

Chapter 5. Digital Story-Mapping

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Land Acknowledgment: We acknowledge that the state of Israel is built on the lands that have been home to the Palestinian people for centuries. As a settler-colonial-nation state, Israel has been displacing Palestinian people with military force and violence and has been actively trying to erase the presence of Palestinian history, culture, language, and bodies from the land by demonizing the Palestinian identity.

In the absence of a formal land acknowledgment by Clemson University, we acknowledge that Clemson University, a Land-Grant Public Institution, is located on what was formerly Cherokee Land and that the Cherokee were forcibly displaced. We also acknowledge that enslaved, and imprisoned labor helped to enrich the families who lived at the Fort Hill Plantation, and which ultimately enabled the university's founding.

This chapter works towards a methodology of digital story-mapping (DSM). We see DSM as both a method and means for discovery and invention of meaning and knowledge, one that relies on the importance of the embodied experiences of space and place, and the mapping of that experience. This methodology recognizes the digitality of story-mapping, and its inherent multimodality, as foundational concepts. Our methodology is framed by what we consider to be the key components of DSM: space and place, embodied storytelling, and multimodal writing. These key components are derived from our reflections on individual cases of practicing DSM, using ArcGIS StoryMaps® software, both in research and teaching. Through these reflections, we can determine that DSM is a method of discovery and of writing that, overall, provides a methodology which benefits from rhetoric's spatiality and materiality.

We introduce our methodology of DSM drawing from concepts of space and place, mapping, and storytelling in rhetoric and writing studies to the computers and writing community. We suggest that the method is useful for teachers and scholars who are interested in exploring spatially oriented and culturally responsive ways to be attentive to the discursive-material relations between bodies, spaces and places, objects and memory, and the technologies used that support investigation and interpretation. We find that, when using DSM as a method, possibilities emerge for map makers and storytellers to change their awareness of the spatial landscape and its multiplicity of meaning by revealing and sharing

uncharted counter-stories, and stories that are too often silenced. In essence, hegemonic, and colonial systems prevent these stories from being revealed, through their use of cartographic and scientific legitimacy of mapmaking as a moral and ethical basis. We promote the idea that digital story makers should bear the ethical responsibility for inverting this morality and ethical bases of colonial logic, and DSM helps to achieve that.

We first unpack each key component of DSM which is followed by our individual research-teaching stories of DSM. First, Eda will discuss her project, “Mapping Cartographic Discourse: Reading the Israel-Palestine Conflict Across In/Visible Borders of the Middle East,” in which she uses digital story-mapping to uncover the colonial logic that dominates the cartographic narrative of the *Israel in Pictorial Maps* atlas, how that narrative continues to practice power and inflict violence over the current space of occupied Palestine, and finally, the ways in which the embodied stories of Palestinian people have been writing counter-stories in and across the bordered spaces of Palestinian resistance. Then, Diane will review her use of DSM in an Advanced Writing course, to demonstrate how DSM is both a practice and a product that has the potential to reveal influences and messaging of objects of historical memory and legacy on a university campus. Using examples of student projects created with ArcGIS Survey123, and StoryMaps, Diane shares student examples of story maps that interrogate and analyze the presence and influence of a narrative of legacy. Those story maps perform resistance to hegemonic representation of whiteness—one that elides the reality of the campus’ history as a plantation, and its relationship with ardent segregationists.

Our aim is to provide a methodological frame for DSM that emphasizes accessibility and a wide array of applicability which can inform researchers and teachers about the innovative and creative ways of using different digital writing technologies as part of the practice of DSM.

A Digital Story-Mapping Methodology

While the term “digital story-mapping” echoes current terms like digital storytelling, digital maps, and mapped stories in digital-spatial humanities, we approach DSM as more than a generic Geographic Information System (GIS) and a web-based story-mapping technology. GIS industry leaders like Esri or Google have capitalized on these terms as they launched their web-based mapping applications (Esri’s ArcGIS StoryMaps and Google’s Tour Builder) for telling digital stories *with* maps. GIS is a powerful software that provides users with tools and opportunities to “discover relationships that make a complex world more immediately understandable by visually detecting spatial patterns that remain hidden in texts and tables” (Bodenhamer, Corrigan, and Harris vii). However, the way that Esri/ArcGIS marketed their StoryMaps applications appears to capitalize on “enhancing digital storytelling with the power of maps,” which in turn, “tend[s] to relate to simple, linear storytelling via web maps with ancillary content, such

as text and images” (Field 99). As a result, for many, StoryMaps applications seem to appear as “just an alternative way of telling a story through the use of maps” (Field 100). Approaching DSM to tell digital stories with maps as ancillary visual information, situates space as a static, empty void to be filled, as if space is always-already waiting to be discovered, which truly centralizes and reproduces the colonial logic of Western onto-epistemology. Our methodology does not view space as static, but as one of possibility made manifest through embodied experiences, and one that has relation to the body experiencing it—be that viewing a map, or mapping as an action across space—and that is the focal point of understanding the difference between storytelling with maps, and DSM.

While DSM takes advantage of Esri /ArcGIS StoryMaps’ powerful digital and spatial affordances—e.g., spatial juxtaposition, clustering, layering of maps and spatial data, using pictures and text—as a digital research and writing methodology, DSM treats and engages space and place, and maps and mapping not as secondary elements of and to storytelling. Thus, we again introduce DSM as a three-part methodology: 1) space and place, 2) embodied storytelling, and 2) multimodal writing. We consider space and place both as our main departure and the key that links the storytelling qualities and the digital and multimodal affordances of DSM, and introduce the following key premises that shape DSM as a digital, multimodal, and spatially situated digital research and writing methodology:

1. *Space is a product of social and cultural relations of the human practice of place. It is a social, political, and ideological construct and used in the transaction of power.* Henri Lefebvre contends that all space is based in human construction, and subject to social, political and ideological forces. Space is a social set of relations (116) between persons, their actions, interactions, and their environment. “Everything that is produced either by nature or by society” including “living beings, things, objects, works, signs and symbols” (101) is part of that socially constructed space.
2. *Space is fluid, open, dynamic, and always emergent... it produces and is produced by the stories we tell.* As Doreen Massey explicates, space is a product of interrelations that represent a sphere of coexisting possibilities, multiplicities, and heterogeneity, which is why space “is always in the process of being made” that could be imagined “as a simultaneity of stories-so-far” (9).
3. *Space, place, and storytelling are connected through lived, embodied experiences.* Malea Powell elucidates this connection for us: “By ‘space’ I mean a place that has been practiced into being through the acts of storied making, where the past is brought into conscious conversation with the present and where—through those practices of making—a future can be imagined. Spaces, then, are made recursively through specific, material practices rooted in specific land bases, through the cultural practices linked to that place, and through the accompanying theoretical practices

that arise from that place—like imagining community ‘away’ from but related to that space” (388).

Building on these three premises, our DSM methodology defines the act of mapping as an inherently digital, multimodal form of writing that shares stories of, and about, space and place; and it engages with maps as digital and multimodal text representing and communicating spatial stories.

At its simplest, multimodal writing is any mode of communication that avails itself of multiple modalities: “visual, audio, gestural, spatial, or linguistic means of creating meaning” (Selfe 195). What informs our understanding of the value of multimodality aligns with the cross-disciplinary perception of how human beings perceive and engage with the world that surrounds us through “our multiple senses, our emotions, our actions, and our reflections” (Boyd 155). According to Gunther Kress, our wide range of engagement with the world is what “from the beginning, guarantees the multimodality of our semiotics world” (181), which echoes the New London Group’s perception of “all meaning making [as] Multimodal” (29). Jason Palmeri considers these approaches to multimodality “as a fundamental aspect of embodied human communication [that] opens up space for digital writing scholars to explore how our approaches to contemporary digital writing might be informed by the much longer history of multimodal composing practices” (28). Megan Fulwiler and Kim Middleton write that, with new media technologies, the epistemological shift from page to screen has “opened up new ways of reading, writing, representing, and understanding that will, by necessity, be grounded in the ontological actions of the new media era” (40). It is this importance of multimodality that we embrace as an inherent component of DSM.

Our understanding of DSM stems from its inherent digitality that is not limited to computerized environments. Ways of knowing, afforded by multiple modalities that limit the term “digital” to computer applications and programs in turn limit what is meant by digital. Angela Haas writes that “‘digital’ refers to our fingers, our digits, one of the primary ways (along with our ears and eyes) through which we make sense of the world and with which we write into the world. All writing is digital—*digitalis* in Latin—which typically denotes ‘of relating to the fingers or toes’ or ‘a coding of information’” (Haas “Wampum as Hypertext” 84; emphasis in original). Adding digital elements to multimodality adds a layer of complexity which enhances any modality’s “inter-animation” of components and yields a whole text that means more than its constituent elements (Blakesley 112). It is that digitality, afforded by mapping, that is used when we connect the embodied actions in space as the material for DSM as a method. Additionally, we employ Ellen Cushman’s conceptualization of digital story that is grounded in “social practices of storytelling as epistemological activities” (116) and that centralizes “the notion of story as epistemological center of knowledge making” (128). We understand that ways of expressions opened by computerized

technologies are enhanced and “interanimated” when embodiment is included as the way of knowing and responding via multimodal writing.

Finally, we recognize that mapping is an intentional method which “extends beyond the map maker or even the map itself” and that “while the map maker’s choices provide constraints and affordances to users, [the choices] do not control the user’s reading [of the map] . . . understanding mapping as an intentional method means appreciating how the map maker, the map, and the user influence one another” (Unger and Sánchez 103). So, through the purposeful use of embodied subjectivity of mapping encounters, experience with digital affordances, and storytelling, DSM offers possibilities for uncovering counter-stories, as well as the silenced experiences of under-represented groups.

DSM Projects

While we both used ESRI’s ArcGIS StoryMaps applications in our DSM projects, we do not advocate specifically for these applications; we merely use the apps as representative examples of DSM as a practice. Even though there are differences between our projects, our approach to digitality and multimodality is inherent in the ways we used that digitality.

Eda’s Project

My digital story map project “Mapping Cartographic Discourse: Reading the Israel-Palestine Conflict Across In/Visible Borders of the Middle East,” analyzes how various pictorial and iconographic representations in the 1957 Israeli National Atlas, *Israel in Pictorial Maps* (Stern), produced borders that constructed the memory-place of the Israeli-Palestinian conflict around victim and enemy images. I practiced Brian Harley’s cartographic deconstruction to unpack how the colonial logic and memory of this atlas’s cartographic story represents the material and violent consequences of the decades long Israeli occupation over the social, cultural, and everyday reality of occupied Palestine today. In my rhetorical examination of this atlas, I deconstructed the cartographic narrative of each map to uncover the settler-colonial logic that continues to displace, erase, and silence the Palestinian people today. The settler-colonial logic that informs the cartographic discourse of this atlas is central to the contemporary national narrative of the state of Israel which dehumanizes and demonizes the Palestinian people as the enemies while positioning the Israeli nation as the victim. I challenge and disrupt this narrative and its settler-colonial logic with the Palestinian activist Ahed Tamimi’s story. Ahed’s story represents the border-culture of the Palestinian resistance which produced a new heroine image that disrupted the enemy and victim images of the Israeli-Palestinian conflict.

I used the conceptual framework of the map journal application, one of the Esri /ArcGIS StoryMaps’ applications, to produce this project as a digital story

map. Map journal provided me with the digital and multimodal affordances to represent dynamic movements, and how this atlas's overall cartographic story of enemy and victim images extends itself into the physical geography of the spaces of occupation and resistance, which offers a way into unpacking the Israeli-Palestinian conflict.

I practice DSM methodology as an embodied mapping performance that focuses on the relations between spaces, borders, body/bodies, and materiality. What accounts for the digitality of DSM in my practice is heavily influenced by Angela Haas's articulation of digitality as introduced previously in this chapter and her explication of how digital rhetoric is perceived by "digital cultural rhetoricians... [as] a negotiation—an interfacing—between bodies, identities, rhetoric, and technology" ("Toward a Digital Cultural Rhetorics" 412). Drawing from the considerations in digital-cultural rhetorics that emphasize materiality, bodies, and embodiment (Eyman; Gonzales; Haas "Wampum as Hypertext"), Ann Shivers-McNair introduces her framing of 3D rhetorics, which "focuses on fabricated objects . . . [and] necessarily includes the digital—both in the sense of fingers-as-digits and in the sense of the code and interfaces that connect humans to fabrication machines" (np). While I do not consider DSM methodology as 3D rhetorics in the way that Shivers-McNair explicates it, what inspires me is how her framing accounts for digitality as an extension of the body and embodied experiences. This is how I see the connection between DSM and digital rhetoric in my practice. The DSM project I focus on in this chapter is a product of my embodied mapping performance, which is a practice of rhetorical cartography and border rhetorics. I explain my articulation of DSM as an embodied mapping performance to demonstrate my practice of DSM through specific examples from my DSM project.

DSM as an Embodied Mapping Performance

What informs my practice of rhetorical cartography is Amy Proppen's "visual-material rhetorical approach, one that not only accounts for the multimodal, spatially-situated artifact but is also mindful of its impact on the embodied subject" (36). Following Proppen, I engage with maps as visual-material artifacts and pay attention to the consequences a map's story has over communities who share the experience of the colonial wound. In this context, I examine cartography's colonial logic, which, as Karen Piper delineates, is invested in establishing whiteness, producing spatial realities orientated around a world order that unfolds from the West to the rest of the world, while erasing, silencing, and covering over the lived experiences of non-Western, non-white, and Indigenous bodies. This reading engages Walter Mignolo's decolonial theory of epistemic disobedience to problematize and lay bare cartography's colonial past-present and logic. Therefore, my focus is on what a map's story strategically covers over and how this strategic covering over is accomplished by using bordering practices to produce space as an extension of the colonizing body.

DSM is more than simply reading and analyzing the stories that maps tell; it is a mapping performance. I articulate this mapping performance in relation to

the recent turn in cartographic theory from a representational to a processual understanding of maps and mapping. This processual turn recognizes a map's subjective-ideologically loaded story as a product of its maker's positionality, which is informed by a map-maker's socio-cultural context. In addition, this turn advocates for recognizing the "multiple, reiterative production and reproduction of maps as they are engaged in multiple times and spaces" (Harris and Hazen 51). This processual shift understands maps and their stories not merely as rhetorical and intertextual (Harley), but also always emergent and fluid in meaning. This emergence and fluidity are relational to different contexts of map engagements, interactions, and makings performed by mapmakers and map-users (Kitchin, Gleeson, and Dodge). Thus, I consider my own engagement with the *Israel in Pictorial Maps* atlas and its cartographic narrative as an embodied mapping performance, which is an extension of and relational to my own experiences as a Turkish-Muslim woman living in the US.

While there are no short cuts to demonstrating what it means to live in the US as a Turkish-Muslim woman, the many encounters that I had with different people on various occasions for the last ten years showed me that people always already have preconceived perceptions about Turkey and how a Muslim woman should look/act like. Once, after telling an Uber driver that I am from Turkey and Muslim (both responses to his questions), he told me not to worry because, as I quote, "You do not look like the rest of them so you will fit just right in." What's so disturbing about this sentence is not necessarily about me, a non-Hijabi Muslim woman not looking like the "other" Muslim women who freely choose to wear their Hijabs, but it is the immediate xenophobic, Islamophobic, and racialized representation of how Hijabi Muslim women are perceived as subjects who do not and cannot fit into the so-called modern-civilized Western society.

What I experienced with this Uber driver is just one example, and a simple one, that speaks to the material-violent effects of borders as devices of and bordering as "a mobile technology of colonial [and imperial] control" of spatial knowledge production (Lechuga 38). Thus, I understand and practice border rhetorics through Queer Chicana feminist Gloria Anzaldúa's theorizing of borders and borderland spaces as embodied. Anzaldúa explains a borderland space as "*una herida abierta* where the Third World grates against the first and bleeds . . . the lifeblood of two worlds merging to form a third country, a border culture" (*Borderlands* 25; emphasis in original). As Gabriela Raquel Ríos articulates, "Anzaldúa means this [*una herida abierta*] quite literally. The borderlands as physical spaces bleed . . . Borderland culture emerges out of particular embodied relationships to particular histories of particular land bases" (82). Through Anzaldúa's theorizing of borders and borderland spaces as embodied, I perform mapping to tell embodied border-stories of resistance that disrupt the stories enforced on the land and the people by the colonizing body.

I came to understand my engagement with the larger cartographic narrative of *Israel in Pictorial Maps* atlas as an embodied mapping performance; that en-

gagement led me to Ahd Tamimi's story. In December 2017, young Palestinian activist Ahd Tamimi slapped one of the heavily armed Israeli soldiers who were right outside of her family home. After Ahd's mother posted a video of the incident online, Ahd was arrested, put on trial by the Israeli government, sentenced to eight months in prison, and released in July 2018. Ahd gained global recognition and support, while the Israeli government did everything to portray her as an evil terrorist out there to ruin Israel.

For me, the most striking thing was when the Israeli government questioned Ahd's 'Palestinian-ness' as a way to attack her credibility, and, in turn, to prevent her from gaining international support for the Palestinian resistance to the Israeli occupation. The Israeli government directed attention to Ahd's blonde hair, blue eyes, and light skin and raised the question *how could she possibly be Palestinian?* The Israeli government even made the argument that Ahd's parents were probably not her real parents since, again, she looked nothing like them. As a non-hijabi Muslim woman, I am almost never considered as Muslim-enough by non-Muslim Westerners and many Muslims (not all though) with diverse backgrounds living in the West or back home, in Turkey. In other words, my 'Muslim-ness' is almost always in question because, apparently, I do not look Muslim without a hijab on. This was probably the reason I was so drawn to Ahd and her story. As a result, Ahd's story became central to my mapping performance since it represented a border culture that emerged out of the Palestinian resistance and the decades long struggle of the Palestinian people living under oppression of the Israeli settler-colonial state.

DSM In Practice

Through my embodied mapping performance, I engaged with the larger cartographic narrative of *Israel in Pictorial Maps* atlas with a focus on cartography's colonial logic. This cartographic narrative tells the story of Israeli people returning to their so-called promised historic homeland. The great return home narrative is a strong part of the current Israeli national identity as well, which was built on the assumption that their historic homeland was empty, waiting for Israeli people to return and claim it (Özyeşilpınar). The reality of Palestinian people's presence in the land was a deviation from this storyline and if the land was going to be made the national homeland of the Israeli people, then "Palestine had been characterized as '*A land with no people for a people with no land*'" (James 404). To re-invent this land as an empty space waiting to be reclaimed, each map-story in the atlas was narrated by taking advantage of cartography's colonial logic.

What I consider to be the most strategic colonial practice in each map is the salient demarcation of the border that clearly marks and signifies the land of the Israeli nation-state while removing and pushing the Palestinian people out to the other, empty, grey side of the border. For example, the pictorial map of Tel Aviv from the atlas offers a clear demonstration of the border line through coloring and usage of signs that direct the attention of the map-users to 'Israel,' which

effectively designates ‘Palestine’ as the other, empty side of the border (see Figure 5.1). I read the storyline of each pictorial map through this strategic bordering, while paying close attention to the ways in which the bordering practice continues to inflict violence over Palestinian bodies.

My goal was to capture and illustrate how the colonial logic of this atlas’s cartographic narrative marks the early stages of the decades long and still ongoing Israeli occupation of Palestine, as well as the violent consequences of the settler-colonial logic over the social, cultural, and everyday life and reality of the Palestinian people. I used the interface of the map journal application for this project. The structure of the map journal application offers its users two lay-out options: 1) Side Panel and 2) Floating Panel (see Figure 5.2). I chose the side panel layout for my project because this layout is specifically designed for text-intensive stories. Further, this layout gave me the opportunity to form a spatial juxtaposition that presented maps in Israel in Pictorial Maps atlas and their map-stories in geolocational connection to the contemporary cartographic visualizations of the land. The side panel layout has a side panel and a main stage (see Figure 5.3). Side panel is designed to present text and other visuals and multimedia, and the main stage is mainly for featuring maps, charts, and other visuals and multimedia.



Figure 5.1. Pictorial Map of Tel Aviv in Israel in Pictorial Maps Atlas. Used by permission of the David Rumsey Map Collection, David Rumsey Map Center, Stanford Libraries



Figure 5.2. Screenshot of Esri StoryMaps Map Journal Application Layout Options

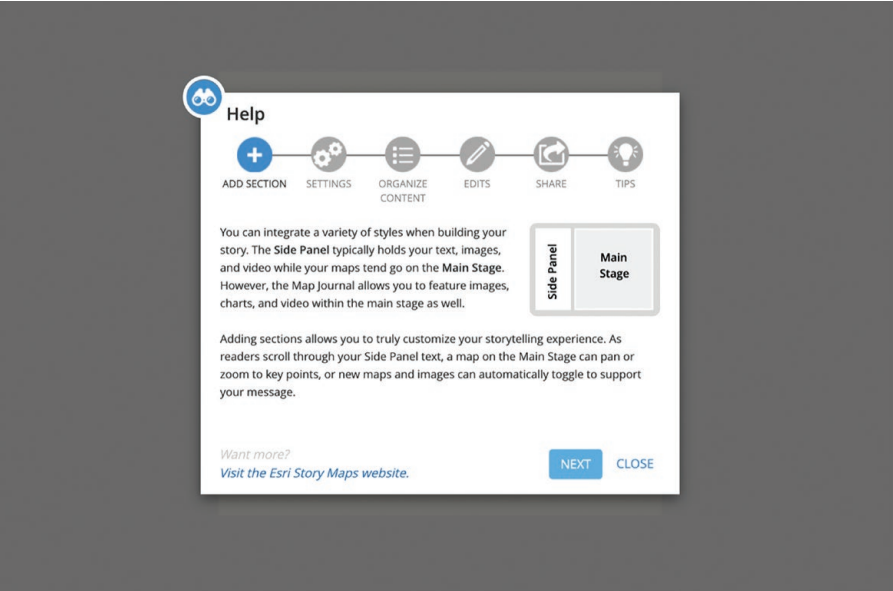


Figure 5.3. Screenshot of Esri StoryMaps Map Journal

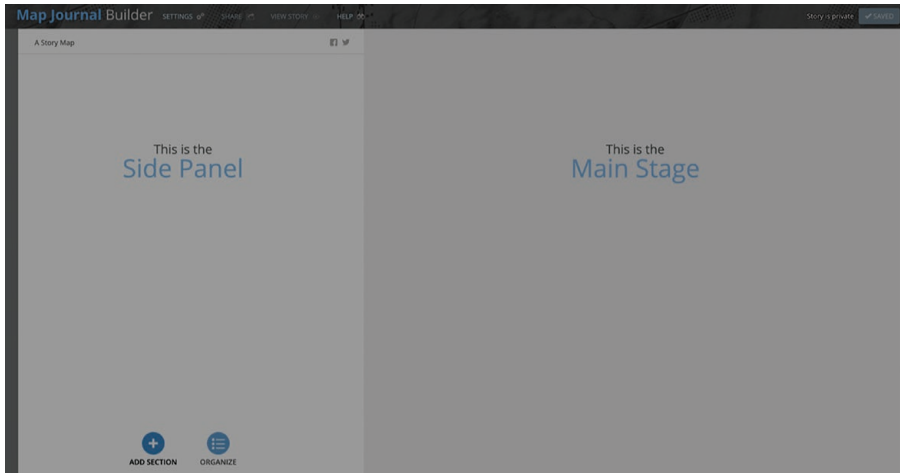


Figure 5.4. Screenshot of Esri StoryMaps Map Journal Application's empty interface of the side panel layout

Application Side Panel-Main Stage Descriptions

The empty interface of the map journal's side panel layout offers possibilities for users to make creative decisions and customize the map journal for their own purposes and audience (see Figure 5.4). While customizing the side panel layout of the map journal application, I made a conscious decision to deconstruct the colonial logic of this atlas's cartographic narrative. However, using this application could easily open re-colonizing opportunities if I were not cognizant of the atlas's colonial logic. In the context of my project, one such instance would be using the main stage to present each map of the atlas, while using the side panel to provide textual descriptions. This organization would result in centralizing the colonial logic of this atlas. Even if the textual descriptions in the side panel were to address the colonial logic that informs the cartographic narrative of the atlas, centralizing the maps and their stories through the main stage would privilege the colonial logic.

I produced my map journal around the satellite map images of the cities represented in the *Israel in Pictorial Maps* atlas. This allowed me to use the maps in the atlas to demonstrate the cartographic past of the Israeli occupation and then show how this cartographic past continues to operate as the ongoing settler-colonial logic of the Israeli nation-state today. This past-present connection offered me a visual-spatial perception to show how maps in the atlas extend their narrative scene onto the physical space of the land, while covering over and pushing the Palestinian experiences and stories out onto the other side of the constantly shifting and expanding borders of the state of Israel (see Figure 5.5).

Mapping Cartographic Discourse: Reading the Israel-Palestine Conflict Across In/Visible Borders of the Middle East



Title Page: Israel in Pictorial Maps



Figure 5.5. Screenshot of the introductory panel to the “Mapping Cartographic Discourse” map journal story map

Natanya



Map: Natanya

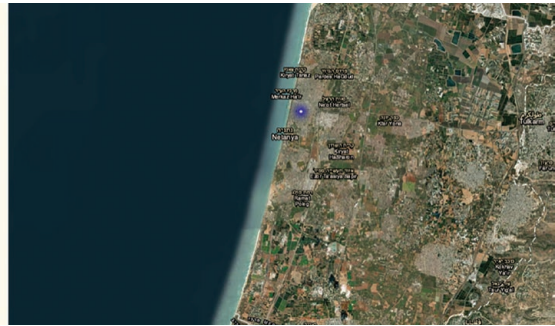


Figure 5.6. Screenshot of the “Mapping Cartographic Discourse” map journal story map design

The rest of the map journal (see Figure 5.6) is designed to maintain this past-present connection. The side panel includes the pictorial maps from the atlas (left) and the main stage is where the satellite map images are presented (right). I created sections in the side panel and assigned each section to a pictorial map from the atlas. Since each map offers a visualization of different cities, these sections are paired with the satellite maps of the cities that each pictorial map visualizes. This side-by-side juxtaposition was a way for me to visualize the spatial extension from the pictorial maps to the physical space of the Israel-Palestine conflict, demonstrating how the colonial logic of the Israeli government’s cartographic narrative replaces the spaces of resistance and occupation with the victim and enemy images, while silencing and covering over the counter-stories of resistance.

The satellite map image on the right moves from one city to the another as the reader scrolls through one section to the next. This dynamic movement contributes to the past-present connection and the visual representation of the pictorial

maps writing on the physical space while alluding to a sense of change, openness, and interconnectedness (Massey 107). Through the design layout and features of the map journal application, I enacted this sense of movement perhaps not in a direct manner of breaking away from the limits of cartographic visualization of space, but more so in an indirect way that created the opportunity to start interrupting the immobility and stillness of this atlas's cartographic space. This interruption was critical because understanding space as an open happening means that there are ongoing stories being experienced and written on spaces (Massey 107) and the flat surface of a map does not tell these stories.

I used the side panel to introduce Ahed's counter-story, which I divided into parts and paired each part with the map sections in the side panel (see Figures 5.7 and 5.8). By adding this third layer into the map-section, I carved a space for Ahed's story to be told through the story map's dynamic movement and past-present connection. In this way, I was able to connect Ahed's counter-story and her image as a heroine to the spaces of resistance and occupation. This layer produced a dynamic spatial storytelling that disrupts the dominant colonial narrative of the atlas through the victim and enemy images.

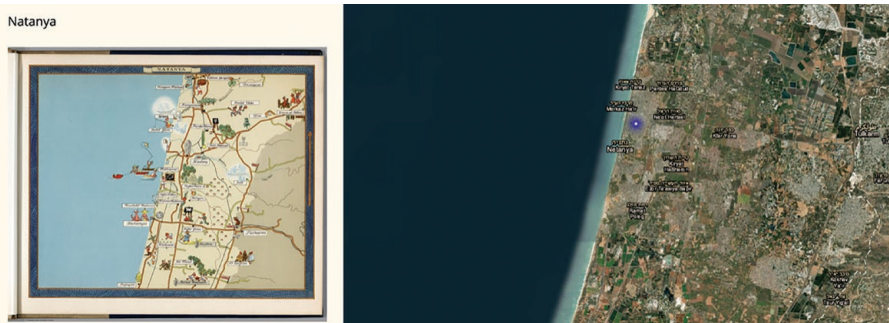


Figure 5.7. Screenshot of Ahed's Story Side Panel Introduction in "Mapping Cartographic Discourse" map journal story map

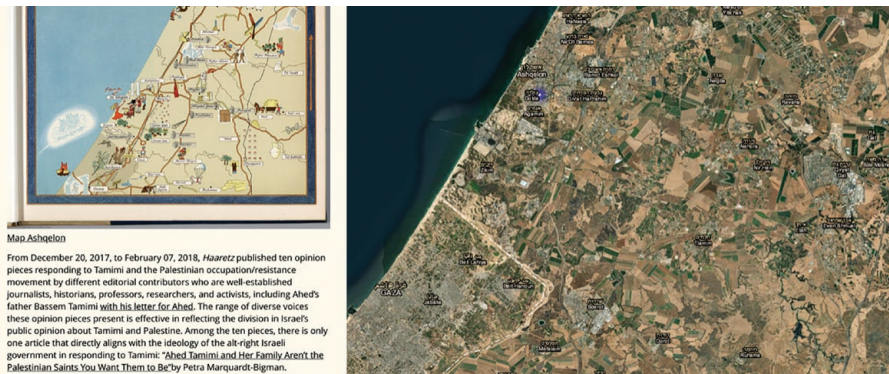


Figure 5.8. Screenshot of Ahed's Story Side Panel

Diane's Project

“Reading and Writing Memory” was an advanced writing course that employed Digital Story-Mapping as a method of inquiry and interpretation. By reading representations of memory on the Clemson University campus, students learned about the descriptive operation of maps (Corner), students found that the 3D area maps of the campus they viewed were not neutral. The location for Diane's project using DSM was the main campus of Clemson University, a public Land-Grant institution. Built on Cherokee land, home to the Fort Hill house of slave-owner and segregationist John C. Calhoun, the land for Clemson University was deeded to a board of trustees for the construction of a “high seminary of learning” by Calhoun's son in law, Thomas Green Clemson. Home to buildings named after ardent segregationists Benjamin Tillman, and most notably, Strom Thurmond, the campus has a tense, ethnocentric history that only recently is beginning to be addressed by the university.

My positionality informed the approach to the course. I'm a non-traditional aged graduate student instructor whose cultural experiences of living in New England before moving to South Carolina to pursue a Ph.D. informed how I saw memory texts operating on the campus. Because my research on kairotic emplacement and memory texts formed the course content, I sought to introduce the concept of opportunity (to read what is emplaced) as a readable event. What I wanted was a method and affordances that students could easily use to defamiliarize themselves with the every-day experience of being on campus: Did they realize that the university was built on the backs of enslaved persons, and later by prison labor? What would either mean to their embodied experiences, and their own positionality as students from different ethnicities and backgrounds?

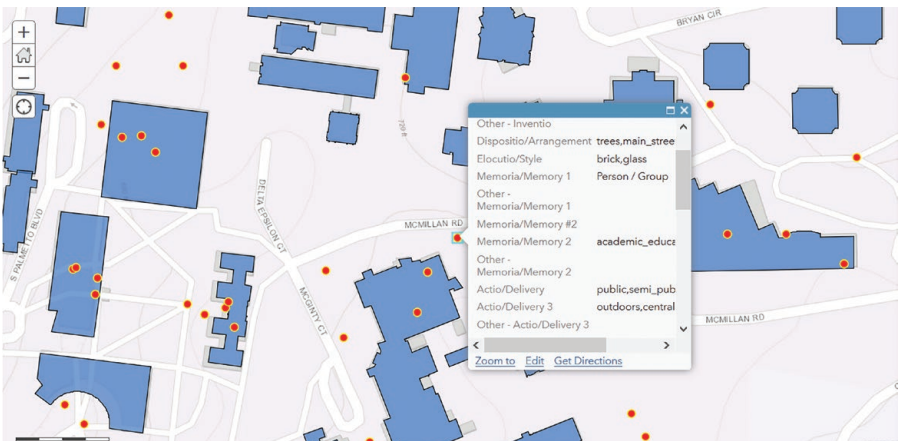


Figure 5.9 Example of Survey 123 responses as part of DSM . Image used with Permission.

I wanted students to use what Jaqueline Jones Royster calls “critical imagination” as part of their rhetorically “grounded process of discovery, analysis, and interpretation” (83) and to “clarify the contexts and considerations of [their] interpretations” as means to exercise their “commitment making connections and seeing possibility” (83). Other than what they accepted as the truth of who and what memory texts presented, I wanted them to make connections and imagine that those connections and conclusions had value in being articulated, to uncover what memory was being presented and perpetuated on campus. We sought to challenge the silence of historically oppressed persons, as well as the repression of those persons’ stories, while also understanding that a dominant memory was always at work in ways they might not have considered.

The Course: Preparatory Work

The purpose of the course was to have students understand that architectural memory spaces and places (like historical homes) and architectural memory texts (like monuments, memorials, and their associated signage and placards) work to influence opinions and thoughts. The first part of the semester was spent understanding how space is created socially, materially, architecturally, and institutionally. We unraveled the conflated terms “memory,” “history,” “tradition,” “heritage,” and “nostalgia,” as we worked to understand what was being presented and re-produced in “historic homes”—homes that were former houses of plantation owners who used enslaved labor. From there, we were able to address what I thought was the most obvious “historic building on campus:” Fort Hill, the original home to John C. Calhoun Home, and later home to the founder of the university.

Despite the prominence of the home (multiple signs directing visitors to it, signs that proclaimed Calhoun as a man of national importance, its visibility from no less than four dormitories, one of the campus’ bus routes, and directly across the street from the campus’ main dining hall) I was surprised to learn that several of my students in each of the 19 person sections did not realize that Fort Hill was a plantation manor; nor did these students know that Fort Hill’s original owner Calhoun was an ardent racist, or that the university’s founder deeded the building and its surrounding lands to a board of trustees with the intention that the building remain part of the campus. The campus has a racist history, and a racist present if one considers buildings named after noted white supremacists Tillman and Thurmond. The university still struggles with its ability to tell the whole story of its past, despite the 2014-2017 efforts of student A.D. Carson’s academic work on revealing the university’s past, his “See The Stripes” organization, or his protest that sought to change the name of Tillman Hall back to its original name, Old Main. After Carson’s (now Dr. Carson) graduation from the university, the university engaged a Clemson professor, Dr. Rhonda Thomas, in creating a history of Clemson’s vexing legacy—the re-

sult of which was a work in progress when I taught the “Reading and Writing Memory” course.

The aim of the course is to let students know that monuments, memorials, signs, building names, and street signs are legible texts of memory, or “memory texts” (Young xiii-ix). As texts, they are readable, understandable, communicative objects that require a different kind of reading approach beyond simple perception and description. To that end, a dual heuristic method with user-created maps as tools of invention was used. Using participatory mapping, each student used the ArcGIS Survey123 program loaded to their smartphones. A survey presented questions about the rhetorical, architectural, and spatial attributes of memory texts according to a modified version of the rhetorical canon (the survey is extensive and can be viewed at <http://bit.ly/Survey123Form>). As students traversed the campus looking for memory texts, they completed their surveys on their smartphones. The geographic locations and images of the memory texts were also input into the Survey123 questionnaire that automatically populated an unlabeled map of campus, based on their on-the-ground, embodied encounters with memory texts. The initially unpopulated map eventually contained pop-up information for each student’s Survey123 responses to memory texts that students would later use to analyze the location, and characteristics (rhetorical, spatial, and physical) to understand how the memory texts conveyed meaning about who and what is remembered on campus.

The decisions students made to include and describe a geo-located memory object in the ArcGIS Survey123 program, reveal what the map maker decides. Because an entire class is responding to these objects by completing a questionnaire about spatial, rhetorical, and memorial significance, students have to look more intently at objects of memory that their peers have described and look more intently at what has not been identified as a memorial text. This in turn opens more possibilities for what can be considered a memory text. Further, the decision they make to include or exclude these objects as part of their understanding of spatial relations (similarity, grouping, juxtaposition, manner of approach) when they view a populated map, gives the map maker choices that illuminate some discoveries, while minimizing others. This was the story they read, mapped, and shared.

Digital Mapping as Practice

The use of DSM enabled students to compose and tell a story of their embodied experience reading emplaced memory texts across space, calling into operation Deborah Hawhee’s understanding of Wayne C. Booth’s definition of rhetoric as the opportunity to engage and respond to “the entire range of resources that human beings share for producing effects on one another” (Hawhee 158; Booth xi). Envisioning students as the authors of their own individual embodied experiences, the method recognizes that that mapping is another resource that can be used to create and respond to those effects.

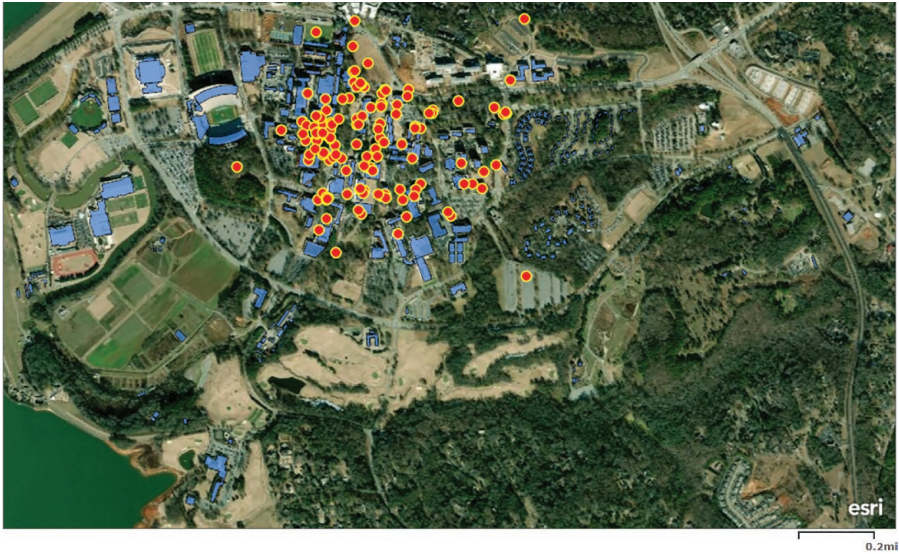


Figure 5.10. An example of a map being populated by students, based on their individual Survey123 field results.



Figure 5.11. The map with student's memory texts located. Students could expand and zoom in on the map, allowing them a more defined view of the memory texts in each area. Image used with permission.

The digitality of map making is tied to the embodied experience of mapping objects of memory in the field—on the university campus—and then using digital mapping to analyze and interpret what is conveyed as a preferred memory, versus their experience of reading those memory objects. The digitality of populating and explaining the map made for a richer descriptive expression. The experience of digitally responding to survey questions was done spatially, and temporally; the students sought, read, and responded to objects of memory while encountering

them. Their digitality was both embodied as reading, and as writing by way of their responses that were their StoryMaps. Using digital tools to populate a collaborative map that was shared by each class was a way for them to apply their reading of memory objects in a way that could be shared and accessed by their class peers.

From DSM as Practice to DSM as Product

As the small groups discussed the story the populated map was telling, students made decisions to include or exclude memory texts that they viewed on the collaborative map, as part of their understanding of spatial relations (similarity, grouping, juxtaposition, manner of approach). They were able to make connections between how the memory texts are arranged on campus. Student groups as mapmakers would invariably choose some memory texts as more important than others, based on their experience and positionality as college students. The interpretation of what students saw both on the ground and on the map was theirs to make, and theirs to voice in a digital story map. What matters was not the story map, per se, but which memory texts students chose to highlight as part of their reading of memory on campus. By including signage like banners and historical markers as memory texts, one group of students found a cluster of activity about Clemson's historical past and legacy that marginalized the enslaved persons who made the Fort Hill property possible. Another group chose to focus on building names as memory texts, avoiding typical monuments and placards to reveal their experience of being Black students on a campus with two buildings named after notable racists, set on a north-south axis. Figures 5.12 and 5.14 represent examples of the memory they read, mapped, and the story they shared. The resultant small group story maps demonstrated the students' newly acquired way of applying Royster's "creative imagination," interpreting what, in most cases, was the public display of a memory that the institution perpetuated, and what their understanding of that meant to them as students.

In the case in Figure 5.12, a group of students, using the concept of axial progression and organization, determined that the memory texts worked together and across space to project a memory of whiteness, in what they called, the "Axis of whiteness." Buildings named after white supremacists were located at the north and south vertical axis. The campus library in Figure 5.13 was interpreted to be a larger, more prominent and modernized version of a plantation home, located at the intersection of the east to west axis. In their digital story map, they were able to support their interpretation that the university was reminding students of its whiteness. When sharing their digital story maps with their course peers, the Black students who came up with the interpretation were just as surprised as their course peers in discovering the tacit racist message being perpetuated as memory. Their digital story map recounted, location by location, what was being presented on the "Axis of whiteness." The digital story map is lengthy and students who collaborated did so by inserting links at the bottom of each section of the story map to move from section to section. The digital story map, used with permission, is at <https://bit.ly/33Lamw9>.

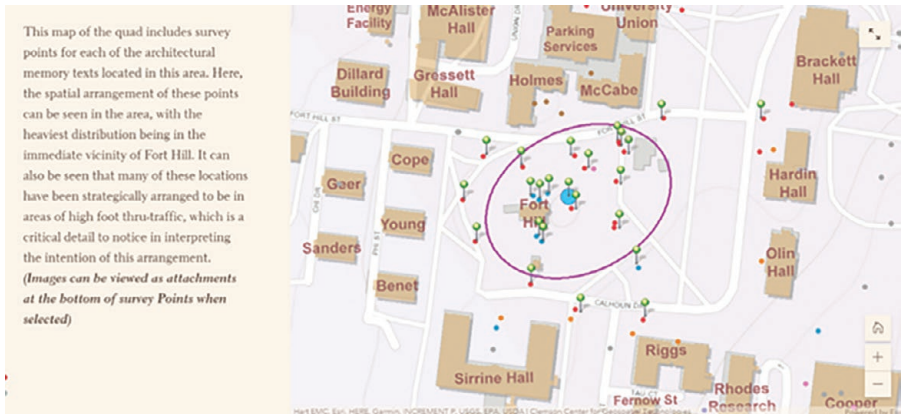


Figure 5.12. One group's interpretation of campus memory texts were buildings themselves, and their placement on what they called "the Axis of whiteness."



Figure 5.13 The university's main library with white columns, and deep porch reminded some students of a modernized version of a plantation house. Cooper Library. Clemson University Libraries. 2020. https://libraries.clemson.edu/clemson_libraries_zoom_16/

Another group found that the cluster of signs on the campus' small, but well-traversed quad (adjacent to Fort Hill) contained an over-abundance of historical signs and banners touting the historical significance of Fort Hill, its owner, and family. Most of the large banners had images of John C. Calhoun, his wife Anna Calhoun, and the university's founder. Only two banners contained an image of the formerly enslaved persons who worked at Fort Hill: one a groomsman, the other, a nanny. The interpretation by the student group was that, based on the clustering of memory texts, it appeared that the university was perpetuating

a memory of the white owners of Fort Hill as a legacy that could be shared with members of the university community, as seen in Figure 5.14. Based on that interpretation, they concluded that the university was using historical figures to represent a partially true memory in public places, and one that conflated memory, history, heritage, and nostalgia about pre-Civil War southern life. Their digital story map, used with permission, can be found at <https://bit.ly/3kAoFJQ>.

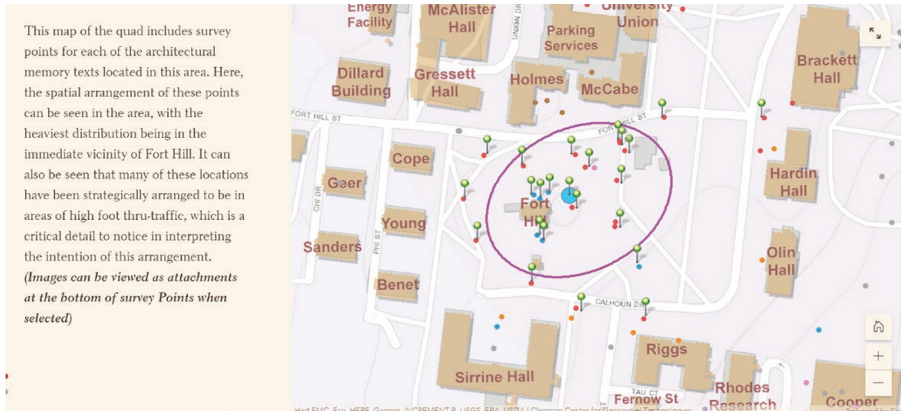


Figure 5.14. Some students found that there was a density of objects in a relatively small area, so they used spatial analysis tools in ArcGIS to give visual description to what they saw when they reviewed the collaboratively populated map of campus. Image used with permission

The digital story maps that I've included in this chapter were selected because they contained evidence of DSM to facilitate readings of space, place, and objects to make an argument about the way that memory is presented. The dual heuristics and creation of their digital story maps connected the application of digital mapping, with the process of multimodal storytelling. The resultant digital story maps were the product of several stages in the long process of seeing and responding to memory texts on their campus. It took several weeks for students to create their story maps, develop their ideas, and discover what and how they needed to say about what they encountered while reading the memory texts across the spaces of the place called their university. The process was lengthy, taking several weeks to complete, but was made easier using digital tools and affordances. DSM as both practice and product is worthy of continued application and study.

Conclusion

DSM as a practice and product of composition does not necessarily require the use of proprietary applications, or heavy programs. We understand that GIS software is expensive, and that it is a resource which may not be available to every student, teacher, or researcher in every institution of higher education. Even

though basic mapping and digital story-mapping programs are available on a non-subscription basis through ArcGIS StoryMaps, we do not advocate for any specific program or platform, preferring to offer a digital methodology that uses mapping. There are different Geographic Information Science (GIS) software programs that can be used in combination with digital storytelling affordances, as simple as MS Powerpoint, or Adobe Spark to accommodate story-mapping. We encourage the use of powerful practice, one that enables a richer multimodal composition, based on embodied readings and experiences.

Minor limitations of GIS programs are typically the reduced ability to share and collaboratively create maps. Widely accessible and modifiable web-based programs include open-source QGIS.org, openstreetmap.org, and Google Tour Builder (<https://tourbuilder.withgoogle.com>), which are effective alternatives to Esri/ArcGIS StoryMaps. Freemium programs like mapbox.com can also offer the opportunity to use DSM.

We also recognize that there is a learning curve associated with any program and application—mapping, or otherwise. In this regard we encourage scholars/teachers to consider the everyday affordances available to nearly every scholar/teacher and students: physical maps that can be modified, aerial photography, or images that convey spatial visualization to capture spatial stories and stories embedded into specific places. Examples include newspaper images that show persons in place, and people across space. Additionally, scholars/teachers can encourage students to use their smartphones to capture instances of people in place, and acting in space, and then combine them with other students' images to create a visual map.

We think that DSM, with its focus on embodied digital storytelling through analysis and interpretation using maps, could be productive across a variety of topics, issues, and writing situations.

Note

Earlier, I noted that I do not look Muslim without a hijab on. I find it critical to address that not wearing a hijab grants me many privileges and advantages that many hijabi-Muslim women do not get. I do not intend to position my experiences as more challenging than the hyper-visible experiences of the hijabi-Muslim women. These hyper-visible experiences demonstrate that hijabi-Muslim women are the subjects of direct and violent racialized attacks. My goal here is to show how my positionality and experiences were the reasons I am so drawn to Ahed and her story.

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