

## PART I

# Narrative and Site-Specific Authorship

# 2

## THE INTERRELATIONSHIPS OF MOBILE STORYTELLING

### Merging the Physical and the Digital at a National Historic Site

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*How do the examples in this chapter help us understand the practice of storytelling in the mobile media age?*

This chapter focuses on the production of a mobile history platform used to explore Fort Vancouver, a historic site located on the banks of the Columbia River in the Portland-Vancouver metropolitan area. Fort Vancouver, once dubbed the “New York of the Pacific,” is a major archaeological resource, with more than two million artifacts in its collection. Most of those pieces, gathered from more than fifty years of excavations, are kept in warehouses, along with the boxes of documents, drawings, and other assorted historical records in storage that, because of severely limited access, obscure the fascinating and multicultural history of the place. It is a goal of the Fort Vancouver Mobile project to make these materials available through a direct experience with the site with the aid of mobile phones. By drawing from this example of a mobile storytelling platform, the chapter points toward ways that mobile stories utilize “intermediality,” a term with expansive edges that helps us understand that a wide range of media should work together to transform the ways we experience space.

#### Keywords

- **Intermediality:** Action that takes place between the media, like an adhesive binding together the swirling mix of ideas inherent in an environment that includes otherwise unconnected media, delivered through mobile devices as well as the physical sensations of the place.
- **Mobile media storytelling:** A mode of storytelling that blends digital media on mobile devices with physical environments.
- **Fort Vancouver National Historic Site:** A National Park Service attraction based in Vancouver, Washington, that served in the nineteenth century

as the early end of the Oregon Trail. It later became the hub of the Hudson's Bay Company's fur-trading empire and the first U.S. Army Post.

## Introduction

**Paul Kane** could sense a story that needed to be told. The self-taught painter, reared in Toronto around “hundreds of Indians,” realized in the mid-1800s that the “noble savages” he had befriended as a child had essentially vanished from his region. Inspired to document the indigenous groups before they were eradicated or assimilated in the rest of North America, Kane started exploring the Canadian frontiers and the ways in which he could tell this compelling tale. He used the mobile media of the period: paper and pencils as well as oil and watercolor paints. Those journeys eventually led him thousands of miles west into uncharted wilderness, where he drew sketches of chiefs, women, children, costumes, natural landscapes, and scenes depicting manners and customs of all sorts.<sup>1</sup> Kane then took those hundreds of drawings and detailed journals back with him to Toronto. He translated many of them into romanticized oil paintings. He hosted several popular exhibitions of the material. More than 150 years later, though, these irreplaceable interfaces into the past have become materially irrelevant: Kane's images and stories, extracted from their native homes, simply became disconnected from time and space. No longer tethered to a place, no longer new, the images and observations sank back into their containers, drifted deeper into the library shelves, were placed into storage, and then gradually faded from general concern and consciousness.

While that data has stagnated in a nether space, modern mobile devices—smartphones, tablet computers, portable technology of all sorts—have emerged with unprecedented power to reconnect worlds, recombine media, reconstruct images, recount observations, and reverse the alienation and separation epidemic of contemporary life. These devices also represent an opportunity to forage through our past, to find the stories, like Kane's, that matter and to give them relevance again. So swiftly is society shifting due to this technological innovation that wireless penetration in the United States surged from 34% to 93% during the past decade, with many American adults now carrying around information-rich mobile devices. Meanwhile, wireless data revenue grew over that same period from \$140 million to \$47 billion.<sup>2</sup> The epoch of pervasive media has begun, just as Kane in his time recognized the sudden ubiquity of European culture in wild northeast Canadian terrain. During Kane's life, Native Americans were almost annihilated; America fought in its deadliest conflict, the Civil War; colonialism, slavery, Manifest Destiny, and other monumental crises of humanity were experienced and debated in real time. While mobile stories need further examination in all forms—from fiction to nonfiction, from narrative to expositional, per the many examples in this book—the core of this chapter is inspired by George

Santayana's prescient yet still widely unheeded mantra, "Those who cannot remember the past are condemned to repeat it."<sup>3</sup>

Mobile devices undeniably are changing the ways in which we view the world. They are affecting our projections of tomorrow and our remembrances of yesterday. These new tools, in turn, are creating unprecedented opportunities for digital authors. When composing mobile stories, a creator can now know where his or her users are (location awareness), what is physically around those users (spatial awareness), and even what the users have been doing before the moment of connection, all while crunching data to predict what they likely will be doing afterward (contextual awareness). These devices can level out the hierarchy of composition between author and audience as much as desired, creating the potential for a high level of collaboration and direct feedback to the story space. They also allow for creative expression by the audience to be incorporated into the content. These devices can even create tangible displays of social connectedness. In essence, mobile storytelling fosters interrelationships between four distinct entities—between content and medium; people and space/time; people and information; and people and other people. Mobile devices open new portals for rediscovering the forgotten, yet illuminating, stories of our shared history, including stories like Kane's on the American frontier.

This perspective has galvanized a team of academics, historians, archaeologists, curators, new media practitioners, and mobile developers who want to further explore this fertile mediascape. The collective effort, dubbed the "**Fort Vancouver Mobile project**," focuses on research into the field of mobile storytelling at a principal historical hub in the Pacific Northwest, the **Fort Vancouver National Historic Site**, where Kane spent the winter of 1847 and today more than one million people visit each year. This essay, then, looks at one aspect of its theoretical underpinning: the interrelationships made possible by digital media storytelling.

Ideas expressed in this essay are born out of the experiences of developing digital content and a mobile app at the historic site. Fort Vancouver originally served as the early end of the Oregon Trail, and later as the regional headquarters of the British **Hudson's Bay Company's** empire, a hub of a 700,000-square-mile dynasty called the "Columbia Department," located on the north bank of the Columbia River. Later, the site served as the first U.S. Army post in the Northwest. The Fort Vancouver National Historic Site is now home to two million artifacts, most of which are kept in warehouses. These archaeological items, gathered from more than fifty years of excavations, only begin to tell the story of the place, once dubbed the "New York of the Pacific." Countless other boxes of documents, drawings, and assorted historical records add to the complexity of this multicultural mosaic. Because of its vast and diverse history, the site is representative of a long and thick narrative spine, one that materializes as more of a richly detailed realm, stuffed with intriguing characters and plots, rather than a straightforward

and narrow string of pearls. It is the kind of story that demands a medium capable of handling its many facets in a way that makes sense geographically, historically, and technologically. National Park Service staff members at the fort understand the potential that digital technology offers across those layers of experience and began, themselves, exploring options, such as on-demand podcasts and social media streams, as a way to augment traditional interpretation efforts like kiosks and printed materials. Yet the storytelling opportunities of a mobile app were thought to offer such a richer and deeper environment for site visitors that the Fort Vancouver Mobile team was formed to explore such melded space, mashing together the physical and the digital, while bringing together scholars and artists from Washington State University Vancouver, Texas Tech University, Portland State University, and the Center for Columbia River History, as well as regional experts in new media production, to conduct experiments in the field. All of us sensed something special emerging, but one of the first tasks was to try to pinpoint exactly what that was.

## The Affordances and Challenges of Mobile Media for Storytelling

The handheld mobile phone has been around commercially since the early 1980s, but its secondary use as a device for composing and distributing stories is relatively new. As a point of reference, the first cell-phone novel, *Deep Love*, was created in 2003 in Japan. Other forms of digital stories also have been emerging, with more recent examples drawing on the improved connectivity and robust features made possible by smart technologies. In 2006, Henry Jenkins recognized that modern storytelling, in turn, had become more about world building, as evolving authors began to create compelling digital environments “that cannot be fully explored or exhausted within a single work or even a single medium” because only a world can support the next developmental phase of storytelling in which multiple characters and multiple stories cross into multiple media.<sup>4</sup> The affordances for storytelling as “world building” means that Fort Vancouver can be told as a biography of its founder, **John McLoughlin**, or from the perspective of any number of the characters who inhabited the place and later became important nationally and internationally, including **Ulysses S. Grant**, **George C. Marshall**, and **O.O. Howard**. Or it can be told from the viewpoint of any of the hundreds of uncelebrated and undocumented workers, or from the perspective of women who kept the semblance of Western civility, replete with Spode china, in the rough and ready frontier. The Fort Vancouver story can be set at the time of the founding of the fort, when the location was part of the **Oregon Trail**, or during its heyday, when the fort ruled the region as the hub of the Hudson’s Bay Company’s fur-trading empire, or afterward, when the U.S. Army pushed the Canadians north and created the first American military outpost in the region. Or it could show the time before the Europeans arrived, or even the moment of

first contact, à la the settling of Jamestown. The same relatively small piece of land supported all of that narrative activity. Yet people generally come to Fort Vancouver today and want to learn “the” story. History, in this respect, is closer to art and literature than science. Verónica Tozzi refers to the phrase “impositionalist narrativism” as a way to describe the coexistence of multiple interpretations of the same event, dependent upon the storyteller’s perspective.<sup>5</sup> This idea presents a picture, of sorts, of the complex intertwining of the personalities and beliefs of the interface, or interpreter, with the individual and personalized interests of the user. The ultimate goal of mobile storytelling from this perspective is, then, as Mei Yii Lim and Ruth Aylett note, to provide ways for visitors to the site to navigate among this interconnected mass of information and gain access to free-choice learning.<sup>6</sup>

Historic sites inherently attempt to connect story and place, for without that tether, such sites have no clearly recognizable spatial or physical purpose, and therefore the community has no logical reason to devote space and resources to maintain them. In Western culture, at least, such a place provides a tangible link to the past, and the historical storytelling makes explicit what is implicitly embedded in the local landscape.<sup>7</sup> Such sites have incorporated various technologies to make such connections for as long as they have existed, and they continue to try to find new ways to make their stories relevant to new generations, including a wide range of techniques such as physical exhibitions, outdoor panels, and audio tours.<sup>8</sup> Despite such alluring affordances, mobile storytelling has been slow to attract architects of narrative realms. These essential producers, who place the portals and filter the noise, rarely are venturing into these types of interactive and immersive forms. With a few exceptions—such as **Evan Young’s** *The Carrier*,<sup>9</sup> the *Tracking Agama* team,<sup>10</sup> and the **Neighborhood Narratives** projects<sup>11</sup>—it seems odd that arguably one of the most potentially powerful storytelling devices for connecting story and place instead has been relegated to the relatively narrow transmissions of text messages or as a platform for puzzle games. Yet, as this book testifies, those in the digital humanities and media arts are beginning to realize the enormous potential of mobile devices as storytelling tools.

Technical issues right now make authoring in any mobile space a frustrating and time-consuming endeavor. These devices tend to have a highly restricted energy capacity, relatively low computing power, and relatively small amounts of memory and storage space, plus limited color and font support. The keyboards typically are small and hard to use, and limited bandwidth makes downloads typically slow, causing lag.<sup>12</sup> Theoretically, mobile devices eventually will adapt universal standards and gain intuitive features and functionality. These standardizations will increase and allow for presentations that are more complex.<sup>13</sup> Improved technology, higher-speed transfer rates, and more standardization eventually should solve many of the technical issues. Typical users of interactive technologies, though, tend to be less interested in the technologies themselves and more interested in the story or purpose of the interaction.<sup>14</sup> Blank pieces of paper—like

Kane had—might even seem preferable at times. His worst technical glitch was more than likely a broken lead on his pencil, and the toughest medial decision he had to make was between pencil and paint. But the field of mobile storytelling cannot afford to wait this one out. There are no indications that such technological problems will be solved any time soon, and some of the significant theoretical issues within the field already are within reach.

## Theoretical Underpinning: Intermediality and Its Interrelationships

When a broad society-changing technological advancement appears, as mobile “smart” phones have in the last few years, extremists typically are the first to measure in, offering polarizing and opposing dystopian or utopian views about how life as we know it is ending or how a new era is beginning. Many of us may remember that when digital writing (replete with hypertext linking) was introduced, Sven Birkerts lamented the end of wisdom and intellectual depth,<sup>15</sup> and Robert Coover predicted “the end of books.”<sup>16</sup> Few technologies actually live up to these bold assertions. It takes full mainstream adoption and many years of exposure to a technology, after a general calming and settling, before a true calibration finally can take place. Only then, can we more clearly see what has changed us in significant ways, and what hasn’t, as we emerge from the shroud of something different having taken place and having been adopted into society. This general understanding of knowledge stratification parallels and reflects the logic typically applied to the creation of academic theories and the herding of vast realms of decentralized—yet seemingly related—knowledge, such as “new media,” into an orderly model. In this model, virtually every step, or new layer of thought, comes directly from, or is an extension of, another. Among the many advancements that spring forth and the continual mashing and remashing of ideas, the intellectual lineage is much more difficult to separate and trace, with the effects also similarly swirling and slipping out of reach.<sup>17</sup>

After a decade of exposure to mobile phones, we still are not even sure what to call this phenomenon of storytelling with these devices. Mobile storytelling? Ambient storytelling? Geostories? Interreality? Mixed reality? Locative narrative? Ubiquitous media? Consistent terminology has become a concern within this field, a barrier keeping us all from talking about what we think we are talking about. Intermedial communication, as bland as that may sound, at least provides an extremely broad umbrella under which the fundamental discussions can begin, for it draws on the notion of, as Robin Nelson has written, “co-relations . . . that result in a redefinition of the media that are influencing each other, which in turn leads to a fresh perception.” It suggests a “both-and approach” to understanding information rather than an either-or perspective.<sup>18</sup> The prefix “inter,” Irina Rajewsky writes, denotes that intermedial action takes place between the media, like an adhesive that binds together the swirling mix of ideas. That helps to distinguish it

from kin theories such as intramedial (within a particular medium) and transmedia or transmedial (a motif, aesthetic, or discourse spread across different media).<sup>19</sup> “Intermedial” has become a term with expansive edges, including referring to the ways in which, as Nelson notes, media “work together in digital culture to challenge established modalities of experience. . . . In some instances, they collide and create a frisson. In other instances, one medium is imbricated within another so that they are almost dissolved into each other but the form of one remains just visible in the solution of the other.”<sup>20</sup> Intermediality embraces ideas of media convergence, or, as Klaus Bruhn Jensen describes, “the interconnectedness of modern media of communication. As means of expression and exchange, the different media depend on and refer to each other, both explicitly and implicitly; they interact as elements of particular communicative strategies; and they are constituents of a wider cultural environment.”<sup>21</sup> Intermediality also, in its most general sense, André Gaudreault and Philippe Marion argue, covers any process of cultural production.<sup>22</sup> Lars Ellestrom claims in the introduction to his *Media Borders: Multimodality and Intermediality* that “[i]f all media were fundamentally different, it would be hard to find any interrelations at all . . . [and] if they were fundamentally similar, it would be equally hard to find something that is not already interrelated. Media, however, are both different and similar, and intermediality must be understood as a bridge between medial differences that is founded on medial similarities.”<sup>23</sup> A story like that of Fort Vancouver, with its innumerable nooks and angles and mysteries, needs such a malleable theory at its base to match the technological flexibility of mobile devices in order to bring clarity and wholeness to the informational chaos. Thus for us, intermediality serves as a theoretical given underpinning our views of the four types of interrelationships of mobile storytelling.

### 1. *Interrelationship between Content and Medium*

The interrelationship that this unifying approach enables between content and medium is empowering. *Majestic*, credited by many as the first “alternate reality game,”<sup>24</sup> incorporated telephone calls, faxes, emails, instant messages, and web pages to deliver a government conspiracy tale, all of which today could have been handled by a single device.<sup>25</sup> Mobile devices have absorbed the specialties of just about every medium—newspapers, television, radio, books, movies, telephones, Walkie Talkies, watches, cameras, audio recorders, calendars, video games, pagers, address books, and desktop and notebook computers, among others. Fields of specialization have been obliterated, and McLuhan’s mantra of the “medium is the message” grows once again in ramifications.<sup>26</sup> Authors suddenly are in control of virtually all media at once, from video to sound files to words, shaping discourse through convergent technologies. In the context of composition, this sudden sense of freedom, potential, and optimism contrasts with the opposite emotions created by a lack of focus and operating outside a clear niche, creating yet another paradox of these devices. Sirkka Jarvenpaa and Karl Lang identify



others as well, including the empowerment/enslavement principle, in which mobile users today have access to content at all times, every moment of every day, all year long, wherever they might happen to be, creating unparalleled knowledge access.<sup>27</sup> That is, until the battery dies, leaving the user as helpless as Superman holding Kryptonite.

The modern user, though, also remains in control of a ubiquitous and personal access point, creating just one of the complications for authors. This situation reflects or extends the parallels problematic in the twenty-four-hour news cycle in which increments of information can gain unbalanced importance related to distribution goals rather than quality concerns. If the emphasis for the writer always is on “new” or “first,” then the more substantial and worthwhile core of the discourse can get lost in the rapid distribution churn. Meanwhile, as the information changes with the times, the content inherently changes, as if composed on shifting sand, deadening or enriching nuances, shaping and reshaping the work, which could lead to the endless polishing of every piece, or more likely, abandonment that causes irrelevance, like the fading importance of Kane’s sketches. Bringing it all together, through an intermedial paradigm, into oneness, accepting rather than separating the interrelationships, creates a new kind of focus for storytellers. But it also creates new problems. Creators of mobile stories not only will need to choose and balance medial forms along with such narrative cornerstones as character and plot, but the fluidity of digital information and the growing expectations of the relevance of such information delivered through mobile devices, breeds rapidly rising quality considerations as well as sustainability concerns.

## ***2. Interrelationship between People, Time, and Space***

Jarvenpaa and Lang reference Martin Heidegger, noting that technology destroys distance by destroying closeness, creating a condition in which everyone simultaneously is close and far, independent of geographical distance.<sup>28</sup> Yet physical location also is the primary tether we have left to physical experience, and geographical and organizational proximity tend to naturally increase information flow about a physical location as well as interest in it.<sup>29</sup> In other words, our thoughts may be elsewhere, but our bodies can never be. And we inherently care where our bodies are. So, instead of trying to force a separation that can never truly happen, an intermedial approach to mobile storytelling integrates tangible space with virtual environments. A participant’s foot is in both worlds (worlds, it should be noted, that are never completely separate). The user is cognizant of that sensation, and so is the storyteller, with great compositional precision. Location awareness of mobile devices, meanwhile, offers some of the most promising and solid distinctions of mobile composition in which content can be positioned at a particular site, an extremely specific place if desired, and that “mobile” information only can be released to people who go into that physical space and actually commune with the surroundings.

In the Fort Vancouver Mobile project, for example, the story of a Hawaiian pastor is featured in the first module. This man, William Kaulehelehe, is emblematic of the importance of “Sandwich Islanders” to the establishment and development of the fort, but he also illustrates larger themes comparing and contrasting British imperialism with American expansionism. Kaulehelehe gets caught in the middle between these two enormous forces, and the final piece of the mobile narrative shows a **video reenactment** of an incident in which American soldiers raid his home and burn it down as a way to rid the region of the British. However, this video is not being played in the sanitized and detached theater space of the visitors center or accessible from a comfortable home office; instead, this video is only available when digitally pushed to visitors via their mobile devices after they have experienced several segments of Kaulehelehe’s tale, and as they stand at the actual site of the incident, with the empty reconstructed Kaulehelehe home in the background. During beta testing of this narrative, visitors were highly engaged by such alignment of the digital environment with the physical environment, indicating the potential of such intermedial space, when a user feels magically anchored to both worlds. In *Electronic Literature: New Horizons for the Literary*, N. Katherine Hayles outlines the history of what she calls a “three-dimensions interactivity”—that is, the physical relationship between user and object in 3D space—noting Janet Cardiff’s locative story “**The Missing Voice (Case Study B)**” as a primary example of this mobile phenomenon.<sup>30</sup> Cardiff describes her piece as an “audio walk,” which begins with the user being physically connected to the content about to be shared through audio delivered in a precise spot matching the visual situation being described. In a similar fashion, users of the Paul Kane narrative module for the Fort Vancouver Mobile project are led through the storyline to actual places where Kane created his images. They then are shown the images on their mobile devices, such as a painting of Native Americans on the banks of the Columbia River near their camp. Users can align geographic landmarks in the picture and reality, such as **Mount Hood** and the **Columbia River**, and they also can witness how dramatically the scene has changed since Kane’s era, with a highway interchange, railroad tracks, and condos replacing the rural landscape. This experience of exploring spatially placed multimedia, even asynchronously with others, could be one of the ways that mobile technology can start to bring people physically back together in the same space. The question that appears on the phone interface—“Where are you?”—in this sense, helps a user come out of the clouds of technology and back into a situated context, a place, where other people are, or have been, instead of existing as a disembodied voice floating around within the wires of the network.<sup>31</sup>

With a dystopian bent, much of the early research on mobile devices initially focused on tendencies to disconnect users from surrounding spaces. Discussions, such as those by Janet Murray about nontrivial activities that interfere with immersion, prevailed until recently.<sup>32</sup> The general idea has been that deliberative movement and thought related to interacting with an interface would gain the

user's attention and, so, move it away from the story itself. This disconnection, this break from the state of immersion, has been seen as a negative aspect of born-digital stories. But what if immersion into the object is *not* the holy grail of storytelling and, instead, the goal is to unite the user with a particular space? Could we not find a new quality unique to storytelling that is not beholden to print sensibilities?

Adriana de Souza e Silva and Daniel Sutko contend that interactive mobile experiences actually reconnect users in new ways.<sup>33</sup> While printed books and landline telephones transport users away from physical surroundings, by immersing users in their own imagination or in the focused interchange of audio conversation, the geolocate feature of smart phones takes users into their physical surroundings. A printed book can take a reader to Mars, back in time to King Arthur's Camelot, or simply inside another human's perspective, but it can never know where he or she is making that mental leap from, or who the reader is (and who other readers encountering the same piece at the same time are), or what other books of this genre the reader has enjoyed or disliked, and then respond accordingly when the reader is finished by offering other likely-to-please titles to explore. This "demassification" of media,<sup>34</sup> without losing amplification attributes, such as enormous reach across innumerable barriers, radically changes the approaches that authors can consider when composing for such devices, connecting them to other users, information, and space in potent ways.

### 3. *Interrelationships among People*

Various studies of users at parks, science centers, and museums have shown not only that the competition for time and interest is great but that visitors also are under no obligation to pay attention. They typically do not even look at a majority of the exhibits, and when they do, they often spend far less time with them than designers project or even hope (see, for example, chapter 19 of this book, "Enhancing Museum Narratives: Tales of Things and UCL's Grant Museum"). In turn, many people are unwilling to devote sustained attention to media and messages that are not entertaining. Multimedia exhibits, such as audio tours, though, have shown to be more attractive to visitors and hold their attention longer.<sup>35</sup> Taking the multimedia allure a step further, using the site as a metaphorical game board merges the story space with the unpredictability of the site, including interactions with people inside and outside of the game, such as bystanders.<sup>36</sup> Random encounters with real people are what fuels gameplay in location-based situations, and discussion forums that connect players outside of the game, allowing them to share game experiences, help to build a community of players.<sup>37</sup> The success of connecting players to one another, as seen in **Blast Theory's Uncle Roy All Around You**—where street players using geolocate technologies interact with online

players—is a case in point (this topic is discussed in detail by Rowan Wilken in the “Mobile Games” section of this book).<sup>38</sup> On the dystopian side, Mary Flanagan warns that this physical–virtual blend can become a new form of “entertainment colonization” as well, in which unaware bystanders are unwillingly commoditized by the players.<sup>39</sup>

Location also can work as an initiator that can evolve into much richer communication transcending the original place.<sup>40</sup> But it is not a factor that authors traditionally have considered. From the intermedial paradigm, stories can be open to interlopers and unpredictable tangents. In another example, Jeremy Hight describes a city spot as “a collection of data and subtext to be read in the context of ethnography, history, semiotics, architectural patterns and forms, physical form and rhythm, juxtaposition, city planning, land usage shifts and other ways of interpretation and analysis.”<sup>41</sup> His coauthored ground-breaking mobile narrative, *34 North, 118 West*, which chronicles the stories surrounding a particular GPS coordinate, demonstrated that “context and subtext can be formulated as much in what is present and in juxtaposition as in what one learns was there and remains in faint traces.”<sup>42</sup> He characterized such storytelling efforts as “narrative archeology.”<sup>43</sup> Another mobile narrative pioneer, Michael Epstein, offers a different perspective, envisioning mobile media as a way to bring audiences closer to issues and locales through a narrative overlay on maps that also can be consulted for geographic orientation and other data. He pictures these “terratives,” as stories delivered through mobile devices “in tandem with real places and people.”<sup>44</sup> Maybe the clearest perspective from here is the broadest view, one that expands even media ecology. Mobile devices can provide the full spectrum between physical and virtual environments, and they can flip the passive nature of experiencing most media around into an active proposition. Intermediality works between media, but it also absorbs its surroundings by making connections. Without the nails and glue, a house is nothing more than a big pile of sticks.

#### **4. Interrelationship between People and Information**

Interactivity, flexibility, and cohesiveness are the new cornerstones of such collaborative multimedia composition efforts, according to David Fono and Scott Counts.<sup>45</sup> From this perspective, interactivity means giving users multiple opportunities to engage with the shared media artifacts in a variety of ways, as opposed to the traditional model of transmission and consumption. Flexibility is an organizational mantra, in that structures of organization may be encouraged but also disregarded by users. Cohesiveness is the key connection to the traditional paradigm of authorship, in that users should be able to build a cohesive product out of the shared objects, enabled to make a variety of connections and associations. While the behaviors in isolation might not be significantly different than those entrenched in media traditions—such as taking a photograph with a

mobile device and publishing it, akin to using a single lens reflex camera and a mass media distribution channel—the complexity involved in those behaviors increases with the choices now afforded.<sup>46</sup> As part of such complex interactions, mobile devices begin to take on traits more like shared objects than individualized terminals, another sign of this process fostering communal coagulation.<sup>47</sup>

Moreover, mobile communication technologies clearly alter our experiences with physical space, particularly in the creation of hybrid realms that incorporate physical, digital, and represented spaces. In these mobile “games,” players physically move around the space. They collaborate with other users. They expand the game environment outside of the traditional game space, by merging different physical and virtual spaces, and perhaps the most distinguishing feature, these activities take place simultaneously in at least two different types of spaces. These spaces do not directly overlap, instead being superimposed and connected through social actions.<sup>48</sup> As part of this new blend of place—between the Internet’s connectivity, stacks of digital information, and the users—related services typically either embed information in space or foster social mobile networks and interpersonal communication related to proximity and geographical orientation. Meanwhile, in almost every situation, storytelling predominates as a means of sharing experiences and knowledge.

Narrative structure functions as a basic cognitive means of organizing human experience and making sense of it, and that form, compared to exposition or other informational structures, is thought to be easier to read, summarize, and remember.<sup>49</sup> Interactive narratives respond to deeper fissures and generate negotiations of authorship, authenticity, veracity, and the authority to tell stories. Mobile narratives, with their emphasis on real experiences and direct engagement with new articulations of relationships between space, time, and postmodern patterns, provide a salient example of a modern art form that is negotiating, patterning, and understanding our changing nature.<sup>50</sup> Reflective of such social fluidity and bonding, composing for mobile devices may then be considered distinctive in its wide flexibility in which different pieces of information can be accessed and delivered in a variety of ways. This medial evolution increases potential effectiveness by removing the physical or technological barriers of the past, when packages of information typically had to be, for pragmatic reasons, delivered only in one specific medium. Transmedia authoring, as described by Jenkins, may be the ultimate postmodern mobile ideal in which the full narrative can only be ascertained by accessing the distinct parts of this larger discourse puzzle; yet, all of the parts also function individually and completely and satisfy users within the designed medium chunk.<sup>51</sup> With the Fort Vancouver Mobile project, users can listen to an audio clip, watch a video, read digital text, or see images of any number of the site’s artifacts—all separate media objects delivered through the same device. Or, users can look at paper brochures, examine tangible objects in the space, or navigate the reconstructed physical surroundings, each of which contributes a complete chunk of the Fort Vancouver story but not the whole story.

The receivers of this array of media generally are absorbing the information outside of classrooms or designated interaction spaces, as in the concept of a situated and lifelong learning environment, conducting tasks that Mike Sharples classifies as “contextual lifelong learning.”<sup>52</sup> In that concept, learning does not happen at predetermined times in pre-specified places. It happens whenever a person breaks from routine, reflects on the current situation, and resolves to address a problem, share an idea, or gain an understanding. These environments are dynamically constructed by mobile users in a site-specific way, interacting with their surroundings. The natural alliance of learning as a contextual activity with mobile devices creates a powerful new tool.<sup>53</sup> That combination, in fact, might be the key to understanding how to effectively author for mobile technology.

Authors using mobile devices can have a renewed and expanded sense of audience-awareness, like those in the age of orality, when speakers knew everyone in the crowd. Oral storytellers knew what the audience wanted to hear and intimately understood the context of the communication, including its physical place, its time of day, its season, what came before it, and the pattern being set for what might come after. Only with mobile devices, this sort of precise delivery can be automatically sorted and intricately redesigned as a way to simultaneously tailor messages to the desires of each individual in the crowd, even complete strangers. Mobile devices in this process, then, can collect data from their users that assist authors in continually making better connections to the audience, in real time, and this data allows virtually unlimited on-the-spot calibration, instantaneously, like a built-in usability lab. Unlike most of the technology they can supplant, mobile devices can create a distinctively personalized experience with information, from ringtones and identity-reflecting phone gear to content delivery, ranging across entertainment and services spectrums, individually designed on a mass scale yet with which a single person can interact.<sup>54</sup> This is a long way from pencils and paper, or even the printing press.

## Conclusion

Many aspects of mobile media storytelling—delivered through smartphones, computer tablets, and other mobile technologies—feel familiar and like natural extensions of the media that have come before them. The physical act of writing text for a mobile device, for example, is the same as typing for any other digital media. Shooting a video, recording audio, layering animation frames, all of these creative routines have become familiar forms of expression. Just as **Lewis and Clark**, in essence, merely extended a walk in the woods, modern authors composing in mobile space begin by treading over comfortable compositional ground. The deeper the trip into this mobile media wilderness right now, the more fascinating and bewildering it becomes, and the more surprising fruits and pitfalls it yields.

Mobile media, in turn, are becoming the dominant technologies of human expression, the natural interface through which humans function, yet also a unique instrument of mediating communication between people and the world

of inanimate objects.<sup>55</sup> Mobile technology, viewed as this chameleon-like interface, circuitously returns to McLuhan's "medium is the message" mantra,<sup>56</sup> only instead of choosing between media options today, such as a magazine article or radio broadcast, mobile technology adds media choice as a layer of composition, as critical as deciding a protagonist and a plot. Audience awareness with mobile technology goes well beyond typical demographics of age, gender, and social class. Composing with a mobile device means being able to know precisely when and where your message will be delivered, and in what context. This interaction is also not a one-way transmission, of sender and receiver; for mobile technology to truly express itself as a distinct form, a circuit of information (a "feedback loop") should be created among participants. As such circuits cross and interconnect, mobile stories will begin to spread and grow like wildflowers. While the author (or authors) only control a portion of that circuit, he or she does help to put parameters on it, and guide it, ideally keeping it from becoming meaninglessly unfocused, or drifting so far from original intent that the audience loses interest.

The New World, the Wild West, even the most outer reaches of space have been crisscrossed and mapped by our tales. Authors can no longer reach farther away for their frontiers, but, as an apt metaphor, mobile narratives are establishing and developing new territory. The story of Fort Vancouver already is being expressed in wayside signs, brochures, books, videos, podcasts, webpages, social media feeds, online photo galleries, and even through generic mobile applications that track user location and provide social updates and aggregated data, such as the nearest restaurants. Rather than being completely commodified in the digital age, information still can maintain distinct value based on the quality of the interpreter and the interpretation. Paul Kane documented the changing world as he saw it with a sketchpad. He traveled mostly alone, "scarcely meeting a white man or hearing the sound of my own language," for four years.<sup>57</sup> While mobile development is rampant worldwide, composing mobile narratives remains a relatively lonely pursuit, rife with terminological and technological mine fields. Near Fort Vancouver, **Kane noted** that the "Indians" lived near the river, in "a little village—quite a Babel of languages, as the inhabitants are a mixture of English, French, Iroquois, Sandwich Islanders, Crees and Chinooks."<sup>58</sup> That statement inspired the creators of the Fort Vancouver Mobile stories to find a local speaker of **Chinuk wawa**, the common language of the village, to give sound to Kane's images of the place. This small step brings the user that much closer to what Kane actually experienced as he was filtering the scene for posterity through his sketches. As the user walks different directions around the site, other characters emerge. Different plotlines converge and diverge. The linear entryway opens into abstraction, in which each user move reveals additional layers of history and other stories. It starts to seem like a hidden world emerging. It starts to feel like new connections are being made and old and broken connections are being mended.

## Notes

1. Paul Kane, *Wanderings of an Artist among the Indians of North America: From Canada to Vancouver's Island and Oregon and through the Hudson's Bay Company's Territory* (Toronto: University of Toronto Press, 2006), vii–x.
2. CTIA Media, “Wireless Quick Facts,” [http://www.ctia.org/media/industry\\_info/index.cfm/AID/10323](http://www.ctia.org/media/industry_info/index.cfm/AID/10323).
3. George Santayana, *The Life of Reason* (Charleston, SC: BiblioLife, 2009), 217.
4. Henry Jenkins, *Convergence Culture: Where Old and New Media Collide* (New York: New York University Press, 2006), 114.
5. Verónica Tozzi, “Past Reality and Multiple Interpretations in Historical Investigation,” *Study of Social Political Thought* 2 (2000): 41.
6. Mei Yii Lim and Ruth Aylett, “Narrative Construction in a Mobile Tour Guide,” *Lecture Notes in Computer Science* 4871 (2007): 51.
7. Maoz Azaryahu and Kenneth E. Foote, “Historical Space as Narrative Medium: On the Configuration of Spatial Narratives of Time at Historical Sites,” *GeoJournal* 73, no. 3 (2008): 179.
8. Richard Prentice, Sinbad Guerin, and Stuart McGugan, “Visitor Learning at a Heritage Attraction: A Case Study of Discovery as a Media Product,” *Tourism Management* 19, no. 1 (1998): 5.
9. Evan Young, *The Carrier*, <http://www.carriercomicbook.com>.
10. Scott Ruston, Jennifer Stein, et al., *Tracking Agama*, <http://cinema.usc.edu/interactive/research/trackingagama.cfm>.
11. Hana Iverson, *Neighborhood Narratives*, <http://www.neighborhoodnarratives.net/>.
12. Michael Kenteris, Damianos Gavalas, and Daphne Economou, “An Innovative Mobile Electronic Tourist Guide Application,” *Personal and Ubiquitous Computing* 13, no. 2 (2009): 103–118.
13. Erich Bruns, Benjamin Brombach, et al., “Enabling Mobile Phones to Support Large-Scale Museum Guidance,” *IEEE Multimedia* 14, no. 2 (2007): 16.
14. Loel Kim, “Tracing Visual Narratives: User-Testing Methodology for Developing a Multimedia Museum Show,” *Technical Communication* 52, no. 2 (2005): 121–137.
15. Sven Birkerts, *The Gutenberg Elegies: The Fate of Reading in an Electronic Age* (New York, NY: Fawcett Columbine, 1994), 74.
16. Robert Coover, “The End of Books,” *The New York Times on the Web* (1992), <http://www.nytimes.com/books/98/09/27/specials/coover-end.html>.
17. Craig Baehr and Bob Schaller, *Writing for the Internet: A Guide to Real Communication in Virtual Space* (Santa Barbara, CA: Greenwood Press, 2009), 17.
18. Robin Nelson, “Introduction: Prospective Mapping and Network of Terms,” in *Mapping Intermediality in Performance*, ed. Sarah Bay-Cheng et al. (Amsterdam, NL: Amsterdam University Press, 2010), 13–23.
19. Irina Rajewsky, 2005. “Intermediality, Intertextuality, and Remediation: A Literary Perspective on Intermediality,” *Intermedialités* 6, (2005): 43–64.
20. Nelson, “Introduction,” 13–23.
21. Klaus Bruhn Jensen, “Intermediality,” in *International Encyclopedia of Communication*, ed. Wolfgang Donsbach, <http://www.communicationencyclopedia.com>.
22. André Gaudreault and Philippe Marion, “The Cinema as a Model for the Genealogy of Media,” *Convergence: The International Journal of Research into New Media Technologies* 8, no. 4 (2002): 12.



23. Lars Elleström, *Media Borders, Multimodality and Intermediality* (New York, NY: Palgrave Macmillan, 2010), 12.
24. *Majestic*, Electronic Arts (2001), [http://www.pcworld.com/article/48191/majestic\\_you\\_dont\\_just\\_play\\_this\\_game\\_you\\_live\\_it.html](http://www.pcworld.com/article/48191/majestic_you_dont_just_play_this_game_you_live_it.html).
25. Janelle Brown, "Paranoia for Fun and Profit," *Salon* (2001), <http://www.salon.com/technology/feature/2001/08/10/majestic/index.html>.
26. Marshall McLuhan and Quentin Fiore, *The Medium Is the Message* (New York, NY: Touchstone Books, 1967), 26.
27. Sirkka Järvenpää and Karl Lang, "Managing the Paradoxes of Mobile Technology," *Information Systems Management* 22, no. 4 (2005): 7–23.
28. *Ibid.*, 7.
29. Andre Torre and Alain Rallet, "Proximity and Localization," *Regional Studies* 39, no. 1 (2005).
30. N. Katherine Hayles, *Electronic Literature: New Horizons for the Literary* (Notre Dame, IN: University of Notre Dame Press, 2008), 11.
31. Sadie Plant, "On the Mobile: The Effects of Mobile Telephones on Social and Individual Life," (2001), <http://classes.dma.ucla.edu/Winter03/104/docs/splant.pdf>.
32. Janet Murray, *Hamlet on the Holodeck: The Future of Narrative in Cyberspace* (New York, NY: Free Press, 1997), 97–125.
33. Adriana de Souza e Silva and Daniel Sutko, "Playing Life and Living Play: How Hybrid Reality Games Reframe Space, Play, and the Ordinary," *Critical Studies in Media Communication* 25, no. 5 (2008): 447–465.
34. Baehr and Schaller, 15–17.
35. Levi Novey and Troy Hall, "The Effect of Audio Tours on Learning and Social Interaction: An Evaluation at Carlsbad Caverns National Park," *Science Education* 91, no. 2 (2007): 260–277.
36. de Souza e Silva and Sutko, "Playing Life and Living Play," 458.
37. Adriana de Souza e Silva, "Alien Revolt (2005–2007): A Case Study of the First Location-Based Mobile Game in Brazil," *Technology and Society Magazine, IEEE* 27, no. 1 (2008): 18–28.
38. Blast Theory, *Uncle Roy All Around You*, (2003), [http://blasttheory.co.uk/bt/work\\_uncleroy.html](http://blasttheory.co.uk/bt/work_uncleroy.html).
39. Mary Flanagan, "Locating Play and Politics: Real World Games & Activism," *Leonardo Electronic Almanac* (2007): 6–7.
40. Giulio Jacucci, Antii Oulasvirta, and Antii Salovaara, "Active Construction of Experience through Mobile Media: A Field Study with Implications for Recording and Sharing," *Personal & Ubiquitous Computing* 11, no. 4 (2007): 215–234.
41. Jeremy Hight, "Narrative Archeology," *Media in Transition 4: The Work of Stories* (Cambridge, MA: May 6–8, 2005), <http://web.mit.edu/comm-forum/mit4/papers/hight.pdf>.
42. Jeff Knowlton, Naomi Spellman, et al., *34 North, 118 West* (2002), <http://34n118w.net>.
43. Hight, *Narrative Archeology*.
44. Michael Epstein, "Moving Story," *Media in Transition 6: Stone and Papyrus*, (Cambridge, MA: April 24–26, 2009), <http://web.mit.edu/comm-forum/mit6/papers/Epstein.pdf>, 1.
45. David Fono and Scott Counts, "Sandboxes: Supporting Social Play through Collaborative Multimedia Composition on Mobile Phones," Conference on Computer Supported Cooperative Work (Alberta, Canada, November 4–8, 2006).
46. *Ibid.*

47. Antti Salovaara, Giulio Jacucci, et al. "Collective Creation and Sense-Making of Mobile Media," SIGCHI Conference on Human Factors in Computing Systems (Montréal, Canada, April 22–27, 2006).
48. de Souza e Silva and Sutko, "Playing Life and Living Play," 449.
49. Kim, "Tracing Visual Narratives," 121–137.
50. Jennifer Stein, Scott Ruston, et al., "Location-Based Mobile Storytelling," *International Journal of Technology and Human Interaction* 5, no. 1 (2009): 41–50.
51. Jenkins, *Convergence Culture*, 20–21.
52. Mike Sharples, "The Design of Personal Mobile Technologies for Lifelong Learning," *Computers & Education* 34, no. 3–4 (2000): 177–193.
53. Mike Sharples et al., "The Design and Implementation of a Mobile Learning Resource," *Personal and Ubiquitous Computing* 6, no. 3 (2002): 234.
54. Harvey May and Greg Hearn, "The Mobile Phone as Media," *International Journal of Cultural Studies* 8, no. 2 (2005): 195.
55. Kristóf Nyíri, "Towards a Philosophy of M-Learning," Proceedings from the IEEE International Workshop on Wireless and Mobile Technologies in Education (Vaxjo, Sweden, August 29–30, 2002).
56. McLuhan, 26.
57. Kane, ix.
58. Ibid., 171