingress*, they can be considered “posses[s] narrativity” (Ryan, Introduction, *Narrative across Media* 9). I will insist, however, on using the word “narrative” when describing such texts because, although they fail to fully reveal the *Ingress* narrative world, they at least bring to the surface instances of narrativity, relying here on a rather broader definition of narrative proposed by Ryan, according to which,

¹⁶⁶ Ryan uses this phrase to refer to dysfunctional texts in general.

¹⁶⁷ Ryan argues that in order to read such dysfunctional texts, “hyper attention” is required, a term coined by N. Katherine Hayles to define the readers’ experience with the interactive, multi-mediated environment of electronic media (*Narrative as VR 2* 158); hyper attention is opposed to “deep attention” that characterizes close reading (158), which proves inadequate in the case of glyph hacks, as shown.

“narrative should [...] work for different media (though admittedly media do widely differ in their storytelling abilities), and it should not privilege literary forms (“Towards” 26). As mentioned in the introduction of the present dissertation, Ryan also points out that, “when we are presented with a text of unknown origin, and [are] asked” to define whether or not it is a narrative, “we may diverge in our answers, but this does not mean that some of us are right and some of us are wrong (unless of course we blatantly misread the text), because we apply different criteria of narrativity, and because we can decide whether or not the text fulfills these criteria by paying attention to what it says” (32). Given this definition of narrative, I would argue that glyph sequences should be regarded as what I called “pseudo-narratives” in Chapter One with my discussion of Alberto’s death monuments in *Spook Country*, because they also display a low degree of narrativity.

Glyph reading can finally be viewed in conjunction with N. Katherine Hayles’ cognitive processes of reading analyzed in *How We Think: Digital Media and Contemporary Technogenesis* (2012). In glyph hacks both human and machine reading is involved, since the users are asked to read the glyphs and rewrite them on the mobile screen, while the machine (the mobile app software) reads back in order to recognize the glyph patterns that are formed by the users on the screen and assess to what extent they are formed correctly. In relation to pattern identification, Hayles writes that “the line between (human) interpretation and (machine) pattern recognition is a very porous boundary, with each interacting with the other” (72). Although Hayles recognizes that human and machine reading are two different conditions, she admits that the two interact and overlap (72, 73), as is exactly the case in the *Ingress* glyph reading. For example, “[t]he more the emphasis falls on pattern (as in machine reading), the more likely it is that context must be supplied from outside (by human interpreter) to connect pattern with meaning” (74), as is the case in glyph reading, where the machine needs the users’ input in order to provide the output needed that will facilitate the user’s

understanding of how the glyph narratives work. Thus, humans and machines metaphorically engage in an inevitable and indispensable feedback loop. This is reflected in the *Ingress* narrative because it is not only that human agents try to take advantage of the machine (the mobile phone here), but also the machine is used to control the human brain through the glyphs again, which constitute “a programming language for our [human] brain” (*Ingress* Report 24). Ultimately, the human-machine interaction is thematized in the *Ingress* narrative with the characters of Klue/ADA, who represent “the first step in merging machine intelligence with human mind” (“INGRESS REPORT YEAR TWO - The Investigation (I)”), since Klue is human and ADA is an AI, as her very name, A Detection Algorithm, denotes. What this reveals here is the cognitive processes that are involved in reading the digital texts of *Ingress*. The analysis that follows will focus on another form of locative narrative, the media texts/items, which are also dysfunctional, as they challenge reading practices and cognitive processes in different ways.

Media items are virtual objects that provide hyperlinks to online information concerning the *Ingress* universe (“Media – Ingress Wiki”). These items present the *Ingress* fictional narrative by including different types of video, text, and audio files (“Media Items”), and they may contain *Ingress* Reports, information about various *Ingress* characters, or even documents or instructions pertaining to the game. According to the sculptural hypertext model by Millard et al., the media items employed are organized like the glyph narratives. Media items generally “have no gameplay utility” (“Media – Ingress Wiki”), although they may occasionally have a ludic function in the game, containing codes to be redeemed by players in order to gain bonuses (“Media Items”). As is the case with the glyphs, media narratives also bear a dysfunctional hypertextual structure, although their dysfunctionality lies in the ways they challenge and even subvert hypertextual reading habits.

First of all, the media narratives can be analyzed in terms of Ryan's theories of hypertextual interactivity. Applying these theories here, one could argue that media narratives, like glyph narratives, also belong to the second level of interactivity, which "is [also] known as a hypertextual structure: a collection of documents interconnected by digital links, so that, when the user selects a link, a new document comes to the screen" (Ryan, "Interactive Onion" 40). Media items are presented as locative narratives in the broader sculptural hypertext structure, inviting the users to access and experience them in a hypertextual manner by clicking on the narrative fragments that appear on the mobile phone screen.

According to Ryan, "the various lexias are fragments of an exploded image that the reader[s] tr[y] to put together in a sustained effort" (*Narrative as VR* 2 198-99). If one assumes that media narratives in the sculptural hypertext structure are the equivalent of lexias in a screen-based hypertext, then they can be treated as what Ryan would consider to be "fragments of an exploded image" (199), with the image here standing for the various media manifestations of the narratives (video, audio files, links, texts). For instance, if users (who are *not* already familiar with the *Ingress* narrative) encounter the media item entitled "Jahan: The Interview," they will be unable to relate it to other media items in order to create a context for this narrative, unless they encounter the so-called *Ingress* Report ("JAHAN: THE INTERVIEW")¹⁶⁸ in which Suzanna Moyer provides information about Jahan. Otherwise, the users will be unable to understand who Jahan is, what her role in the narrative is, as well as the reasons why she is being interviewed, since the video itself does not provide any specific semantic/thematic context. This non-sequential order, or rather, multi-order in which the media narratives appear transforms the act of reading into an overwhelming experience for the readers, thereby producing an effect of confusion as well as a sense of alienation deriving from all the references

¹⁶⁸ Generally, some *Ingress* Reports are characterized only by their titles, while others are also named with the number of the episode. For reasons of convenience, I have changed the order of information in the works cited section of the present dissertation so that the episode number of the *Ingress* reports appears before their titles.

to characters and events one finds in *Ingress*, which is reminiscent of the effect early hypertexts created in the 1990s. Applying Ryan's jigsaw puzzle model to the *Ingress* media items would lead one to the conclusion that "the context of a [media item] is formed by those other [media items] that shed light upon it" (199). Considering all the above, the notion of hypertextuality conceptualized as a jigsaw puzzle is defined here as the mental linking of disparate textual segments that form a comprehensible whole, since the *Ingress* narrative appears to be a random-ordered, non-linear, scrambled text, "favour[ing] the serendipitous emergence of meaning," as Ryan would argue ("Interactive Onion" 42). In contrast to classical screen-based hypertext, where the readers "may need several visits to the same lexia before [they] can gather sufficient information to place it in a meaningful environment" (Ryan, *Narrative as VR 2* 199), the *Ingress* media narratives appear only once, but they are stored in the game's Inventory as an archive that can be revisited at any time as if they are actual pieces of a puzzle.¹⁶⁹ This kind of archiving creates the impression that users will gradually manage to reach a coherent meaning and eventually establish some sense of an order between the various media narratives for the construction of a coherent narrative.

However, these narratives are essentially dysfunctional because it is impossible for users to place all these narrative fragments into coherent patterns. Following Ryan's theory of dysfunctionality once again, one can claim that, while the players discover that portals function as nodes revealing elements of the game's narrative, the media narratives prove to be unable to disclose the *Ingress* storyworld (*Narrative as VR 2* 137), as is the case with the glyph pseudo-narratives. This happens for two reasons. Firstly, the appearance of media items is not consistent: while some portals/nodes in the sculptural hypertext may yield media items, others may be devoid of any media items. Secondly, not all media items are provided to all users. This

¹⁶⁹ Media also serve as archival narratives, a concept to be explained further down in this chapter, because they are presented in a particular website in the form of a database list, and users are given the opportunity to view all media together. Although the original website is no longer available, media items can be retrieved here: <https://web.archive.org/web/20180821111950/http://media.1331.nl/>

being the case, no user can gain access to all media items because the game reveals only media items that include narratives published in the specific period that a player is playing, while in other cases, certain media items “can only be produced from specific [p]ortals” (“Media – Ingress Wiki”). However, the exchange of media items between players is also possible in case they are interested in collecting more pieces of the hypertextual puzzle. Players are even encouraged to exchange media items. For example, in *Ingress* Report 10, ADA addresses *Ingress* players directly by saying: “I’m glad you found this media package. Make sure to share it with your faction.” Despite this, even if it was somehow possible to collect all media items through locative gameplay, it would require an insurmountable amount of effort to do so; this difficulty of accessing the different media items renders them dysfunctional. It then appears that *Ingress* media narratives undermine and depart from this jigsaw puzzle model that most classical web-structured hypertexts follow. Since users have access to a fragmented and incomplete image of the storyworld, immersion in this storyworld is also rendered impossible.

Having said all this, since the jigsaw metaphor proves to be inadequate to describe the kind of hypertext created with media narratives, a reworked version of hypertext is evidenced here.¹⁷⁰ Since users are not given all the pieces of the puzzle, they need to cope only with the resources they have, that is, the media narratives that each one of them is given on the basis not only of what is revealed by the software program itself each time, but also by the media the users themselves may exchange with one another. This being the case, dysfunctionality does

¹⁷⁰ Applying Kjeldskov and Paay’s sculptural hypertext model to the media narratives, one would observe that they correspond to the jigsaw puzzle form. According to their model, the jigsaw puzzles “are nonlinear stories characterized by consisting of a number of parts or chapters that the receiver may read or listen to in any order they like in order to create the whole story. Just like assembling a jigsaw puzzle, the user has to work out which pieces fit together in order to create a meaningful whole. Any piece can be picked up at any time, but each piece only makes sense in relation to particular other pieces. The sequence of assembly does not affect the outcome in itself but may influence peoples’ experience of the story. All pieces have to be considered in order to complete the picture” (17). While the above excerpt seems to describe the ways in which media narratives work, as I have already proven in my analysis, the media would be a dysfunctional jigsaw puzzle because they cannot be used to “create a whole story,” nor “a meaningful whole,” as the authors in this excerpt state. As a result, like Ryan’s jigsaw puzzle hypertext metaphor, Kjeldskov and Paay’s model would also be dysfunctional when it comes to the examination of media narratives.

not necessarily constitute a weakness because each user reveals a different aspect of the *Ingress* storyworld, thus experiencing the *Ingress* narrative uniquely. In other words, the hypertext aesthetics yields more personalized versions of the vast *Ingress* narrative, none of which is complete. In this sense, the *Ingress* narrative turns into a dynamic text changing every time from reading to reading, depending on which media narratives are unlocked each time for the users. Finally, the narrative turns into a fluid and expandable text, as new media items are constantly being added to it.¹⁷¹ The idea of the dynamic and expandable text is further enhanced in the *Ingress* archival hypertext to be explored next.

3.2 *Ingress* as a Screen-Based Archival/Database Hypertext

By interacting with glyph and media narratives, users become aware of the existence of a much larger narrative that is hidden, which cannot be fully accessed through glyph-hacking and the collection of media items, as already argued. What is of interest here is the role of the mobile phone as a storytelling tool, which in *Ingress* serves as a portal to its hidden storyworld. This prompts one to reconsider Gibson's words from *Spook Country* commented on in Chapter One, about his characters being "[i]nto the locative" (21), which is exactly the kind of experience *Ingress* offers to the users who not only interact with locations, but also they can actually immerse into them due to the *Ingress* app they have on their mobile screens.

In fact, the *Ingress* storyworld appears to be essentially fragmented, since the narrative, especially in its older version, is distributed among various websites as well as different

¹⁷¹ It should be clarified that the media narratives are submitted by users, but they are constructed by the designers of the *Ingress* narrative. This idea of the expandable text will be elaborated later in further detail in the analysis of the archival hypertext.

media¹⁷² and platforms.¹⁷³ The old version of *Ingress*, for example, offered users access to a website, entitled *Investigate: Uncover the secret war to control Exotic Matter*, containing the *Ingress* narrative in the form of a timeline. By visiting this website, users had the opportunity to gain access to other websites which are also part of the *Ingress* storyworld. It should be noted also that this website is no longer available and is totally different (even in terms of structure) from the new version of “The Investigation” that is available through the *Ingress Prime* website. In this section, my primary concern revolves around the ways in which the distributed narrative of *Ingress* can be constructed through the afore-mentioned websites, and especially the old version of the *Investigate* website. It would be worthwhile to examine the structure of the hypertexts contained in this website as well as their design and screen layout because this website highlights the ways in which hypertextual narrativity is reconsidered and reconfigured. Ultimately, although the *Investigate* website to be analyzed in this section has not been available since summer 2019, that is only a few months before the completion of the present dissertation, examining it adds to the historicization of the evolution of *Ingress*, an idea that was mentioned in the beginning of the chapter as well.¹⁷⁴ At the same time, however, this indicates the ephemeral and obsolescent nature of digital technology, which can thus be regarded as a vulnerable medium. This being the case, the present analysis serves also as a kind of archival preservation of this website, which, as will be shown, itself bears the form of an

¹⁷² Montola et al. write that “[t]he distributed narrative is told in small fragments, which are hidden in different locations and in various media” (150). However, as Carolyn Handler Miller notices, “distributed narrative” is only one term that describes this kind of narrative, as the authors provide alternative terms that have been used as well, namely “multi-platforming” or “cross-media producing,” “networked entertainment,” “integrated media,” while “[g]aming projects that use the transmedia approach may be called ‘pervasive gaming’ or sometimes ‘trans-media gaming’” (163). Interestingly, “[t]he terms ‘transmedia entertainment’ and ‘transmedia storytelling’ seem to be gaining the most favor” (163). It should also be mentioned that, although the *Ingress* transmedia narrative consists of printed books as well, in this chapter I only focus on the digital forms of the *Ingress* narrative.

¹⁷³ In the old version of *Ingress*, for example, users could click on the “Community” section from the Menu, where they were given two options: first, they could click on the option “*Ingress* G+,” which would take them to the Google Plus (G+) platform, a social media application which is no longer available. Once users subscribed to this app, they could receive snippets of the *Ingress* narrative on a daily basis, while all users could leave comments and discuss with each other. Some of the narratives presented in G+ are also included in the media narratives that were analyzed earlier.

¹⁷⁴ However, the *Ingress Investigate* website can be retrieved in the following link: <https://web.archive.org/web/20190312084003/http://investigate.ingress.com/>.

archival or database hypertext. In the new version of the website that was launched, which is a continuation of the old *Investigate* website, the fictional narrator, P.A. Chapeau (PAC), who is also a character in the *Ingress* narrative, confirms the old website's archival status even before its termination, saying that "[t]he old site will still stay up, as an archive, but I'll be posting all new material here" ("The Investigation Continues").

To begin with, in this website the readers of the *Ingress* narrative are offered a number of options as to how they can read it. On the mobile phone screen one can see a menu on the left-hand side, while on the right-hand side there is a calendar. The readers can also scroll down the screen in order to view stories that are presented in the form of articles which they can select to read by clicking either on their titles and thumbnail image that appear on the screen, or on the button "Read Article" that appears once the readers mouse over the word "article" in case they are using a tablet or PC. These "articles" are presented in chronological order according to their date of publication. Below the main menu the readers are briefly given the main idea of the *Ingress* storyline that revolves around the two factions, the Enlightened and the Resistance, that struggle to gain control of the XM, the mysterious energy that, according to the *Ingress* fictional narrative, is visible only through the *Ingress* scanner and whose effects on humanity remain unknown. In this section of the website, PAC addresses the readers directly in the second person, advising them to "[b]e informed" about the narrative by reading "the latest developments" that "[he]'ll be posting"; in particular, he urges them "to jump in and start following the news" ("Getting Started").

The spatial design of the *Ingress* screen-based narrative described above seems to bear a database structure. Manovich's and Ryan's views on the relationship between database and narrative need to be considered here. While Manovich views the database as the underlying

form of hypertexts,¹⁷⁵ he actually regards narrative and database as opposing terms because “a narrative creates a cause-and-effect trajectory of seemingly unordered items,” while in a database information is grouped in lists that are not accessed in a specific order (*Language* 200, 199). Ryan explicitly castigates Manovich’s stance,¹⁷⁶ arguing that, if “properly structured,” a database does not defy narrative logic, as narrative meaning can be attained despite “the free probes of the users and their always incomplete exploration” (“Interactive Onion” 40). Ryan reconciles these two terms by demonstrating that one of the ways in which a database meets the necessary criteria in order to be considered a narrative is when it “allows information to unfold recursively from a main menu into a variety of submenus” (*Avatars* 104). Specifically, Ryan writes about this kind of organization:

Thanks to this modular character, the reader can bring a magnifying glass to certain parts of the story without losing sight of the whole. [...] [T]he storyworld expands and reveals more stories, as the reader’s attention shifts from the main characters to the secondary characters, who then become main characters surrounded by their own casts of secondary characters, in a potentially infinite regression. But if we feel that we have strayed too far from the center, we can always return to the main menu with one click and reconnect with the diary of the expedition. With this type of interactivity, users are able to move freely around the story and to customize it to their own interests. (“Interactive Onion” 40-41)

¹⁷⁵ Lev Manovich notes that “[a]n interactive narrative (which can be also called ‘hypertext’ in an analogy with hypertext) can then be understood as the sum of multiple trajectories through a database” (*Language* 200).

¹⁷⁶ Hayles is another scholar who discusses the relationship between narrative and database. Hayles also disagrees with Manovich, claiming that “[r]ather than being natural enemies, narrative and database are more appropriately seen as *natural symbionts*. Symbionts are organisms of different species that have a mutually beneficial relation. For example, a bird picks off bugs that torment a water buffalo, making the beast’s existence more comfortable; the water buffalo provides the bird with tasty meals. Because database can construct relational juxtapositions but is helpless to interpret or explain them, it needs narrative to make its results meaningful. Narrative, for its part, needs database in the computationally intensive culture of the new millennium to enhance its cultural authority and test the generality of its insights. If narrative often dissolves into database, [...] database catalyzes and indeed demands narrative’s reappearance as soon as meaning and interpretation are required” (176; emphasis in the original). Here I will focus only on Ryan’s concept of the database, as I am primarily concerned with what narrative can gain from the database structure in relation to the *Ingress* hypertext.

In a similar vein, the *Ingress Investigate* website can also be characterized as a database hypertext with the menu on the left-hand side functioning as, what Ryan calls, a “magnifying glass” that allows readers to focus only on specific parts of the narrative without straying away from the main screen. Indeed, the narrative bears a modular structure, since by using the menu options, readers can investigate, as the title of the website suggests, the various episodes or modules of which it consists. All modules carry a name that also describes the anomaly events in the game; in essence, each anomaly series in the game constitutes a corresponding module in the *Ingress* narrative. That is to say, the menu allows the readers to investigate the stories of specific anomalies in chronological order. For instance, they can go to the option “Digging Deeper,” then to “Previous Investigations,” then choose the title of the module they want to explore, choose “Chronological View,” and start reading in linear order the stories pertaining to this part of the *Ingress* storyworld.

Moreover, readers can explore the narrative in greater detail by taking advantage of its hypertext affordances, thus “retriev[ing] more and more documents” as well as dig[ging] deeper and deeper into the database,” as Ryan suggests above (“Interactive Onion” 40). This is underlined even by the narrator himself, PAC, who, in the section entitled “Getting Started,” urges the readers to immerse themselves in the textual experience by “[diving] deep,” while bearing in mind that “[i]f [they] feel [they] need to know about the past, countless resources exist to help [them] learn more.” In fact, the news “articles” work hypertextually, containing words that function as links to other parts of the narrative, thereby allowing the readers to enter deeper into the storyworld by further exploring particular aspects of the story they are investigating, as if using a “magnifying glass,” to use Ryan’s terms (40). For example, supposing that readers choose to begin with the “article” entitled “What Is the New Wave?,” published on July 27, 2016, they encounter the following text: “The last few days, I’ve been seeing the word ‘New Wave’ pop up in reference to the Enlightened and the Resistance. The

Acolyte [mentioned it yesterday](#), OLW [the day before](#). It goes back to the [Akihabara story](#) that surfaced last week, and maybe even further, to [Susanna's last echo](#) from India before [Tokyo](#).” I have put certain phrases in light blue color and have underlined them to look exactly as they do in the original text, demonstrating here the hypertextual reading strategies involved in this excerpt. These phrases function as nodes leading to other “articles,” which are parts of the “Via Lux” chapter. In fact, clicking on the phrase “mentioned it yesterday” leads to an article entitled “True Beauty” that was published on the previous day and contains a message from the Acolyte, another *Ingress* character. What is more, clicking on the phrase “the day before,” the users come across another narrative that was also published on the previous day, entitled “Connecting to the Cosmos.” This narrative reports another *Ingress* character’s, Oliver Lynton-Wolfe’s, viewpoint on the topic of the New Wave. Similarly, clicking on “Susanna’s last echo” leads to the article entitled “Susanna Moyer: An Update from India,” where users find a message from Susanna Moyer that discloses that she is in India, a piece of information that is going to be useful further down. As for the “Akihabara story” link, it allows readers to dig even deeper in the *Ingress* storyworld by visiting multiple links. This displays the article entitled “The Underground,” which can lead to an article about Suzanna’s mysterious disappearance entitled “Missed Connection,” which in turn relates to the above-mentioned article “Susanna Moyer: An Update from India” that reveals her whereabouts. Thus far, it can be argued that the *Ingress* hypertext here takes the form of a jigsaw puzzle, but with a twist.

Taking all the above into account, one could point out that the *Ingress* narrative slightly differentiates itself from the jigsaw puzzle conceptualization of hypernarrative that was examined in the previous section. First of all, as is the case with jigsaw puzzle hypertexts, the plot of the narrative is once again formulated through the mental association on the part of the readers. This hypertextual structure is also reflected in the kind of language utilized, as is for example the case of PAC advising the readers to “[f]ollow the threads” because “[e]ach asset

in the Investigation will lead [them] to another,” as well as to “[t]ravel through them” because “the truth exists not in any single document or page, but in the connections that form between them” (“Additional Resources”). The narrative then is the outcome of the association of ideas and the accumulation of the readers’ perceptions. Nevertheless, hypertext here is not conceptualized as scrambled text, as is the case with the dysfunctional media narratives, but rather as what Ryan would describe as an “archival narrative”: a “stor[y] that the reader reconstructs, not through random travel through a network but by consulting a well-organized database of documents” (*Avatars* 104). This is because the difference between this specific archival hypertext and the jigsaw puzzle metaphor lies in the fact that users in the former are given greater control of the narrative, since it is structured around specific episodes.

If this is the case, hypertext interactivity in this archival narrative seems to be best described on the basis of what Ryan proposes, according to which, “[the] reader[s] [do] not feel compelled to read the text in its entirety nor to pay attention to every screen because [they] se[e] the text not as a work held together by a global design but as a display of resources from which [they] can freely pick and choose” (*Narrative as VR 2* 196). This invites a reconsideration of the role of the readers, who, as Ryan suggests, in such kinds of “searchable archive[s],” turn into “investigator[s] who [dig] into the history of the textual world by freely exploring a collection of documents” (“Will New Media” 343). If this is applied to the *Ingress Investigate* database hypertext, Ryan’s statement leads to the observation that readers transform into investigators, as the title of the website clearly denotes, since they can freely roam in the spatial structure of the text/archive offering them multiple options. Even PAC confirms the readers’ role as investigators by urging them to “[f]ollow the threads” and “[t]ravel through them” (“Additional Resources”), as shown earlier. Some readers may want to explore only particular anomalies, as shown above, or even search about a particular idea or character in the *Ingress* storyworld by typing a keyword in the space provided on the upper right-hand side of

the screen, entitled “Search this site.” The latter option also functions as a “magnifying glass,” to recall Ryan (“Interactive Onion” 40), allowing readers to further narrow down and customize their research of the archival narrative. Moreover, readers can choose to read the narrative by clicking on specific dates in the calendar section of the screen or use the menu and/or browse in a hypertextual manner by following the links that the text itself provides, as already shown. Additionally, the users themselves can choose how deep they want to go into the narrative. For example, in the hypertextual structure described above, some users may choose not to read the narrative about Suzanna Moyer, thus not clicking on the relevant link the text provides. However deep they have entered into the narrative, the readers “can always return again to the main menu with one click,” to quote Ryan’s words (“Interactive Onion” 41) when she refers to the fluid structure of the hypertext, and can start a new investigation of a different module, since this is a website and they can always go back and forward in the narrative by clicking on the arrows of their browser. In contrast also to the locative narratives of glyphs and media, where it is impossible for the readers to be aware of whether they have exhausted all narratives or not, here all the narratives are visible and can be revisited at any time. Furthermore, this database structure helps readers who are unfamiliar with the *Ingress* characters and narrative to visit the submenus, such as “Persons of Interest” and “History of the Investigation,” in order to be informed about the characters and the history of the storyworld respectively. Given that the *Ingress* storyline had been evolving in this website for many years before it was shut down, visiting these submenus offers readers the opportunity to bridge any possible gaps regarding the narrative. Therefore, each reader forms his/her own idea of the way the *Ingress* storyworld can be conceptualized. In this type of structure, readers are given the opportunity to experience the narrative uniquely by exploring only particular aspects of the *Ingress* storyworld, thus constructing personalized versions of it, as is exactly the case with the media hypernarratives in the previous section.

Despite the fact that the narrative seems to be the outcome of the readers' mental work resulting from their interaction with the text, the narrator's role should also be taken into consideration in the construction of this storyworld. H. Porter Abbott's reworked version of Mikhail Bakhtin's idea of the chronotope seems to account for the ways in which the storyworld is created in the *Ingress* screen-based hypertext. Bakhtin uses the chronotope to demonstrate that events in a narrative happen in the axes of time and space (Abbott, *Cambridge Introduction*, 2nd edition, 166-67). Yet, Abbott adds another factor, the narrator's consciousness, which brings the narrative world into being (166-67). This is what Abbott calls "the mind of the fictional creator" of the storyworld, an entity that is "everywhere at once," in the sense that "a narrative world is saturated by [this mind] and meant to work as a reflection of [its] troubling concerns in the present" (167). It can be claimed that, on the basis of Abbott's views, the stories in *Ingress Investigate* are narrated from the perspective of the fictional creator of the archival hypertext, PAC, who acts as a journalist recording and documenting the events taking place in the *Ingress* storyworld by bringing forward his personal testimony in the form of articles. PAC is actually the fictional equivalent of the actual authors of this narrative. But Abbott continues: "[T]he mind in the text is an open, fractured, evolving, mind, made up of a collection of different voices always in conversation. [...] [G]oing from point A to point B in almost any narrative is not just a matter of time, nor of space, but also something that can only be expressed figuratively, as, say, a piling up of layer upon layer of awareness" (167). Although the spatial design of the archival hypertext indicates that events can actually be read according to when they happened, as is revealed by the use of the calendar, the text is indeed "open" and "evolving" due to its expandable quality, since new articles are constantly added to the archive almost on a daily basis, as happens with the media hypertexts; this text is also "fractured" because each narrative offers multiple perspectives of the storyworld. Moreover, the experience of reading the hypertext generates a layering effect — "a piling

up of layer upon layer of awareness,” to quote Abbot (167) — since the narrator brings in the text lots of disparate elements/stories, contexts, and voices together, inviting the readers to follow their own narrative path, thus building their own reading experience, as shown.

The mind or consciousness of the fictional creator is reflected and visualized even more vividly in the other *Ingress* website, *Niantic Project*, which, as PAC attests, “was the original Investigation Board [he] created to help reveal information about XM” (“Additional Resources”). In particular, the website bears also the form of a timeline, creating an effect of multi-layeredness resulting from the way the narratives are spatially designed and structured on the screen. While investigating the archive, the readers gradually reveal the narratives, which are PAC’s resources in the form of videos, documents, and photos. These narratives appear in the form of piles, one upon the other, resembling a desk cluttered with objects. Thus, even the form of the narrative creates the impression that it is a vast and infinite informational network, where everything can be linked together. Taken together, both websites place emphasis on the expansive impression the narrative creates, despite the finite number of stories they include. Thus, they ought not be seen as self-contained systems, but as open-bordered, in that their loose and unfixed structure suggests the potential inclusion of an infinite number of other texts in it that embellish the core story scenario.

This brings to mind Markku Eskelinen’s idea of the textual whole, which can be used to describe the glyph and media hypertexts as well. Eskelinen inquires: “[w]hat is the textual whole (or the literary work) if it [...] cannot be read in its entirety, if only a few of its signifiers can or will be shared by all its readers?” (*Cybertext Poetics* 69). In incorporating dysfunctional locative as well as vast web-based hypertexts, *Ingress* casts doubts as to whether “readers should read the whole text in order to be able to fully comprehend and interpret it,” since “the traditional textual whole may vanish or disappear from the reader’s grasp,” as Eskelinen would argue (70, 73). While this is clearly evident in the glyph and media

narratives, which, in being themselves dysfunctional and incomplete, do not reveal the textual whole, as already proven, PAC's archival hypertexts render this concept of the textual whole even more problematic. Is the textual whole of these archival hypertexts unattained, despite the fact that the number of "articles" included in the website is finite? Eskelinen himself asserts that hypertext merely obstructs meaning creation "without rendering impossible the conventional goal of reading," since persistent readers will eventually complete the reading process (81). Taking this into account, the impossibility of attaining the textual whole in PAC's hypertext cannot adequately be explained as a direct consequence of the vastness and expandability of the mind in the text either. Instead, in this hypertext, this very impossibility is portrayed "as both permission and instruction," to use Eskelinen's words (85). In fact, PAC instructs his readers/investigators on how to read the archival narrative, verifying that "[n]obody has the whole picture" as well as prompting them not to "be overwhelmed. There are thousands of items to read, listen to and watch. You don't need to know everything to be empowered, only what will guide your thinking for the challenges you face today" ("Getting Started," "Additional Resources"). The narrator acknowledges that the vastness and the branching structure of the hypertext as well as the abundance of stories included may transform the act of reading into an ever-expanding experience for the readers. To reassure the readers, PAC informs them that they do not need to read the textual whole, since no one has achieved this thus far. PAC allows readers — gives them "permission," in Eskelinen's words (*Cybertext Poetics* 85) — to investigate the text at their own will, "[taking] things a step at a time" as well as "[f]ocus[ing] on the journey, not the destination" ("Additional Resources"). He even encourages player collaboration for the construction of meaning, asking players not to "go alone," but "[u]se the social networks and comment threads to talk to other Agents about [their] discoveries and questions" ("Additional Resources"). Therefore, the narrative plays with the idea that it is the process of investigation and discovery that matters

rather than the act of attaining the textual whole of the *Ingress* narrative. In this manner, the narrator challenges the way we choose to interpret narrative reality as well as the way we position ourselves in or against it.

Concluding this section, it would be worthwhile to draw attention to what unites all four types of narratives together: the mission narratives, the glyph (pseudo-)narratives, the media narratives, and PAC's web-based hypertext narratives. A crucial question that remains to be answered is the following: taken together, can all three types of hypertext narratives lead to the creation of a narrative thread or a story line? Abbott addresses this question when discussing hypertext linking. He writes:

Is the hypertext linking function deployed in such a way that we continue to look for, and occasionally, find, the thread of a story? Or does it so disburse [*sic*] attention from the story line that we see the whole thing as something other than narrative? Nelson Goodman argued that if you twist up the narrative discourse sufficiently, a text can pass from being a narrative to being either a "study" or a "symphony," arousing respectively either a state of meditation or a state of pure aesthetic enjoyment. (*Cambridge Introduction*, 2nd edition, 34)

Abbott continues by saying that this is a grey area "because determining when the twisting has sufficiently obscured narrative coherence is a subjective judgement call" (34). In calling such a decision "a subjective judgement call," Abbott, like Ryan as shown earlier, also leaves it to the readers to decide whether a hypertext ought to be considered a narrative or rather a "study" or "symphony" in its broader sense. I would actually avoid using the word "symphony" to describe the *Ingress* hypertext narratives because the notion of the symphony implies that, although it is experienced as a whole that consists of different voices, one experiences the full effect that is created, which is not the case in *Ingress*, as it evades the textual whole. On the contrary, it could be argued that the layering effect analyzed earlier potentially makes the readers deviate

from the central storyline as a result of the multiple links and “articles” of which the hypertexts consist. Rather, I would prefer to use the word “study” or even better retain the notion of “investigation” the designers of the *Ingress* hypertext suggest, in order to emphasize the exploratory role of the readers as well as the unique and personalized versions of the narrative the readers can construct as part of their investigation of the *Ingress* storyworld. However, I agree with Abbott that “[a]ttention in these texts is focused not so much on figuring out the story (though some of the narrative fragments are certainly tantalizing) as enjoying the way the lexia play off against each other” (34), especially in the case of the glyph and media hypertexts. In the case of PAC’s hypertexts specifically, if one has to reach a destination in order to understand the story, then this is unattainable because, once again, “nobody has the whole picture,” as PAC confirms.

Despite this, I have been approaching *Ingress* as a post-hypertextual form so far because it combines two types of hypertextual structures, those of locative (spatial) and electronic (screen-based) hypertext, which can be conceptualized in a variety of ways, namely sculptural, jigsaw puzzle, archive. All these highlight the cybertextual aspect of *Ingress*. According to Espen Aarseth, “the cybertext *is* a game world; it is possible to explore, get lost, and discover secret paths in these texts, not metaphorically, but through topographical structures of the textual machinery” (*Cybertext* 4; emphasis in original). On the basis of this definition, *Ingress* constitutes an example of cybertext, as it is a text that can be accessed through secret paths leading to various locations, both physical and digital, that the users explore and interact with not only by visiting different locations, but also by accessing websites through the hidden options in the mobile game app. Eskelinen offers an updated version of Aarseth’s cybertext theory by adding certain variables to the typology Aarseth has developed. These cybertext variables include dynamics, determinability, transience, perspective, access, links (sculptural and web), and user function. Eskelinen has reformulated and extended these variables.

Although it is not the aim of this chapter to analyze in detail these variables, it will suffice to mention even briefly which of these variables can be viewed in conjunction with *Ingress*. This will enable one to appreciate the ways in which hypertextuality can be reconfigured and redefined through locative gameplay. First of all, dynamics involves the permanence of the text: in the case of *Ingress*, the glyph pseudo-narratives appear temporarily on the screen. Moreover, since “[i]ndeterminability means that regardless of whether the user reacts or acts the same way in the situation, the system itself does not respond the same way in the same situation” (Eskelinen, *Cybertext Poetics* 75), this means that glyphs and media are indeterminable because interaction with portals yields a different text (meaning a media item or glyph sequence) each time. Glyphs are also transient because it is “the text, and not the reader [that] controls the presentation,” since the text is “available for [a] limited [period] of time” (75). Furthermore, neither glyph nor media narrative grants users “complete access to every part of the text,” while with media, “some parts of the text will remain hidden and out of reach despite the best efforts of the [user]” (77). Finally, Eskelinen incorporates locative media narratives in the discussion of cybertext typology, by proposing an additional variable, “the user position, to account for texts that require the user to be in a specific location, to move in order to be able to access and realize the text, combine physical and virtual spaces in non-trivial ways” (35). Eskelinen divides this variable into three sub-variables: autonomy, mobility, positioning (35-36). Since each user can experience the text “independent[ly] of other users” (35), in *Ingress* users are autonomous; they need to move in order to realize the locative narratives (glyphs, media and missions), but the archival hypernarratives do not require the users’ movement. Only glyphs, media, and mission narratives “require the user to be in a specific location [...] to access and realize the text” (36), that is only a few meters away from portals.

On the basis of the above, one could claim that, although *Ingress* does take the notion of hypertext a step further due to its cybertextual narrative structure, it also retains conventional sedentary hypertextual reading practices, as it becomes evident in the websites examined in this section. The final section will shed light on how locative gameplay can contribute to the creation of narrative in an attempt to show that the hypertextual form of *Ingress*, explained so far in this chapter, can be used as a storytelling tool.

3.3 Creating the *Ingress* Storyworld through the Sculptural Hypertext: Bridging Game and Narrative Elements

The abstract sculptural hypertext form described earlier in this chapter can be used for the creation of fictional narratives. These narratives, which will be investigated as case studies in this section, are the situation reports (or sitreps), which are a form of fan fiction created by the players themselves that can be accessed online, and the *Ingress* Reports that present the *Ingress* fictional (backstory) narrative in the form of *YouTube* videos. Although the backstory narrative is constructed by the designers of the *Ingress* game, the players also give shape to it during the anomaly events that form another type of hypertext in real time while playing. I will thus explore the relationship between the *Ingress* game and narrative, as well as the ways in which they engage into a perpetual feedback loop, with the game affecting the form that the narrative takes and the narrative affecting locative gameplay. The present analysis and application of hypertext theories to *Ingress* aims to demonstrate not only the storytelling potential of locative media, but also how locative media can be used in innovative ways in order to reconcile gaming and narrative elements.

In order to investigate the ways in which the abstract sculptural hypertext can lead to the creation of narratives, one needs to consider Ryan's theories of interactivity once again. Ryan proposes different ways in which users interact and relate with digital texts, thus

identifying different types of interactivity, besides the ones already proposed, those of internal and external as well as exploratory and ontological interactivity. These types permit different combinations, forming four different types of interactivity: external-exploratory, external-ontological, internal-exploratory, and internal-ontological. In external interactivity, according to Ryan, “users are situated outside the virtual world” (*Avatars* 108). In the model of experiencing *Ingress* I have proposed so far, interactivity has been external-exploratory, since users turn into “explorers” who “view the game-world as a space full of stories awaiting discovery,” to use Ryan’s terms (199). As already proven, they explore the various narratives of the *Ingress* universe by moving either in the physical space of the city in the case of missions, glyphs, and media, or the digital space of the computer in the case of the screen-based hypertexts, albeit without considering themselves to be members of the *Ingress* storyworld.¹⁷⁷

By contrast, in internal interactivity, “users projects [*sic*] themselves as members of the virtual world by identifying with an avatar” (Ryan, *Avatars* 108). As *Ingress* players move in locative space, their avatar that appears on the mobile phone screen, which is similar to the triangle used in Google Maps, moves as well. The virtual avatar that is displayed on the *Ingress* scanner coincides with the players’ own physical body, which is also an avatar in the game, moving in the physical urban space.¹⁷⁸ Most importantly, however, following Ryan’s argument, it can be claimed that interactivity in *Ingress* becomes internal when players are no longer external to the *Ingress* storyworld because they themselves turn into fictional characters. Viewing this in relation to Ryan’s observations about immersion, one could argue that *Ingress*

¹⁷⁷ Ryan also writes that in external-exploratory participation, “the user does not play the role of a member of the fictional world, and activity is limited to moving around a textual space” (“Interactive Onion” 44).

¹⁷⁸ This is because in locative gaming the player body “is *in* the game, and the game *in* the world, enacting a seamless continuity between the virtual and the physical, and conflating the vicarious link between body and avatar” (Richardson, “Pocket” 213; emphasis in the original). Interestingly, Montola et al. refer to this as a “flesh avatar” while describing ARGs: “a player’s body becomes a de facto game token, the flesh avatar of the player” (84).

players engage in “a game of make-believe that involves three mutually dependent operations: (1) imagining [themselves] as [members] of this world, (2) pretending that the propositions asserted by the text are true, and (3) fulfilling the text’s prescription to the imagination by constructing a mental image of this world” (*Narrative as VR* 2 77). The *Ingress* narrative verifies the fictionalization of the game itself and its players. Firstly, *Ingress* players are referred to as “agents” in both the game and narrative. Furthermore, in an *Ingress* Report, a player (an old woman) says: “I don’t know why I’ve become addicted to *Ingress*. I just have”; when Suzanna Moyer humorously replies, “It’s the XM,” the woman confirms that “It’s the XM, you’re right. It’s surprised me, it’s taken me over” (“#IngressFS and #DevraShards”). This example illustrates that the agent imagines herself as a member of the storyworld and, by doing this, she pretends and confirms that whatever the *Ingress* narrative prescribes is actually true, engaging into “a *willing suspension of disbelief*” (Miller 164; emphasis in the original), which is a characteristic of ARGs.¹⁷⁹

Moreover, it seems that the *Ingress* narrative denies the game’s fictionality¹⁸⁰ to the extent that *Ingress* appears to be “[d]isguised as a game,” as Suzanna Moyer reports (“INGRESS REPORT YEAR TWO - The Investigation (I)”). Indeed, Suzanna states that when “scanner technology was leaked, perhaps on purpose, to the general public[,] [i]t was later uploaded to Google Play Store as a game” in order “to enable individuals around the world to become unwitting agents in the struggle to control the spread of Exotic Matter” (“Ingress Year One, Part 1,” “INGRESS REPORT YEAR TWO - The Investigation (I)”). This is also verified in the *Ingress* web-based hypertext, which reveals that, after Jarvis’s death, “the *Ingress* Scanner app [leaked] to the public,” and, as a result, “many people around the world discovered

¹⁷⁹ Carolyn Handler Miller states that in ARGs (alternate reality games) and transmedia storytelling, “transmedia storytellers [...] aspire to captivate their audiences and induce them to experience a *willing suspension of disbelief*. In other words, they want their audiences to buy into the story, become totally absorbed in it, and at least temporarily believe it to be true and not question its validity” (164; emphasis in the original). This is also the case in *Ingress*, as proven.

¹⁸⁰ In the sitrep that is going to be analyzed further down, the game’s fictionalization is even more evident.

that they were Sensitives, capable of using the XM Scanner (which was camouflaged as a game called '*Ingress*') to interact with XM Portals" ("History of the Investigation"). Therefore, the *Ingress* narrative clearly presents the game itself as not being a game, thus conforming to the principle of "This Is Not A Game" that is evident in Alternate Reality Games (ARGs). This principle is further reinforced in the game's tutorial, where players listen to ADA's voice saying: "Do not be afraid. You have downloaded what you believe to be a game, but it is not." PAC himself in an *Ingress Prime* video asserts that players "have two choices: [they] can go back to pretending [they]'re playing a game, pick a side, capture portals, throw fields, [...] or [they] can realize that the world around [them] is not what it seems. There is no game here; there's a conspiracy that has the power to shape our future." This is reminiscent of the mobile game *Flynn* and Burton play in Gibson's *The Peripheral* commented on in Chapter One, which proves to be real instead of a simulated environment. As is the case in Gibson's novel, similarly in *Ingress*, virtual and physical space also appear to be identical, according to the narrative. In fact, the virtual space of the mobile phone is presented as an actual/material presence in the *Ingress* narrative. In his online lecture on *Ingress*, Brandon Badger states that the smartphone in *Ingress* serves as "a window into [an] alternate space, [an] alternate reality," something that is also evident in *The Peripheral*, as shown in Chapter One. According to the *Ingress* narrative, *Ingress* players carry with them in their mobile phones a portal to another dimension, which is the alternate universe of the Shapers who try to communicate with humans via the *Ingress* scanner with their glyph language. The *Ingress* scanner is "used [...] to discover the forces that reach through it, like the Shapers and the N'Zeer," as another *Ingress* video reveals ("The Osiris Sequence"). The N'Zeer is a force that "gave [humans] the technology [they] needed to create *Ingress Prime*," which "will grant access to a new universe" ("The Osiris Sequence"). In this universe, agents have the opportunity to change the results of certain anomaly events that happened in the *Ingress* storyworld, in a similar manner that *Flynn* and

Wilf attempt to do in *The Peripheral* through time-travel. This alternate universe then is a virtually-accessed dimension that appears to be equally real to the agents' external reality in the *Ingress* fictional narrative. The materiality of the virtual space in this case is indicated by the fact that the Shapers themselves who belong to another dimension are presented as real beings. That is, in the fictional world of *Ingress*, what appears virtual in the scanner is real in another dimension, as is the case in *The Peripheral*. The same applies to Exotic Matter, which, although invisible in the real world, is real because it influences the human mind, but can only be accessed and collected via virtual means in the fictional world of *Ingress*. Therefore, while *Spook Country* fictionalizes locative space to explore locative technologies, *The Peripheral* and *Ingress* fictionalize locative technologies — the mobile phone and the *Ingress* scanner respectively — by rendering the virtual space of the mobile phone physical, that is a space that, although it can be accessed through the smartphone, is “virtually physical,” to use Gibson’s words in *The Peripheral* (468).

Furthermore, the players’ actions in locative space are narrativized and presented in various forms. The term that is useful here is Ryan’s “retellability,” which takes place “[w]hen players of computer games recount their experience, [...] by telling a story” (*Avatars* 191). Re-appropriating Ryan’s theory, I would argue that the *Ingress* narratives are created as they are being (re)told or narrated not only by the players themselves, but also by the game system or the game designers. In fact, retellability in *Ingress* is evident in the COMM section of the *Ingress* scanner, in the *Ingress* reports, and the situation reports. Firstly, as is the case in traditional computer games, in the COMM section of the *Ingress* game the players are informed about the AP points earned while playing as well as the actions other players or themselves have performed in locative space, and they can also communicate with other players. In particular, the game system notifies players when they hack a portal or when other players or themselves create links or fields. The players may be notified, for example, that Agent X linked

[portal A] to [portal B] or that Agent X attacked and captured their portal. Such examples can be regarded as having a low degree of narrativity, like the glyph pseudo-narratives, because they constitute narrativized player actions that are also presented to the players in the form of notification emails, which are “pull channels” or “pull media,” since they require that “players [...] check up on their messages actively” (Montola et al. 188). This kind of notifications show what computer games scholar James Paul Gee would call “the virtual real stor[ies]” or “the players’ trajectories” (James Gee), which are the paths that each player takes and the actions players perform. These correspond to the various instantiations of the *Ingress* game that are created each time in every run of the game by one player or different players. All these instantiations are created after “being enacted” by players and “narrated” by the game system (Ryan, *Avatars* 116). In Ryan’s view, “[e]very run of the system produces a new life, and consequently a new life story for the avatar,” but these life narratives are created in real time, that is “dramatically, by being enacted, rather than diegetically, by being narrated” (116). Through retellability one can “[*experience*] the game narratively,” as Ryan attests (193; emphasis in the original). With her theory of retellability, Ryan highlights that the players’ actions are not actually stories insofar as they are narrated or (re)told. Moreover, in the *Ingress* Reports, the fact that the players’ actions are retold is evident in the section where Suzanna encourages agents to “send [...] a link to [their] sitreps or videos documenting [their] major operations” “if [they] want to see [*their*] story on the *Ingress* report” (*Ingress* Report 14, emphasis in the original). Indeed, Suzanna calls attention to the major “cross-country and [...] cross-continent” and even cross-faction agent operations (*Ingress* Report 10), which constitute the players’ stories. Finally, Suzanna records the achievements of each faction in the anomaly series, that is, the faction that wins the games in each city, which is another indication of how the agents’ actions are (re)told/narrated in the form of stories that are presented in the *Ingress*

report. Evidently, the various forms the abstract sculptural hypertext takes in locative space are used to create personal stories that are eventually incorporated in the *Ingress* narrative.¹⁸¹

The agents' personal stories are also narrated in the sitreps, which constitute another form of game retellability.¹⁸² The sitreps that were created as part of the "Dark XM" operation that took place in 2018 constitute one of the most striking examples of the ways in which the abstract sculptural hypertext is narrativized and fictionalized. In March 2018, Niantic published a document in the G+ platform stating that "NIA Researchers have uncovered worrying energy patterns within the Portal Network" ("Dark XM Threat & Response Operations"). According to the narrative, this constituted an unprecedented kind of anomaly in the Portal network, which was permeated by "an unknown Dark XM system" ("Dark XM Cure"). As is the case in computer games, narrative here functions as a way to engage players in the game as well as provide them with instructions on their next strategic moves. Indeed, as the Niantic narrative itself reveals, "[a]gents around the world are now asked to help the Researchers in containing the potential threat" ("Dark XM Cure"). In Phase 1 of this Dark XM Cure operation, players were asked to "[h]ave at least 50 links to/from a specific portal at a measurement time" ("Dark XM Cure"). This means that, as happens in every anomaly event, in this anomaly the links that groups from each faction had created at a given moment in time at specific portals were counted, which is used to measure the achievements in the two factions. This global operation resulted in each group of agents worldwide creating their own sculptural hypertexts by drawing a great number of links from specific portals in specific cities, sending also their sitreps to

¹⁸¹ According to Shira Chess, these are local narratives that "intersec[t] seamlessly with larger game narratives of globalism" (1115).

¹⁸² Another reason I choose to analyze the sitreps as narratives is that I find Ryan rather limiting in her approach to the function of retellability of games, as she places those retellings under the category of "Stories about Games" (*Avatars* 191). Souvik Mukherjee, on the other hand, goes so far as to suggest that those retellings or paratexts ought to be considered as "minor literature," insisting also that "critical analyses of narratives need to address issues in addition to those that have traditionally been taught in classrooms" (120). Like Ryan, however, Mukherjee contends that "[t]he video game-text [...] is not obtainable in its *essence* but only in its played instances and [...] these played instances can be accessed and analysed through the paratextual records" (116; emphasis in the original), as is the case of the sitreps in *Ingress*.

Niantic which were later published through social media platforms such as Telegram and Google+. These sculptural hypertexts take the form of virtual stars which are formed in the locative map by drawing multiple links from a particular location to many others.

The sitreps not only describe the strategic operations of players during the anomaly event, but also they place them within a fictional framework, as is evident in the following excerpt from a sitrep by agents in Prague, Czech Republic:

In the beginning there was Niantic and they via their Vanguard's preached to enlighten the most beautiful cities in the world with stars. Star to brighten up the blue darkness of Europe. Among the honoured cities was Prague, home to CrazyCZechs. [...] Handful of enlightened hermits started to weave star plans. Under the veil of darkness and despite the weather a thorny journey begun [*sic*]. Key gathering happened without a single burster fired and help of Niantic's prophets Heat Sink and Multi Hack. Our only support was the merciful embrace of a nearby phone booth. The booth sheltered us from the perilous weather and provided us the necessary masking from seeking eyes of blue resistance. Nobody wanted to deprive the other enlightened of the exciting event, who were invited for a nice Saturday stroll to clean up the blue Void that's been struggling to replace the green Hope. [...] The goal was revealed: to build a bright star to South Fountain. Quick team assignment and silent transfer to target locations. At 1345 CET bright voice from above ordered them to light the star core and the light began to spread through darkness. [...] The star shone for one hour withstanding attempts to destroy it. Star's light was terminated by a mean strike of entity know [*sic*] as ADA deployed by a dragon lady. Not even her can extinguish the light in our hearts. ("In the beginning there was Niantic")

This sitrep narrative focuses on the struggle of the Czech Enlightened players to complete Phase 1 of the Dark XM challenge despite "the perilous weather" conditions. As is the case in

Spook Country in Chapter One, the strategic locative space here is constructed through language in the narrative, with references to both the physical and the virtual space, which create an effect of spatial hybridity. Phrases that denote the players' movement, actions, and cooperation with other players within the physical urban space — “The [phone] booth sheltered us from the perilous weather and provided us the necessary masking from seeking eyes of blue resistance,” “Quick team assignment and silent transfer to target locations” — co-exist with phrases that highlight actions in virtual space — “[k]ey gathering happened without a single burster fired,” “to build a bright star to South Fountain.” As is the case in *Spook Country*, but also in the *Ingress* mission locative narratives, immersion in the locative space here is distributed between the physical and the virtual space. Apparently, the players plan their strategic moves in both physical urban and virtual space, that is the hybrid space of the *Ingress* gameworld, in their attempt to coordinate their team and avoid the Resistance agents (in the physical world) in addition to collecting virtual objects, such as portal keys, in order to create the virtual starburst by linking portals (in the virtual space of the mobile phone).

Interestingly, this sitrep narrative of the players' actions in the locative gamespace of *Ingress* is embellished with fictional content. The deployment of phrases like “Niantic's prophets Heat Sink and Multi Hack” and “Star's light was terminated by a mean strike of entity know [*sic*] as ADA deployed by a dragon lady” intensifies the fictionality of the narrative, as it demonstrates that the players, who have now turned into producers of narrative or writers of fan fiction, are aware of the fact that they belong to a fictional storyworld. These players interpret their moves as fictional, relating them to the *Ingress* storyworld, by depicting Heat Sink and Multi Hack, which are virtual objects that are used to enhance a portal's defense while playing, as Niantic's prophets. At the same time, they view the destruction of the portal's defense by the Resistance as “a mean strike of entity know [*sic*] as ADA.” Importantly, instead of merely recording their actions, players endow them with a fictional or epic layer. The actions

of the Resistance players are described through particular words and phrases related to darkness — “veil of darkness,” “blue darkness,” “darkness” — juxtaposed with words and phrases that relate to light that characterize the actions of the Enlightened players — “[s]tar to brighten up the blue darkness of Europe,” “the light began to spread through darkness,” “bright star,” bright voice,” “the light in our hearts.” While in this sitrep narrative negative connotations are attributed to the Resistance players whose fields in locative space are characterized as “blue darkness” and “blue void,” the fields created by the Enlightened players are provided with a positive connotation by being referred to as “green Hope.” Light also relates to the Enlightened, while darkness refers to the black color of locative space on the mobile phone screen when no action is performed by players, which also becomes blue when it describes the blue fields created by Resistance players. This juxtaposition of color symbolism intensifies the mysterious atmosphere of the fictional narrative, further immersing the readers of this narrative in the fictional world of *Ingress*. This sitrep narrative enhances the rivalry between good and evil, the good being in this case the Enlightened and the evil the Resistance. Therefore, from an abstract sculptural hypertext formed through locative gameplay, *Ingress* turns now into a game space with a fictional storyworld in which players do not refer “to their game playing as a rule-based game,” but they choose “to explain every interface element or out-of-game action [...] by way of elaborate fictional argumentations,” as Jesper Juul would argue (187-88). Moreover, while this kind of conflict between the two factions is initiated in the main narrative, it is now maintained and extended in the fictional narratives produced by players. Through retellability the players’ strategic actions are not only narrativized, but they are also covered in a fictional layer. Importantly, these scripts emerge from the trajectories the players follow in locative space while playing. In this regard, the players who create the sitreps belong to the category of “socializers,” who, as Ryan attests, “perform small narrative scripts of their own invention, and generally enjoy the enactment through role-playing of the narrative design written into the

game” (*Avatars* 199). This being the case, the above sitrep narrative serves as an extension of the main Dark XM narrative, since locative gameplay is incorporated into a fictional narrative that complements the *Ingress* backstory.

Furthermore, strategic space in this specific sitrep turns into emotional space. According to Ryan, emotional space “is an experience of space associated with affective reactions” and “through which stories are associated with specific locations” (“Conceptions” 106, 108). Ryan et al. also argue that “[i]n the emotional relation, spatial objects matter for what experiences they afford, for what aesthetic feelings they inspire, and for what memories they bring to mind” (39). These observations become evident in the above sitrep narrative first because the virtual spatial objects Multi Hack and Heat Sink are granted a mythical or epic dimension by being regarded as prophets probably because of their function of delaying the enemy from destroying the portal’s defense. Secondly, the virtual star that was created by the players is of particular emotional significance for them, which is demonstrated by the last sentence of the narrative: “Not even her can extinguish the light in our hearts.” If the heart symbolizes emotion, it can be claimed that this phrase signifies the players’ emotional engagement with locative space, since it expresses their negative feelings when the star is destroyed by the Resistance, but also a sense of optimism that at least this operation will remain alive as a memory. These players, to use Ryan’s words, “relate to space [...] for the sake of what it evokes in [their] imagination” (“Conceptions” 106). For the players, this specific portal, the South Fountain, will henceforth be “linked to [a story] that [...] matters to [them], either positively” because of their effort to construct the star, “or negatively” (Ryan 106)¹⁸³ because of the feelings of sadness its destruction evokes to them. Finally, emotional space is also constructed in the “Portal of the week” section of the *Ingress* Reports, which, in emphasizing

¹⁸³ In “Emotional and Strategic Conceptions of Space in Digital Narratives,” Ryan writes that “[e]motional space has a special affinity with stories and with memories—it is because it is linked to stories that it matters to us, either positively or negatively” (106). This is also the case in *Ingress*, as shown.

the (historical and cultural) significance of portals, encourages players who submit and discuss the portals of the week to develop a sense of place; in so doing, these players immerse themselves in physical space. Therefore, as Ryan contends, “[l]ocation-based games involve a strategic design of space, but many of them,” *Ingress* included I would say, “are conceived in such a way as to take players to interesting locations,” using Ryan’s words (113). In this light, locative media and interaction with locations through locative gameplay enables the construction of narrative spaces that are both strategic and emotional.¹⁸⁴

Turning our attention back to the concept of interactivity, Ryan argues that interactivity is ontological when the players “writ[e]’ the life (or lives) of [their] character[s] and, by extension, the history of the entire world, since a world’s history is the sum of the personal histories of all of its members” (*Narrative as VR 2* 164). This being the case, interactivity in *Ingress* becomes internal-ontological when players are part of the fictional storyworld, as shown, but they also determine the fate of characters in this storyworld, which is what actually happens in the anomaly events. As the *Ingress* hypernarrative reveals, “[a]nomalies are special moments in time when [the agents’] actions can shape the future” of the *Ingress* storyworld (“A Dangerous Path”). This is because the players’ actions in the abstract sculptural hypertext of *Ingress* during the anomaly events directly affect the way the narrative is formed. All strategic actions affect the result of the anomaly events, which determines the direction that the narrative takes: depending on the faction that wins the anomaly each time, the narrative takes a different direction that is determined by the players. Even the founder of Niantic, Inc., John Hanke, confirms in a conference presentation that the *Ingress* designers have “put the fate of [the] characters and the story in the hands of [the] players,” allowing them to “shap[e] the narrative through their gameplay.” The game designers also comment on the interactive nature

¹⁸⁴ In this sense, following Ryan’s ideas, one could claim that locative space in *Ingress* remediates “the space of computer games [which] can be experienced both strategically *and* emotionally” (“Conceptions” 114; emphasis in the original).

of the anomaly events, stating that the “narrative is very interactive: [...] if the Enlightened win then something good happens for them, if the Resistance wins, then the story takes another turn; so it’s a little bit like a ‘pick a path,’ except they don’t know exactly what the consequences are” (Hanke and Dille). For example, if the Enlightened had won the Darsana anomalies, the arrival of the N’Zeer would be blocked, while “the [...] Resistance victory during Darsana sets the stage for the arrival of the N’Zeer in the near future” (*Ingress* Report “#DARSANA FINALE”). Thus, as is the case in traditional computer games, the *Ingress* narrative motivates players to play in groups in order to fulfill a specific goal.

This kind of interactivity is clearly illustrated by the so-called “shard” games played in the anomalies. In many anomalies, agents are required to control shards, which are virtual objects that can be transported from portal to portal. Agents link portals, thus forming the sculptural hypertext as already shown earlier in the beginning of this chapter, in order to transfer the shards to specific portals each time. In the fictional world of *Ingress*, many characters disappear, abandoning their human identity by turning into XM entities or simulacra. This being the case, the shards constitute fragments of the characters’ identity and memory that, if transported to specific portals by agents during the anomaly events, the characters are resurrected and acquire a human form again. The faction that wins the anomaly by controlling the shards also gains control of the character to whom these shards belong. For example, as Suzanna reports, in the Persepolis series of anomalies, Dr. Stein Lightman’s “fate is [...] at stake as the factions struggle for control of his XM shards,” while “the faction that controls the Persepolis anomaly will ultimately shape [his] future” (*Ingress* Reports “#Persepolis Anomalies Approach,” “#LightmanShards Emerge”). Eventually, it appears that “by controlling Persepolis, [the Resistance] have [...] won the allegiance of Niantic researcher and glyph expert Stein Lightman” (*Ingress* Report “#Persepolis Finale”). Interestingly, Suzanna informs us that, “[a]ccording to Chapeau’s analysis, if the Resistance control the Abaddon

series, all the Niantic researchers may remain simulacra in order to better serve the N'Zeer's purposes[,]” but a possible Enlightened victory will “[return] all the researchers to their human form” (*Ingress* Report “#Abaddon Finale Approaches”). The Abaddon anomalies are finally won by the Resistance managing to “awaken the researchers, while preserving them as simulacrum” (*Ingress* Report “2015. Year in Review: The Investigation”). In a similar manner, the Enlightened win the 13MAGNUS anomaly series because they manage to transfer Jarvis's shards and, as a result, Jarvis resurrects and “re-emerge[s], walking and breathing, at a Portal in San Francisco” (“History of the Investigation”). After the Enlightened victory, as the *Ingress* Report 39 attests, Jarvis presents himself as a real human being talking in front of the crowd, saying: “My name is Roland Jarvis. And I exist. I stand before you on borrowed time.” Interestingly, the narrative is first presented to the players in real time as a theatrical performance with Jarvis as a real actor, and later the results of the anomalies are presented in cinematic form in the *Ingress* Reports as well as in textual form in PAC's online hypertexts.¹⁸⁵ Therefore, as Hanke also asserts, the game designers “have an effect on the narrative based on which faction wins or loses.” This is even more explicitly evident when ADA's “connection to the N'Zeer [is] broken because of the Enlightened victory during” one of the Abaddon anomalies (“PAC: ADA's Unlikely Suitors”), and ADA is later presented in a media item blaming the Enlightened of “destabiliz[ing] [her] connection to the N'Zeer” as well as “ruin[ing] everything, [their] future,” actually deploring by saying: “Enlightened agents, what have you done?” (“ADA: Message Recovered in Okinawa”). Overall, the above instances constitute examples of internal-ontological interactivity in *Ingress*, since players actively contribute to the formation of the *Ingress* storyworld through locative gameplay.

¹⁸⁵ Suzanna Moyer actually summarizes the *Ingress* narrative that is being presented in G+ and PAC's hypertext I explored earlier, providing the most important events of the narrative. As one of the *Ingress* designers has argued, “Suzanna [essentially] recaps player activity and the story every week” for those players who are overwhelmed by the vastness of the narrative (Hanke and Dille).

This being the case, it can be argued that *Ingress* anomalies work in a hypertextual manner as well. The kind of hypertextual interactivity that is formed here can be described as “a tree lying on its side,” to use Ryan’s words (Ryan, *Avatars* 105). Ryan argues that in this kind of interactivity, “[a]ll it takes to turn the system of possibilities that underlies all stories into an interactive narrative is to let the user make the decisions for the characters at every branching point” (Ryan, *Avatars* 105). This is what happens in the *Ingress* anomalies as well, where this decision is actually made by players in groups. In this sense, a different kind of narrative emerges here. Even though there is no clear narrative voice, it is the gamers themselves who gain the role of the narrator. In fact, locative gameplay in the *Ingress* anomalies works as a hypertext that is experienced in real time, in which the users are given the two narrative choices, and the choice that is finally made is determined by the faction that wins the game in every anomaly. In this manner, the anomaly events serve as narrative vectors in the fictional hypernarrative. That is, as the game designers mention in an interview, *Ingress* has “branching outcomes” and “decision point[s]” (Hanke and Dille), which echoes Ryan’s own views about the branching points in a story. This kind of interactivity is reminiscent of early screen-based hypertexts in which the users’ choices lead to specific transitions in the narrative presented on the screen.¹⁸⁶

On the other hand, the *Ingress* narrative may also affect locative gameplay or, in other words, the agents’ actions in locative space. An example of this is when in 2016 the victory of the Enlightened in the Obsidian anomaly led to “a massive, worldwide XM drought” in the game (“PAC’s Weekly Wrap-Up: April 3, 2016”; emphasis in the original). In turn, this kind of disappearance of all Exotic Matter affected the players’ strategic decisions as well as the ways in which they interacted with locative space. In particular, players had difficulty in

¹⁸⁶ However, the game designers also state that sometimes the outcome of the anomaly is the same regardless of which faction wins, although agents may not be aware of this (Hanke and Dille). This very fact lessens to a significant degree the players’ power to shape the narrative. In other words, as is the case in some traditional hypertexts, the readers’ freedom of choice is illusory, since the path is predetermined by the author.

playing the game because they did not have enough XM to power up their avatar, and thus they had to resort to alternative methods and strategies in order to play the game. In relation to this, the narrative focuses on the collaborative aspect of the game as a solution to this problem, inviting players worldwide “to work together both within and across [their] Factions in order to restore balance to the world” (“PAC’s Weekly Wrap-Up: April 3, 2016”; emphasis in the original). Andrew Burn and Diane Carr notice the existence of “communal motivation” in computer games (111), which is also evident in *Ingress* because players are motivated to work and organize their strategies in teams. This XM drought serves as a motive for players to collaborate in their effort to invent novel ways to play the game and engage with locative space, such as exchanging virtual objects like Power Cubes in order to power up their avatar. Following Juul’s theory of abstraction in games, it becomes evident here that the players can choose, on the one hand, “to play the game as if it were an abstract game, [...] plan[ning] strategies by considering the abstract rules of the game exclusively,” while, on the other hand, they can “[use] the knowledge that [they] have from the game fiction” (186). In the first case, the players’ collaboration with other players will emerge in time after realizing that they cannot play the game without XM, while in the second case, this collaboration can be seen as a direct consequence of the players’ “using the knowledge” from PAC’s narrative, as shown above, and acting accordingly. Therefore, on the one hand, although the sculptural hypertext that is formed through locative gameplay is abstract, it does shape the *Ingress* narrative itself; on the other hand, this narrative appears to also shape the players’ strategic decisions and actions in locative space.

These observations invite a reconsideration of the relationship between game and narrative. On the one hand, for narratologists, like Janet Murray, “it is always the story that comes first, because storytelling is a core human activity,” and “even abstract games such as checkers or *Tetris*” can be regarded as stories (“From Game-Story” 3, 2). On the other hand,

Aarseth accepts that games may include narrative elements, but he insists on the fact that all games should be called “games” and not stories or anything else (54).¹⁸⁷ Other critics take a more intermediary position, promoting hybrid forms of game and story. For example, Nick Montfort “recognize[s] that views of ‘story’ and ‘game’ as simple overarching categories can be counterproductive” (316); in discussing the “storygame” form, he claims that works of interactive fiction “*can* [...] involve story and game essentially,” in that story and game can “both [be] essential to the experience and [...] intertwined (313, 312; emphasis in the original). Ryan also promotes “the dual nature of video games” in her attempt to connect “the strategic dimension of gameplay to the imaginative experience of a fictional world” (*Avatars* 203), a view that echoes Aarseth’s insistence on describing all forms of gameplay regardless of whether these contain narrative or not. For example, *Ingress* is widely known as a locative “game,” not as a locative game that is tied to a narrative or vice versa, nor as a story-game or game-story. Even Ryan, who considers herself to be “defending an intermediary position” in the ludology-narratology debate, seems to be evasive when it comes to deciding whether games can be characterized as stories or games, merely stating that “some games have a narrative design and others do not” as well as focusing on the fact that “games [...] can be machines for generating stories” (*Avatars* 192, 188-89). Although Ryan’s theory of retellability has been effective so far as regards the discussion of how the *Ingress* narrative can be formed on the basis of the players’ stories, it fails to take into account the ways in which the ludic and the narrative elements converge in the anomaly events of *Ingress*, for example.

Alternatively, I would propose a different theory to discuss this relationship between game and story in *Ingress*, one that reconciles the two aspects more effectively by respecting the views of both ludologists and narratologists. In *Video Games and Storytelling: Reading*

¹⁸⁷ In “Quest Games as Post-Narrative Discourse,” Aarseth claims that “[c]learly, games [...] can *also* be used to tell stories, but this is probably an extreme end of a spectrum that runs between narration and free play, with rule-based games and quest games somewhere in between” (375, emphasis in the original).

Games and Playing Books (2015), Souvik Mukherjee rejects the ludologist's view that narrative is an additional element to video games, or a "prosthesis," to use his own terms (10).¹⁸⁸ Mukherjee does not prioritize game nor story elements, arguing that they are supplementary, as they can be seen as one supplementing and complementing the other: "the analysis of storytelling in video games needs to reflect the originary supplementarity between the literary and the ludic" (103). According to this theory of supplementarity, neither the literary nor the ludic are central, "although they are characterisable by a certain degree of centrality" (13).¹⁸⁹ This reflects the way I have interpreted *Ingress* in the present chapter, that is to say, as both a game and a narrative that intertwine and can be examined both separately and/or in conjunction with each other. Thus, *Ingress* can be experienced *only as a game* — in which case players are involved in a kind of abstract gameplay, forming a sculptural hypertext in the physical urban space — or *only as a narrative* in hypertext form — including locative hypernarratives, such as missions, glyphs, and media items, as well as screen-based archival hypertext narratives. However, *Ingress* can also be experienced as *both a game and narrative* that supplement each other, as is the case in the hypertext that is formed in the anomaly events. As Mukherjee would claim, "the story [...] is usually modified by the gameplay," something that is evident in the shard games in the anomalies, while "the gameplay has to change constantly to keep pace with the story" (13), as the XM drought example above illustrates. This echoes a self-referential comment about the co-influential relationship between the *Ingress* game and narrative made by a character who states in an *Ingress* Report that "the event shapes the people and the people shape the event" ("#IngressReport Raw Feed May.08.2014").

¹⁸⁸ To be more specific, Mukherjee writes that according to the Ludologists, "storytelling in video games is prosthetic to the playing experience" (10).

¹⁸⁹ More specifically, Mukherjee writes that "video games [...] work as a functional whole involving the player (game element), the story engine (story element) and the game engine (technology element). None of these is completely central in the manner the Ludologists tend to imply, although they are characterisable by a certain degree of centrality" (13). However, I appropriate this theory to *Ingress* in order to discuss the relationship between game and narrative in particular.

Finally, it can be claimed that *Ingress* can be experienced as a game that can be “read” — a readable game — after being narrativized through (re)tellability in the form of sitreps and *YouTube* videos (*Ingress* Reports), as well as a story that can be metaphorically played — a playable story — as is the case in the anomalies again, where the game shapes the story, and in the case of the *Ingress* hypertexts where the readers interact with the text in a playful way in order to construct the plot¹⁹⁰ as if it is a jigsaw puzzle.¹⁹¹

All things considered, in this chapter locative media can be viewed as a means through which a different and diversified narrative experience can be achieved. I have explored the various forms of narrative hypertextuality that are evident in *Ingress*, using locative media and hypertext as tools in an attempt to unite all the game and narrative elements contained in it. I have argued that *Ingress* constitutes a post-hypertext form, to use Rettberg’s terms, as it constitutes an assemblage of multiple hypertext structures: the abstract sculptural locative hypertext form, the sculptural locative hypertext narrative, the dysfunctional locative glyph and media hypertexts, the screen-based archival hypertexts, and the tree-structured hypertext evident through locative gameplay. This being the case, users are offered multiple ways to experience *Ingress*, that is either through abstract locative gameplay, fulfilling missions, glyph-hacking, searching for media narratives, participating in anomalies, or through combinations of the above. *Ingress* can thus be described as what Ken Rolston calls a “[f]ree-[f]orm [g]ameplay,” which characterizes open-ended, “[v]ast narrative games,” and involves

¹⁹⁰ I am borrowing the term “playable story” from Ryan who uses it to describe the relationship between interactivity and narrativity, writing that in a playable story, “gameplay is meant to produce a story,” while “the player’s actions are subordinated to narrative meaning” (“From Narrative Games” 45).

¹⁹¹ In a similar manner, one of the *Ingress* designers, Flint Dille, states in a conference that “for us our story is a game, [...] like this giant puzzle that you get a little piece of it every day or maybe a couple of pieces and you assemble it” (Hanke and Dille). Dille refers to the ways in which the *Ingress* narrative used to be formed through social media like G+, where agents were presented with puzzles and riddles that, if resolved, provided codes that could be used in the game. I use the jigsaw puzzle metaphor in the present chapter to refer to the hypertextual manner that the *Ingress* narratives are formed.

“understanding the impulses and sensibilities that [each] user brings to the experience, and presenting a setting rich and open enough to stimulate his reactions and responses” (120, 122). In this sense, the *Ingress* experience becomes personalized depending on how each user chooses to access and approach it.

Furthermore, by applying the hypertext form to *Ingress*, I have attempted to position hypertext theories within the context of locative media, and locative gaming in particular, demonstrating the ways in which *Ingress* can serve as an example of how hypertextuality and narrative, terms that have been explored throughout this chapter, are in a constant state of mutation, refreshment, renewal, and reconsideration. Firstly, in noticing that “hypertext fiction has been characterized as a process of becoming, of ongoingness, of imminence” (296), Belinda Barnet and Darren Tofts recognize the continuous evolution of the hypertext form, something that is evident in the constant mutations that the latter undergoes in *Ingress*. Similarly, in studying video games, Mukherjee notes that “the notion of textuality as a given is itself brought under scrutiny,” and thus “[i]nstead of attempting to ‘fix’ texts, one is aware that texts are in a state of becoming and that they can only be approached rather than established” (120). These references to hypertext and textuality respectively echo Rimmon-Kenan’s idea that narrative practice is also a process of perpetual becoming, to which I referred in the introductory section of this chapter. The discussion of these three theories together — Rimmon-Kenan’s, Mukherjee’s, Barnet and Tofts’ — in relation to *Ingress* has permitted me to stress the continuity there exists between narrative theories, hypertext theories, and game theories, when these are examined in conjunction with locative media, as well as to draw certain conclusions: hypertext is a dynamic, not static, form of textual narrative that functions in this chapter as a means to emphasize the fact that the concept of hypertextual narrativity needs to be renewed and expanded in order to be able to describe other digital media as well, such as locative media technologies. This being the case, hypertext is not at all “dead,” but it is

constantly renovated and re-appropriated to new forms of media, as Rettberg has rightly noticed. *Ingress* serves in this chapter as the testing ground for all the above realizations, owing to the fact that its storyworld and hypertextual form are evolving and expanding, even as new narratives are currently being added to the *Ingress Prime* platform. This offers new material with new characters abruptly and constantly entering the narrative.

What remains to be explored has to do with the literary value of *Ingress*. Although, as mentioned in the introduction of this chapter, games are not high literature, *Ingress* could actually be considered a form of minor literature, on the basis of Mukherjee's observations. Mukherjee resorts to Deleuze-Guattari theory in order to prove that "the video game-story" is "a form of minor literature," arguing that "[a]ny literature and language that shows the potential of not remaining limited to its obvious boundaries of meaning is, for Deleuze and Guattari, in the realm of the minor" (120). Hypertextual constructs, human bodies and identities are constantly shifting and changing in *Ingress*, something that renders *Ingress* a form of minor literature. For example, Hank Johnson, who is dead, is reincarnated in a body construct made of XM. Other characters attain a virtual identity by transforming into virtual objects, shards, as already shown, while others constitute hybrid identities, as they are part human part AIs, like Klue/ADA. Thus, both textual and human bodies are fluid and indeterminate.¹⁹²

Ultimately, placing the *Ingress* narrative within a broader framework of narratology, I would argue that *Ingress* ought to be viewed as part of the newly-emergent field of cognitive narratology. According to David Herman, cognitive narratology is "the study of mind-relevant aspects of storytelling practices, wherever—and by whatever means—those practices occur [.]

¹⁹² Following Mukherjee's ideas about video games, one could claim that *Ingress* can be viewed as a "machinic assemblage," which "illustrates a form of becoming[,] [...] with text, technology, mind, body and the senses expressing themselves within the machinic assemblage" (45). This happens in *Ingress*, where text, mobile phone, the users' mental processes involved in forming the plot as well as the users' bodies and senses converge. Since it is this process of becoming that, according to Mukherjee, renders "the computer game narrative [...] a 'minor literature'" (45), *Ingress* can also be viewed as minor literature, as it is also a form of becoming, as its narrative form and narrative themes indicate.

[...] encompass[ing] the nexus of narrative and mind not just in print texts but also in face-to-face interaction, cinema, radio news broadcasts, computer-mediated virtual environments, and other storytelling media.” Herman underlines a shift in the ways in which we think about the very concept of narrative itself, arguing also that “earlier narratological scholarship” should be “reconsidered from a cognitive-narratological perspective,” and “can be read anew, providing further insight into the cognitive processes underlying the (re)construction of narrative worlds.” In view of this, reading *Ingress* involves various cognitive processes, as it comprises multiple hypertext forms and different types of media: locative (hyper)texts, digital (hyper)texts, videos, audio texts. These narratives require “hyper reading[,] [which] differs significantly from typical print reading, and [...] stimulates different brain functions than print reading,” as Hayles observes (*How We Think*, 61). Indeed, using Hayles’ terms, one could argue that hyper-reading *Ingress* “enables a reader quickly to construct landscapes of associated research fields and subfields; it shows ranges of possibilities; it identifies texts and passages most relevant to a given query; and it easily juxtaposes many different texts and passages” (62). Regarding the process of reading, Hayles underscores that “[r]eading has always been constituted through complex and diverse practices[,] [and] [n]ow it is time to rethink what reading is and how it works in the rich mixtures of words and images, sounds and animations, graphics and letters that constitute the environments of twenty-first century literacies” (79). In a similar manner that the locative texts in Chapter Two reconfigure conventional reading practices, *Ingress* constitutes another example of how the notion of reading has changed, as shown in the present chapter. All these processes signal a change in the ways in which narrative is shaped in the minds of the users as a result of the intervention of new digital media and locative media in particular. The fragmented and complicated hypertextual narrative structures of *Ingress*, coupled with the distribution of the *Ingress* narrative in different modes and platforms, mirror the complexity of the cognitive processes that are required by the users/readers in order to

construct and comprehend the *Ingress* world. Evidently, the presentation of the narrative elements in *Ingress* affects the ways in which *Ingress* is experienced by the users, whose role is constantly negotiated and contextualized. In being part of a massive network, users shape the narrative by reassembling the narrative fragments, as I have shown in this chapter. Locative gaming permits the creation of dynamic spatial environments and (hyper)texts that expand beyond the limits of the printed book, as is the case with the locative texts explored in the previous chapter. What locative gaming brings to the fore is the ways in which narrative space, storytelling practice, and (hyper)textuality can be reconceptualized when examined alongside locative media technologies.

EPILOGUE

There has been an attempt in this Ph.D. dissertation to approach locative media technologies from a narrative perspective, in other words, to capture the storytelling potential of locative media within the context of North American Literature and Culture. The emergence of locative media has marked the beginning of a new era in literary practice that has gradually spread worldwide, bringing together practitioners and literature writers from different cultural domains. It is this emergence that has led to the reconditioning of narrative practice through the convergence of multiple media, both print and digital, which has affected the reading, writing, and storytelling experience. In this light, this project has delved into the exploration of diverse literary and narrative forms of expression in order to shed light on their fusion with locative media technologies. The examination of locative media through different media/texts (print and digital) has brought to light the potential of this technology as a narrative medium, but also it has exposed the different ways in which these media/texts are affected by locative media practice.

This project has examined the most characteristic manifestations of the convergence of locative media and narrative practice in the U.S. in the 2010s. The authors and practitioners studied in this project are some of the most representative in bringing narrative and locative media technologies together. Written a few years after the experimentation with locative media had begun, William Gibson's *Spook Country* and *The Peripheral* serve as a point of departure for the discussion of the rest of the texts analyzed in the present dissertation. Each one of these texts constitutes an important case study when it comes to the examination of locative media in conjunction with narrative practice and experimentation. The international value of these texts and projects also needs to be stressed, as they reach out addressing people from around the world. For example, the locative narratives one finds in *The Silent History* are situated not only in the U.S. but all over the globe, inviting people in different locations to experience the

texts, while also offering them the opportunity to write their own locative narratives. In a similar vein, *Ingress* prompts gamers to participate and collaborate in various events taking place all over the world.

Overall, the works explored in this doctoral dissertation function on two levels. On the one hand, an attempt has been made to “narrate” the locative by placing emphasis on the effects of the fictional embedment or remediation of locative media technologies in Gibson’s print fiction. Gibson has always been interested in newly-emergent technologies and has been theorizing about as well as contemplating and even criticizing new media technologies since the 1980s. What Gibson’s literary narratives bring to the fore in Chapter One is that, as newly-emergent technologies, locative media ought to be viewed with a critical eye in order for one to be able to appreciate its affordances and consider its constraints and repercussions on human subjectivity and its interconnectedness with space.

At the same time, special attention has been paid to various experimentations with locative media and narrative. The works discussed in Chapters Two and Three elucidate not whether locative media technologies have improved narrative practice, but rather how the convergence of locative media and narrative practices challenges and reconfigures the notions of narrativity, textuality, and readership, as these have been established by print-centric reading practices so far. In fact, a juxtaposition between print reading practices and digital locative practices seems to be inevitable when it comes to approaching locative narratives, given that print has been the fundamental medium of literary expression so far. This being the case, the cultural value of these texts lies in their ability to also resort to literary techniques that are different from — yet not superior nor inferior to — those used by the print medium in that they trigger alternative, as to the way they are delivered and visualized, literary outcomes. As a result, for the analysis of these texts, the technicalities of the mobile medium were taken into account in the way they affect the presentation of text, narrative, and reading practice. These

texts eventually generate a continuum from print to locative reading practices, while the juxtaposition between these two practices urges one to view locative reading practices as descendants of print reading practices. In fact, we are currently witnessing a historical transition from a solidly print-based textuality to a digitally-driven locative textuality and culture, which has brought forward a number of changes with regard to common-held reading practices and habits associated with print.

Ultimately, this is a transition into a more narrative-oriented use of locative media technologies that becomes evident in the creation of locative projects that incorporate narrative attached to specific locations. The digital fictional and non-fictional locative works examined in the current doctoral project actually blur the boundaries of what is considered to be “narrative,” by expanding and further reconfiguring the notion. In other words, this dissertation investigates different textualities that emerge from the intersection of locative media technologies with narrative practice; these textualities fall under the umbrella of narrative, which thus ought to be considered an all-inclusive term, following Ryan’s terms, as it needs to be expanded in order to describe locative media practices. What this dissertation has actually showcased is that narrativity and storytelling practice are dynamic terms in that they are constantly reconceptualized when viewed in conjunction with new media technologies and, in particular, with locative media technologies. The same applies to the notions of hypertextuality and hypernarrativity, which can also be re-appropriated to locative media, particularly in the case of locative gaming. My aim has been to offer the readers alternative ways of perceiving the concept of (hyper)narrativity due to the intervention of locative media technologies. Importantly, the study of the works examined in this doctoral project leads one to the realization that what can now be witnessed is only vestiges of a dynamic kind of locative media narrativity that is gradually emerging and can currently be located in the interstices of already established

genres and forms, borrowing elements from computer games, hypertext, sound walks, and even print narratives.

Certain difficulties were also encountered during the process of writing this dissertation. First of all, the problem of unifying the elements of each type of textuality examined in this project was resolved by devising flexible models of interpretation (space droning, scale of experientiality, post-hypertextual variations). Another difficulty that needed to be resolved had to do with finding a way to access and read the locative works examined in Chapter Two. Traveling to the actual locations where the locative narratives are attached was also challenging, given not only the long distances that needed to be covered, but also the fact that some of these narratives are located in remote areas, some of which were not easily accessible at the time of my visit. In addition to the occasional technical problems with data/Wi-Fi and GPS connection, another difficulty regards the restraints posed by the software of the locative works that were studied. Some of these works are only compatible with Apple devices and thus it was necessary to have access to an iPad in order to experience them. In this light, whether locative storytelling can be sustained and further popularized in diverse cultural contexts remains to be seen, since, despite the above-mentioned international range of these locative projects, locative media narratives do not seem to surpass the current limitations of the medium. Similarly, as far as *Ingress* is concerned, certain aspects of the older version of the application were not available after a period of time due to its recent update into *Ingress Prime*. On the one hand, this highlights the vulnerability of the digital medium, which becomes evident due to the immanent risk of its obsolescence and ephemerality brought about by constant digital upgrades and developments. On the other hand, the analysis and investigation of certain no-longer existing elements in the present project adds to their historicity and preservation, as has already been pointed out.

I conclude this project with the realization that it can hardly be considered to be complete, as there is still viable ground for further exploration and research to be conducted and covered due to the various questions it still raises as to the convergence of locative media and narrative. Needless to say, a future project may be more systematic by bringing more examples of this kind of convergence. In fact, all these texts, authors, and practitioners examined here do offer material for further investigation. For instance, Gibson's new novel, *Agency* (2020), also tackles the relationship between mobile telepresence technologies and space. Moreover, *The Silent History* can be further explored, as one may choose to analyze different field reports from the ones analyzed in the present dissertation situated in other urban centers than the ones chosen here. Such an investigation could possibly yield different results from the ones pointed out here, as mentioned in Chapter Two. *Ingress Prime* also offers a rich repository of material that can be analyzed, given the gradually expansive nature of its storyworld, with new characters constantly entering the narrative. Interestingly, Niantic has recently released a new augmented-reality, location-based game, *Harry Potter: Wizards Unite* (2019), which is based on J. K. Rowling's *Harry Potter* book series. It would thus be worth exploring the ways in which this popular narrative is adapted to a locative game in tandem with the relationship between locative gameplay and narrative elements. In addition, the exploration of the sociocultural implications of locative gaming could offer an insight into the way in which locative games have turned from artistic experiments in the 2000s into tools for profit-making in the 2010s, as Dale Leorke observes (146). Besides games, locative social media apps could be also explored as storytelling tools for the creation of user-generated narratives.

Ultimately, other scholars attempt to discuss their concerns with regard to the unexplored potential of locative media. For example, Larissa Hjorth et al.'s forthcoming publication, entitled *Locating the Mobile: Mundane Locative Media Practice in Households* (2020), examines "the diverse ways in which locative media are incorporated into the daily life

of households” (promotion information). However, what this dissertation has attempted to achieve is to lay the foundations for future explorations for the study of other authors, artists, and practitioners who experiment with locative media and narrative. What remains to be seen, for example, is how locative media might impact or have already impacted on genres other than fiction and non-fiction, such as poetry, drama, and even cinema. Personally, in a future project I would be particularly interested in exploring how locative media can inform as well as be informed by science fiction in their content and form, given the affinities that the texts examined in this dissertation display with this particular genre. This would offer me the opportunity to elaborate further on the theorization of locative media narratives in the context of science fiction writing through a more detailed exploration of science-fictional elements, such as post-apocalypse, spatiality, the posthuman, and alternate world scenarios.

Meanwhile, artist Duncan Speakman’s narrative experience *It Must Have Been Dark by Then* (2017) seems to be taking Brian Greenspan’s visions for an active and dynamic locative narrativity, explored in Chapter Two, a step further. Being “a combination of an audio walk and a physical book,” as Speakman describes, the work builds a complementary relationship between the printed page and the locative text. This narrative experience differs from the one offered by works such as *The Silent History*, in that the users must listen to the oral narratives on the mobile phone while being asked to read the printed book; in other words, the experience cannot be completed unless both types of media are used by the users. This is also an example of what Speakman calls “ambient literature,” an interdisciplinary project launched in the UK, which investigates the ways in which reading practices are altered by locative and ubicomp technologies. This is maybe one of the paths towards which locative media and narrative practice are moving nowadays, with the print and the locative medium engaging in an ongoing dialogue as well as into more diversified, converging, and interdisciplinary combinations. Probably this is where the interest in this doctoral project also

lies: in its ongoing exploration and renewed attention to the multiple shapes and forms narrative space and locative storytelling can take, which highlights its creative and re-generative potential.

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APPENDIX

Table 1 - The Scale of Experiential Value as is evident in the field reports of *The Silent History* as well as in *Times Beach* and *Fens*.

Level of Experiential Value	Locative Narratives – Reading Strategies		Audience’s Mode of Participation	
	<i>THE SILENT HISTORY</i>	<i>FENS & TIMES BEACH</i>	<i>THE SILENT HISTORY</i>	<i>FENS & TIMES BEACH</i>
LEVEL 0	No Zero-Level Locative Narratives in <i>TSH</i>	Explicit Remediation of Audio Book – Sedentary Mode of Listening to the Narrative	No Zero-Level Locative narratives in <i>TSH</i>	Listening to the Locative Narrative
LEVEL 1	Sense of Place Creation through the Use of Verbal Pointers	Sense of Place Creation through the Use of Verbal Pointers	Reading the Locative Narrative + Identifying Elements in Physical Space through Vision	Listening to the Locative Narrative + Identifying Elements in Physical Space through Vision
LEVEL 2	Sense of Place Creation through the Use of Verbal Pointers + Narrative Archaeology	Sense of Place Creation through the Use of Verbal Pointers + Narrative Archaeology	Reading the Locative Narrative + Identifying Elements in Physical Space through Vision + Juxtaposing the Virtual/Mental World-Image with the Physical World	Listening to the Locative Narrative + Identifying Elements in Physical Space through Vision + Juxtaposing the Virtual/Mental World-Image with the Physical World
LEVEL 3	Sense of Place Creation by Resorting to More Than One Senses and/or Movement	Sense of Place Creation by Resorting to More Than One Senses (Synesthesia) and/or Movement	Reading the Locative Narrative + Identifying Elements in Physical Space through Vision + Listening to the Soundscape of the Physical Space and/or Moving in Physical Space upon the Narrator’s Request	Listening to the Locative Narrative + Identifying Elements in Physical Space through Vision + Listening to the Soundscape of the Physical Space and/or Moving in Physical Space upon the Narrator’s Request
LEVEL 4	Sense of Place Creation through Jigsaw Puzzle Metaphor	Sense of Place Creation through the combination of Locative and Landscape Narratives	Reading the Locative Narrative + Looking for Elements in Physical Space	Listening to the Locative Narrative + Reading Landscape Narratives in Physical Space

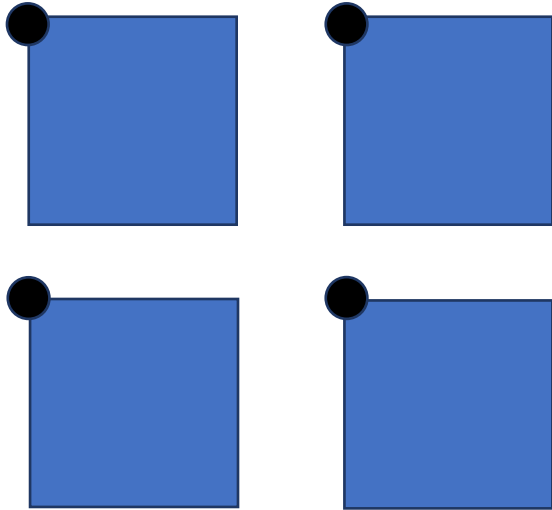
Table 2. The application of the sculptural locative hypertext model proposed by David E. Millard et al. to *Ingress*.

Model Element	<i>Ingress</i> Missions	Glyphs	Media	<i>Ingress</i> Missions, Glyphs, Media
Overall style	Plains or Canyons	Plains	Plains	Plains and Canyons
Objective	Discover unique points of interest in the area. Amplify meaning and impact of historical content.	Create an immersive experience. Discover the underlying narrative.	Create an immersive experience. Discover the underlying narrative.	Discover unique points of interest in the area. Amplify meaning and impact of historical content. Create an immersive experience. Discover the underlying narrative.
Chapters	Description of events in historical missions. No chapters. Single scene setting.	None	None	Description of events in historical missions. No chapters. Single scene setting.
Nodes	Each node is a description or story of the portal. Sometimes, narrative may not be contained. Textual descriptions.	Individual fragments (textual units)	Individual fragments (textual units) or video clips, or audio clips, images	Each node is a description or story of the portal. Sometimes, narrative may not be contained. Textual descriptions. Individual fragments (textual units) or video clips, or audio clips, images
Stacks	None	None	None	Sequences of textual descriptions or units, and/or video clips, audio clips or images
Pinned by	GPS location	GPS location	GPS location	GPS location
Contextual Elements	Queries about previous or current portal.	None	None	Queries about previous or current portal.
Reader	Textual units presented or ludic actions (hack, link, field, give passphrase)	Textual units presented	Textual units, digital documents, video clips, audio clips, images	Textual units, digital documents, video clips, audio clips, images or ludic actions (hack, link, field, give passphrase)
Transitions	Moving between physical locations and interact with interface at specific locations	Moving between physical locations and interact with interface at specific locations	Moving between physical locations	Moving between physical locations and interact with interface at specific locations

Fig. 1. The application of the sculptural locative hypertext model proposed by David E. Millard et al. to *Ingress* – Spatial configurations. The squares viewed below stand for the locative texts encountered during locative gameplay.

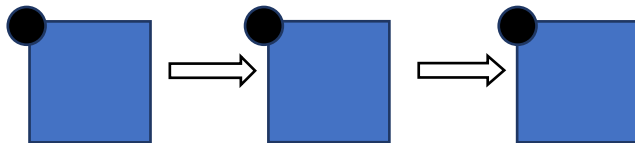
Ingress Missions

Plains (Any Order)

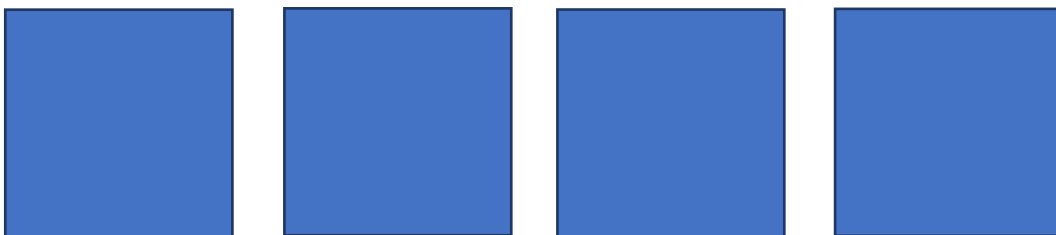


Ingress Missions

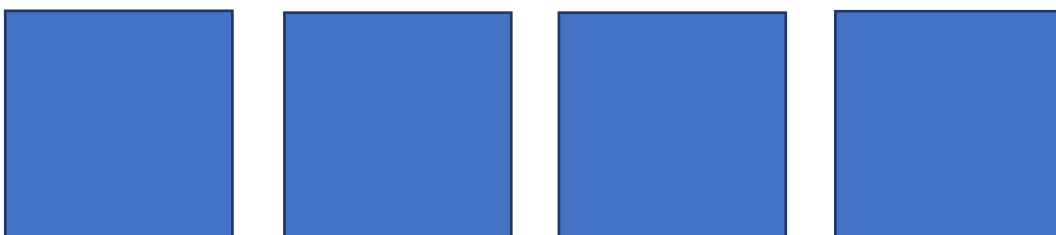
Canyons (Sequential)



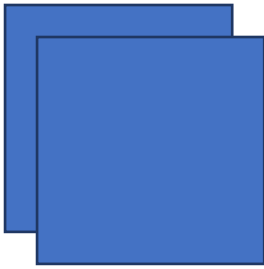
Glyphs (Plains)



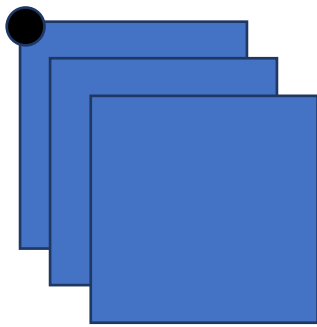
Media (Plains)



Stacks of Glyphs and Media (Plains)



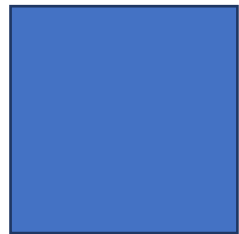
Stacks of Missions, Glyphs and Media (Stacks: “sequences of unpinned nodes”)



Pinned narrative



Node



BIOGRAPHICAL NOTE

Vasileios N. Delioglanis holds a Ph.D. in Locative Media and North American Literature and Culture from the Aristotle University of Thessaloniki. For his Ph.D. he was funded by the Board of Greek State Scholarships Foundation (I.K.Y). In 2018 he received a postgraduate travel grant by the European Association for American Studies (EAAS) to conduct research on locative media in the Department of Media Study, and the Center for Architecture and Situated Technologies (CAST) in the School of Architecture and Planning, at the University at Buffalo, State University of New York, U.S. He also holds an MA (2012) in American Literature and Culture, and a BA (2008) in English from the Aristotle University of Thessaloniki. He teaches English as a foreign language at the American Farm School of Thessaloniki. His research interests include locative media, location-based games, contemporary American fiction, Cyberpunk and Cyberculture, hypertext and multimedia fiction and the fusion of literary practice with new media technologies.

Delioglanis has presented findings of his research in international conferences in Lublin, Sofia, and Thessaloniki. His article “Re-Thinking Virtual and Physical Space through Mobile Technologies in William Gibson’s *The Peripheral*” appears in the journal *Arts & Cultural Studies Review*. He has also contributed a book review to the *European Journal of American Studies*. He is also a member of the *Multimodal Research and Reading Group* of the School of English, AUTH as well as a member of the Hellenic Association for American Studies (HELAAS) and the European Association for American Studies (EAAS).